The Ambiguous Authority and Cultural Economy of Vernacular Biomedicine at Retail Pharmacies in Bangladesh

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Declaration

I hereby declare that this thesis represents my own original research works except where it is otherwise acknowledged in the text. It contains no material which has been accepted for the award of any other degree or diploma in any university. This thesis comprises approximately 98,857 words.

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ABSTRACT

Drawing on fourteen months of ethnography in urban and rural locations in Bangladesh, in this thesis, I reveal how biomedical authority has been vernacularised and reinvented by a different group of practitioners of biomedical practices beyond state health and biomedical legitimacy. Apart from qualified registered physicians in Bangladesh, various unauthorised biomedical practitioners like medical assistants and non-medical workers (dispensers/pharmacists) are active in retail pharmacies. In addition to formal physicians, people also rely on pharmacy owners/operators, called daktars (doctors), who practice and prescribe as practitioners of biomedicine in retail pharmacies. Despite their government-unauthorised status, pharmacy daktars remain a popular choice because they offer competitively cost-effective primary healthcare such as free or low-cost consultations, treatments, health check-ups (including pregnancy care), urgent first aid services, home visits, referrals and flexible payment options. I show how the perceived biomedical and actual cultural 'authority' of practitioners, in reality, is neither homogeneous nor universal, irrespective of state legal authorisation. Unauthorised pharmacy practitioners operate under varying legal-rational statuses and biomedical frameworks, where a cultural-moral economy of healthcare constitutes their performative and charismatic role as the transformed and readopted authority in vernacularised biomedicine. Their unauthorised identity and existence are influenced by political, cultural and economic factors such as health and drug policy loopholes, corruption of health governance, and aggressive pharmaceutical marketing. The broader level of corrupt practices in the formal sector (e.g. Gift-Bribe-Corruption triangle) also influences the informal sphere and unauthorised biomedical practices. Such inducements drive 'mental corruption' (Chouhan and Sarma, 2020, p. 214), leading some pharmacy daktars to perform unskilled prescribing, treatments and uncontrolled drug dispensing for profit, raising public health concerns. Simultaneously, the political economy of healthcare forces them toward 'unethical' strategies to negotiate their illegal status, such as bribing or using proxy pharmacists. However, pharmacy daktars persist and thrive largely because they provide needed and wanted services to the people, suggesting that it is crucial to recognise their contribution to primary healthcare. I conclude with recommendations that pharmacy daktars can contribute better and strengthen the mainstream healthcare delivery structure as a supporting workforce if their status is legalised, and they are trained and supervised effectively.

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List of Acronyms

ADDO	Accredited Drug Dispensing Outlet
AMC	Alternative Medical Care
AMR	Antimicrobial Resistance
ANU	Australian National University
API	Active pharmaceutical ingredients
BDS	Bachelor of Dental Surgery
BLDS	Bangladesh Local Doctors Society
BMDC	Bangladesh Medical and Dental Council
BPC	Bangladesh Pharmacy Council
BRMA	Bangladesh Rural Medical Association
BSMMU	Bangabandhu Sheikh Mujib Medical University
CAM	Complementary and Alternative Medicine
CC	Community Clinic
CDC	Disease Control and Prevention
CHCP	Community Healthcare Provider
CPR	Cardiopulmonary resuscitation
DGDA	Directorate General of Drug Administration
DGHS	The Directorate of General Health Service
DMF	Diploma in Medical Faculty
ESP	Essential Health Service Package
FDA	(American) Food and Drug Administration
FGD	Focus Group Discussion
GK	Gonoshasthaya Kendra
GP	General Practitioner
GP	General Practitioner
IEDCR	Institute of Epidemiology, Disease Control and Research
INN	International Nonproprietary Names
IV	Intravenous injection
LMF/LMAFP/LMAF	Licentiate of Medical Faculty/ Licentiate of Medical Assistant and Family Planning/ Licentiate of Medical Assistant and Family Planning
MATS	Medical Assistant Training School
MBBS	Bachelor of Medicine and Bachelor of Surgery
MOHFW	Ministry of Health and Family Welfare

List of Acronyms

MPO/MR/PR	Medical Promotion Officer/Medical Representative/Pharmaceutical Representative
NGO	Non-Government Organisation
OTC	Over-the-counter
PCR	Polymerase Chain Reaction
PPE	Personal Protective Equipment
RMP	Rural Medical Practitioner
SACMO	Sub-assistant Community Medical Officer
UHC	Upazila Health Complex
UHFWC	Union Health & Family Welfare Centre
VDs	Village Doctors
WHO	World Health Organization

INTRODUCTION

Research Context

In December 2019, when I met Bahar, the 'Army Daktar' to recruit him for my research; it has been 21 years since I met him last time as my general practitioner in 1998. I thus had to reintroduce myself as he could not recognise me. Surprised to learn who I was, he excitedly recalled my father, nostalgically remembering the days he used to visit our home as our family doctor. I remembered a younger man with his bicycle and the old-fashioned medical bag travelling to homes in remote villages. He is now 65 years old man. With a motorbike that has replaced his bicycle, he still travels to distant locations to visit patients at home. The marketplace where his shop is located has changed entirely as roads are more developed. His shop is now a bricked room partitioned by a medicine shelf, replacing what I remembered as a bamboo-fenced tin-shaded structure with a white curtained backside room for a patient check-up. After cherishing memories, he asked me about my present life. I described my academic and work journey, adding details about recent times in Australia, my research interest in his work and the purpose of this meeting. Before we got into the detailed discussion, a woman named Parul approached his shop counter. He told me to wait and observe the interaction.

> Parul: *do you recognise me daktar?*
> Bahar daktar: *who are you?*
> Parul: *I am sister-in-law of Hashem from the Mollah Bari (a larger descent kinship group) and my parental home is Dohar Ali Bhuyan Bari. My name is Parul, you know him (her husband), and we all prefer your medication.*
> Bahar daktar: *oh, I understand now. They (the woman and her family) are my permanent patients (he indicated to me). Okay, now tell me what happened?*
> Parul: *He (her husband) took medicine from you last time, maybe a few months before*
> Bahar daktar: *well, well, I know! He came with pain in his hands but could not take all medicines due to lack of money. But I didn't see him after that. Anyway, now what is the case?*
> Parul: *it's his hand; he cannot move because of serious pain. He cannot sleep properly at night because of this pain.*
> Bahar daktar: *I know, I know, but the problem is that he is not continuing his medication correctly; he buys medicine, say for 40/50 taka and when pain reduces a little, he stops taking medicine, and then for months, there is no trace of him! Are you getting what I am saying? Did you come now for his medicine?*
> Parul: *yes, I came to take medicine for him.*
> *Bahar daktar: okay, now is it only medicine for his pain? Do you have medicine for gastric at home?*
> Parul: *yes, we have, but please give some medicine for bater betha (arthritis pain) too.*

> Bahar daktar: *[while sorting medicine for the patient] I know your family. I knew your mother who died, I remember that day as she used to be my patient too. Now, should I add medicine for gastric or not?*
> Parul: *no, we have that medicine. You just give medicine for haater betha (pain in hand/wrist) and bater betha (arthritis pain). Will this cure both pains?*
> *Bahar daktar*: *pain will be in control as long as he takes medicines.*
> Parul: *how much for these today?*
> Bahar daktar: *Tk.40 (A$60¢) only*
> Parul: *okay, there is your payment. Now I will tell him today that I brought medicine from the daktar he used to consult.*
> Bahar daktar: *he needs vitamin and calcium supplements for joint pain. And if pain increases, then give him groom sek (warm compress) Did you get what I said, sister?*
> Parul: *yes, I got it; I will tell him too. [Parul thanked him on her way out]*

Daktar is the local Bangla accent for the English word doctor. However, in this thesis, to differentiate the nature of authority and practice, I use 'doctor' to indicate formal and registered physicians and 'daktar' for pharmacy owners who practice without legal authorisation. After his retirement from 22 years of medical assistant job in several military hospitals (including the capital city Dhaka), in 1997, Bahar started practising in a pharmacy shop as a biomedical practitioner in this village market. After a year, he opened his own pharmacy shop in the market in 1998. He became very popular and dependable in attaining trust to his patients in nearby villages and being called for most of the seasonal health problems and even in some complex cases such as typhoid or malaria treatment, although most educated people know that he is not a formally trained or licensed medical doctor. The villagers continue to call him 'Army Daktar" referencing his previous job affiliation and his military lookalike attire in the initial days after starting the shop

During my first meeting and one and half hour conversation with Bahar, six patients visited him for consultation and medicine. Four other customers came for medicine only. The consultations were all in the form of a verbal prescription. Bahar daktar, in the past, wrote prescriptions for patients but stopped providing written prescriptions in 2009. The interactions between the army daktar and patients illustrate a common way that people access pharmacy shops for primary healthcare in Bangladesh. While daktar Bahar had undertaken different types of short training and courses to qualify as a medical assistant, according to government healthcare policy, he and other pharmacy daktars like him are not formally authorised to prescribe or act as biomedical practitioners. Yet, many people like Parul in Bangladesh generally trust pharmacy daktars like Bahar and regularly consult them for primary, seasonal and sometimes emergency health problems, including prescription and medicines.

My central research question for this thesis originated from observations of such retail pharmacy operators across the country who offer consultation, prescription, treatment and medicines for primary health problems, sometimes also responding to emergencies, despite

their lack of formal recognition by the state. The term unauthorised refers to any active biomedical practitioner without a state-legal right to practice but is someone people commonly access as their primary healthcare practitioner. During my PhD proposal stage, I had referred to such a category of practitioners as unlicensed. However, in my early fieldwork phase, I learned that there are different patterns of authority in biomedical practice that are not reflected by the word “license” only. For example, Bachelor of Medicine and Bachelor of Surgery (MBBS) graduates who are yet to get their license or registration also practice regularly. People also use fake MBBS certificates to practice as a doctor for a long time which is illegal and beyond the question of licensing. I also found that medical and non-medical staff in public health centres practicing in retail pharmacies who are healthcare providers but are not authorised to practice as they lack the MBBS degree. Pharmacy daktars are not recognised as prescribers or providers; hence, they remain unauthorised under state policy yet are locally known and accessed by people as biomedical practitioners.

In the latest nationwide survey on medicine shops, 65% of the clients purchased medicines without a prescription in Bangladesh, and 49% of medicine shop prescribers and providers lacked formal training in pharmacy/dispensing (Ahmed *et al.*, 2017). Such pharmacy operators are primarily medicine sellers/dispensers but are also widely accepted as practitioners. For instance, I observed pharmaceutical companies view pharmacy owners as practitioners who provide prescriptions and consult patients. I detail this phenomenon in Chapter Five. In this thesis, based on my 14-month multi-sited ethnographic fieldwork, I present evidence from different urban and rural locations to analyse how the concept of the biomedical authority of practitioners works in Bangladesh’s healthcare market and economy. Broadly I addressed three major questions. First, how have unauthorised biomedical practitioners (focusing on retail pharmacy operators as prescribers and providers) become and remain an integral part of a major workforce of the healthcare delivery system in Bangladesh? Second, how do we understand the biomedical authority of practitioners in relation to the binary debate of biomedical versus alternative medicine in the literature on medical pluralism? Third, where do retail pharmacy daktars fit in the existing categorization of the formal and informal in the biomedical system, governmental policies, and academic literature? I analyse the complexities and power relations in the cultural economy of biomedical care and drug dispensation at retail pharmacies vis-à-vis the social status of unauthorised prescribers and providers outside of the medical-legal framework. More specifically, my analyses in this thesis address the following questions:

1. Who are the legitimate biomedical practitioners in Bangladesh contrasting the state health policy and different types of biomedical practices beyond medical-legal authorisation?
2. What do pharmacy daktars do as part of their everyday practices as biomedical practitioners?
3. Why do people access unauthorised pharmacy practitioners in their everyday primary healthcare needs, and how do they evaluate the role of pharmacy daktars?
4. What is their role during health emergencies and health crises, including the recent COVID-19 related health crisis?
5. What might be the possible unintended social outcomes of pharmacy daktars' practices and medicine-selling behaviours impacting public health in the context of Bangladesh?
6. What is the role of the pharmaceutical companies in shaping retail pharmacy practices, and how do they work with and influence the practices of both formally registered practitioners and unauthorised pharmacy daktars?
7. What are the potentials of formalising currently unauthorised pharmacy daktar as officially recognised providers in the mainstream healthcare delivery system, and what are the challenges in doing so?

In the global South nations, it is common to find healthcare practitioners like the "army daktar" introduced above, running and working in a pharmacy store to provide pharmaceutical medications who is not authorised by the government to do so (Sudhinaraset *et al.*, 2013; Ayele *et al.*, 2021). There is a growing literature, including anthropological research studying the role of unauthorised/unqualified/non-medical prescribers and providers in medicine shops and private clinics in Africa (Akande and Ologe, 2007; Wafula, Miriti and Goodman, 2012; Ayele *et al.*, 2021) and in South Asia (Rabbani *et al.*, 2001; Ecks and Basu, 2009, 2014; Gautham *et al.*, 2014; Kamat, 2014; Sharma and Mukherjee, 2014; Barker *et al.*, 2017). However, this literature is only narrowly focused on the functional aspects of unauthorized prescribing practice or the potential of formalising and training these practitioners. South Asian nations, India, Pakistan, and Bangladesh, are known for their pluralistic and unstructured medical and healthcare settings (Lock, 1984; Leslie and Young, 1992; Leslie, 1998a). Public health and social science studies here have focused on traditional and alternative medical systems with limited research on unauthorised practitioners at retail shops. Very few biomedical studies in Pakistan have identified prescribing practices by pharmacy operators and termed them 'irrational sale and dispensing of medicine' (Rabbani *et al.*, 2001). The existence of unauthorised prescribers and providers in biomedical medicine shops is evidenced in public health literature from India (Rani and Bonu, 2003; Kanjilal *et al.*, 2007;

Gautham *et al.*, 2011, 2014; Alvarez-Uria, Zachariah and Thomas, 2014; Barker *et al.*, 2017). A small number of medical anthropology studies in India have focused on unauthorised prescribing practices in rural areas (Ecks and Basu, 2009, 2014; Basu *et al.*, 2012) and on providers at urban medicine shops (Leslie, 1998b; Cross and MacGregor, 2009, 2010). In this thesis, I engage with the vast medical anthropology literature to analyse how unauthorised pharmacy practitioners operate under the political economy of health in Bangladesh and how the cultural economy of pharmacy daktars influences consumers' or healthcare seekers' healthcare decision-making. Following the work of medical anthropologists, I argue that biomedical authority is not unique to institutionally recognized and licensed practitioners such as physicians (Hahn and Kleinman, 1995) but is rather ambiguous and reconstituted in relation to the enactment of medical practices, local infrastructure, legal landscape, and the cultural economy of healthcare that shape and are shaped by patient-provider histories and dynamics (Gaines and Davis-Floyd, 2004). The concept of cultural economy is indicative of specific sub-sections of economic activities related to cultural products (Pratt, 2009; Beckert and Zafirovski, 2011). In context of health economy, biomedicine is the main and dominating system adopted by almost all governments worldwide. Retail pharmacies are a part of the main medicine sales economy. However, pharmacy owners/operators working as biomedical practitioners and their economic transactions are not officially recognised within the state medico-legal frameworks, and they thus operate in the local sub-economic zone with a cultural context. I engage the cultural economy concept in my analysis of pharmacy daktars' economic activities in primary healthcare market within the broader political economy of biomedical healthcare in Bangladesh.

There is a growing number of surveys and mixed-method studies emerging in the biomedical and public health literature about unauthorised and 'unethical' biomedical practices in rural and urban contexts in Bangladesh (Ahmed and Hossain, 2007; Anwar, 2009; Mahmood *et al.*, 2010; Ahmed *et al.*, 2011, 2017; Najnin, Bennett and Luby, 2011; Parr *et al.*, 2012; Adams, Islam and Ahmed, 2015; Rakib *et al.*, 2015; Saha and Hossain, 2017; Billah *et al.*, 2018; Matin *et al.*, 2020). Anthropological or social science studies of such unauthorised medical practitioners remain rare. So far, the only anthropological study available is Shah's ethnographic study in a rural context, where he identified Village Doctors (VDs) playing a significant role in the informal health sector in the country's healthcare service (Shah, 2020, p. 4). Despite this important work, there remains a lack of anthropological analysis and understanding regarding biomedical authority in practice and the authorisation processes that enable unauthorised retail pharmacy practitioners to coexist with formal biomedicine and to serve as common healthcare providers.

I explore how biomedical authority and authorisation processes work on the ground in the context of local practices in contrast to the state legal provisions of what is constituted as biomedicine and biomedical practice. I consider how the consumers view, access and assess the role of pharmacy daktars, who are generally their first and primary point of everyday healthcare providers. In investigating so, I also problematize the popular understanding of 'village doctors' as biomedical practitioners and their geographic locations of practice. Even in recent medical anthropology literature (Shah, 2020), there is an ungrounded idea that 'village doctors' practice in rural areas only. The problem with such generalisation is that the role of pharmacy operators has been considered as the study of village doctors exclusively in rural Bangladesh, despite the new emerging evidence showing that practitioners with qualifications like 'village doctor' or 'Rural Medical Practitioner (RMP)' can be located in very urban areas (Adams, Islam and Ahmed, 2015; Ahmed *et al.*, 2017). I also observed village doctor/RMP qualifications among the pharmacy practitioners in different urban locations in Dhaka. Hence, in this thesis, my focus is on retail pharmacy shops in both urban and rural locations since very little attention has been given to this reality in relevant social science literature.

Consistent with what it is in the literature, I also observed the influential role of the pharmaceutical industry over unauthorised practitioners in retail shops, formal physicians and state officials. Pharmaceutical companies also promote unapproved or counterfeit drugs and medical products. To do so, they often use the prevailing loopholes in state health governance surveillance. In this thesis, I examine this social phenomenon by engaging anthropological theorisation of gift and bribe to analyse how the culture of gift and bribe and the relationship between these two manifests in a range of practices in the medicine market in the context of Bangladesh. Furthermore, I reveal how the local concept of bribe is being replaced by the concept of gift in the context of interactions among pharmacy daktar, state officials and pharmaceutical companies (see Chapter Five).

This thesis contributes, in particular, to the vast literature in medical anthropology on medical pluralism and biomedical practices that I discuss next. I address the gap in existing public health literature and anthropological analysis regarding biomedical authorisation and plurality within biomedicine in the given context of pharmaceutical influences. The findings of my research contribute to the new interpretation of the significance and framework of biomedical practice and the problems of constructing boundaries and binary demarcations that are, in fact, much more complex in medical plural societies like Bangladesh. I examine related health policies and analyse the ground of politics over the recognition and categorization of healthcare providers. Engaging with medical anthropology scholarship, I theorise the context of corruption practices concerning government health surveillance and legal actions that frame unauthorised

practitioners as illegal, irrational and risky but give pertinence to their existence and activity. My findings also contribute to health policymaking as I assess a way forward for how unauthorised pharmacy practitioners can be engaged more effectively in building a better primary healthcare system and pharmacy dispensing management practice in Bangladesh that can also be useful in similar medical contexts in other countries.

Biomedicine and medical plurality in colonial and post-colonial South Asia

South Asian countries are known for cultures of medical plurality. According to medical and social historians, Ayurveda, Yoga, and Naturopathy are ancient medical and healing systems widely practised in the Indian subcontinent before western biomedicine or allopathy entered the region in the context of the British colonization of India (Jaiswal and Williams, 2017). The Muslim rulers introduced the Unani medical system about a thousand years ago, which became an integral part of the medical systems in South Asia (Naayana, Subhose and Lavekar, 2004). Both Homeopathy and western biomedicine were brought to the Indian sub-continent during nineteenth-century colonialism (Ghosh, 2010; Saini, 2016). Modern biomedicine, known as allopathy, was initially introduced to meet the medical needs of the colonial army, the British administration and the employees of colonial industries (Naayana, Subhose and Lavekar, 2004; Saini, 2016). The ingress of biomedicine and its authoritative position over other previous medical systems around the world are intertwined with the political-economic inevitabilities of the expansion of British colonial industry and administration (Keller, 2006). The positive role of biomedicine in controlling deadly disease outbreaks and developing health systems is praised by many scholars (Mushtaq, 2009; Bailey, 2013). However, many other scholars have pointed to biomedicine's role as a tool for the British colonisers to justify the establishment of colonial rule (Saini, 2016).

According to Kumar, biomedicine in colonial India was a 'double-edged sword' that collided with and marginalised local/indigenous medical systems and eventually became hegemonic, as evident in contemporary South Asia (Kumar, 1997). Such processes worked in two ways: first, developing a western discourse that constantly portrayed other medical systems as 'unscientific' (Kanagarathinam, 2018, p. 182). Second, by justifying the need to modernise local medical systems (Connor and Samuel, 2001; Keller, 2006; Saini, 2016). The colonial power established the notion of 'progress' and scientific hegemony in every sector; thus, biomedicine became dominant in health with its scientific and technological interventions (Kumar, 1997; Gaines and Davis-Floyd, 2004). David Arnold argued that the process of replacing and reforming the local culture (the Indigenous) was always justified in the name of the development and wellbeing of the colonised, a process that is standardized with colonizers (westerners) concepts (Arnold, 1993). For instance, at the earlier stage of colonisation in India,

initiatives were taken as cooperation or possible integration between local medical systems (e.g. Ayurveda and Unani) and biomedicine (Kumar, 1997; Saini, 2016). However, such projects were abandoned as biomedicine significantly advanced in the West and "with the emergence of utilitarianism as the dominant thought guiding British policy in India" (Saini, 2016, p. 531). Eventually, the colonial rulers moved away from "acceptance and appreciation of Indigenous medicine" that practitioners of western medicine had before (Kanagarathinam, 2018, p. 183).

In post-partition 1948, medicine and health systems had different directions in India and Pakistan (Arnold, 1993; Kumar, 1997; Naayana, Subhose and Lavekar, 2004). Ayurveda medicine in India and Unani medicine in Pakistan had a revival besides the dominant biomedicine. Both systems tended to be modernised and scientific in competing with biomedicine (Naayana, Subhose and Lavekar, 2004; Jaiswal and Williams, 2017). Nevertheless, western science and biomedicine remain dominant (Kumar, 1997; Hochmuth, 2006; Kanagarathinam, 2018), and other medical systems are considered 'alternative' or 'complementary'. Bangladesh, as part of colonial India and postcolonial Pakistan, thus experienced all of those shifts and modernisation of healthcare systems (Al Mahdy, 2009; Ahmed *et al.*, 2015; Shah, 2020).

The expansion of biomedical establishments further accelerated after independence in 1971, wherein the term medical became synonymous with biomedicine as the formal healthcare system. The first State Medical Faculty of Bengal was established in 1914 to train and produce Licentiate of Medical Faculty (LMF) with a four-year mid-level Diploma course who were registered as biomedical doctors under the general medical council of Britain. After the colonial era, when Bangladesh was part of Pakistan, in 1962, a shorter MBBS degree for LMF doctors was initiated for the first time. However, after national independence from Pakistan, the training courses for LMF doctors were stopped, and all the medical schools were converted into medical colleges with a full MBBS course degree to increase the number of biomedical doctors (Bare Acts Live, 2016; Saini, 2016).

Health reforms in post-independent Bangladesh and medical authority

The Bangladesh constitution was developed in 1972, when health service was declared a basic responsibility of the state, promising indiscriminate access to healthcare for every citizen. The county's first Five-Year Health plan was announced in 1973 (Evans and Alam, 2017). In the same year, Bangladesh Medical Council Act 1973 was established, and a biomedical regulatory board was given the power to control medical education development, assess the qualification of biomedical graduates and provide registration of biomedical practitioners. This

board was reformed twice, in 1980 and 2010, with amendments and included the dental sector under its jurisdiction with the name Bangladesh Medical and Dental Council (BMDC)[1]. Evidently, in post-independent Bangladesh, the quality and quantity of healthcare facilities available to the people were very inadequate (Paul, 1983). In the process and promise to improve the health service utilising available resources, the government, in its Third Five-Year Plan of 1985-90, announced to take an integrated medical system approach by developing Unani, Ayurveda and homeopathy systems of medicine on a 'scientific' basis.

Towards integrated medical systems and state authorisation of medical practitioners

In 1983, the Bangladesh Homeopathic Practitioners Ordinance and the Bangladesh Unani and Ayurveda Practitioners Ordinance were passed in the parliament, forming two separate regulatory boards to control two respective medicine practices[2]. Through this step, the state officially recognised these three medicine systems as authorised medical services to be provided as alternative medical care (AMC), complementing the central biomedical system (Shaheen and Shafiqur Rahman, 2002). The Directorate of General Health Service (DGHS) under the Ministry of Health and Family Welfare (MOHFW) is the authoritative body responsible for managing and regulating of education and practice of AMCs[3]. Alongside, there are regulatory boards under MOHFW's that regulate different practices. For instance, the BMDC is for biomedical practices. Homeopathy, Unani and Ayurveda board regulates the AMC practices, and the Bangladesh Pharmacy Council (BPC) is responsible for pharmacy management.

However, the implementation of AMC in public health institutions remains poor. In the 2017 government AMC operational plan, three AMC practitioners (one from each medicine) were to serve in medical college hospitals, and two AMC doctors (one from Unani or Ayurveda and one from Homeopathy) were to serve at district and Upazilla (sub-district) level hospitals (MOHFW, 2017). However, according to MoHFW report in 2011, only 28% of treatments were being provided through alternative medicine (Ayurveda, Unani, and Homeopathy) in government health facilities (MOHFW, 2011; WHO, 2012). In the 2019 health bulletin, the vacancy rate for AMC providers has remained at around 50% (MOHFW, 2019). Despite integrating and promoting alternative medical systems under the biomedical framework in

[1] The amendments and reforms were passed by the medical and dental Act 2010 (Act. 61). More information about the law and reforms of this board can be accessed by visiting: https://www.bmdc.org.bd/about-introduction
[2] More information about the ordinance, the regulatory boards can be accessed at: http://bdlaws.minlaw.gov.bd/
[3] Information related to government homeopath, Unani and Ayurveda education can accessed at https://dghs.gov.bd/index.php/en/

public health institutions, it is still based on a binary opposition: biomedical against others (e.g. CAM, Traditional healers etc.). Nevertheless, biomedical knowledge and practitioners dominate and control health services in both public and private sectors (Al Mahdy, 2009; Shah, 2020).

Present primary healthcare structure and authorised biomedical practitioners and providers

The public healthcare system in Bangladesh has six layers of infrastructures and service points: National, divisional, district, Upazila (sub-district), union and ward level (MOHFW, 2019). Specialised treatment, research and teaching college hospitals are at national and divisional levels. Then we have the district general hospitals, special disease control centres, and Medical Assistant Training Schools (MATSs) located. Below that is the Upazila Health Complexes (UHC). The Union Health & Family Welfare Centres (UHFWCs), Health centres and Union Health Sub-centres are at the Union level, and then are Community Clinics (CCs) at the ward level (MOHFW, 2019). Each level is designed and sanctioned with manpower based on the degree of specialisation, including the specialised doctors, general practitioners, medical/health assistants, and community healthcare providers trained with short courses. Primary healthcare is also available at tertiary and secondary levels, but CCs at the ward level up to UHC at the sub-district level are designed as formal primary healthcare service delivery points (MOHFW, 2019; Shah, 2020) in the formal public sector.

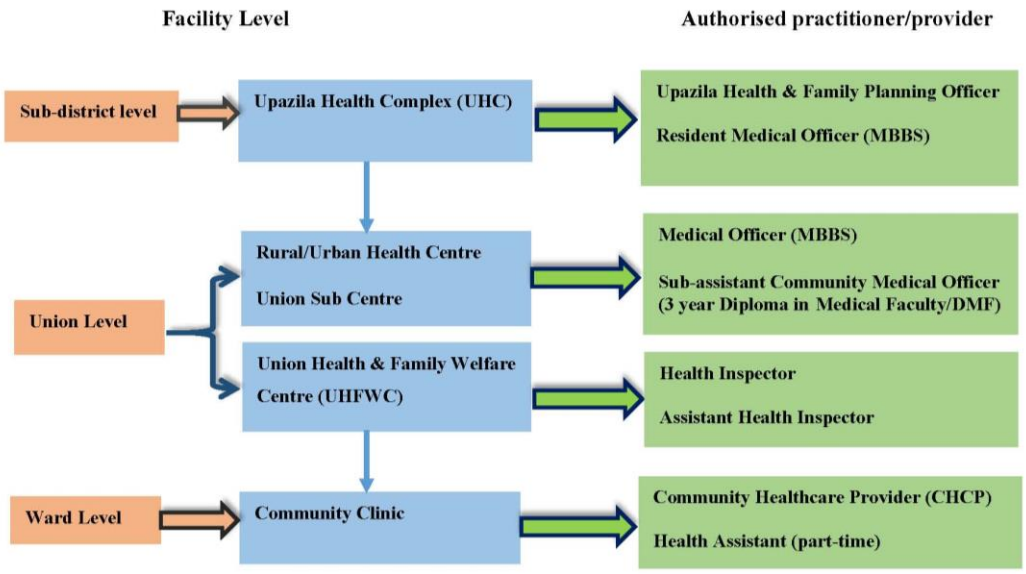


Figure 1: Authorised Biomedical Practitioners in Public Health Facilities

The context of authorisation in the private and informal sector

Despite signs of progress, Bangladesh's health system reportedly continues to face many challenges. Although according to the national constitution and health policy, the public health sector is responsible for ensuring healthcare for everyone, it has failed to deliver this. Some of the significant weaknesses of the public health sector include poor infrastructure, lack of human resources, inadequate supply of drugs and equipment, low quality of service in public facilities, corruption and political influences (Rahman, 2007; Mannan, 2013; Ahmed *et al.*, 2015; Naher, Hoque, *et al.*, 2020). Scholars have observed that one of the most significant challenges is the insufficient number of qualified physicians, absenteeism and the reluctance of public physicians to serve outside the central city locations (Chaudhury and Hammer, 2004; Hossain, Banksand and Geirbo, 2008; Naher, Hutchinson, *et al.*, 2020; Shah, 2020).

Reviewing government health policy reforms since independence, Rahman observed that officials and political leaders, through their "symbolic acts", have encouraged the private sector to participate in developing the health sector. Public sector officials rationalise this by claiming that it is difficult for the government alone to ensure the population's health. Such implicit "permissions and recognition" serve to advocate the privatisation of health and the growth of healthcare run by Non-Government Organisations (NGOs) (Rahman, 2007, pp. 193–94). Over the last few decades, Bangladesh experienced dramatic growth in private hospitals and diagnostic centres. Conspicuously, an unknown number of unregistered and unapproved private health facilities use loopholes in the state authorisation process (Z. Sultana, 2018; Hasan, 2020). Moreover, it is common for government service doctors to also practice in personalised chambers, private hospitals, diagnostic centres, clinics, and in retail pharmacies after their public office hours and on weekends (Zaman, 2005; Shah, 2020). Public sector physicians are widely entangled with these private organizations serving to benefit the 'corporate' part of the broader health sector (Shah, 2020, p. 14). In my ethnography, I also observed government physicians practising in private clinics and retail pharmacy shops. When public physicians practice in retail pharmacy shops, the owner attracts more customers in the locality.

The Bangladesh 2011 health policy [4] and the 2016 guidelines for essential health package (ESP) describe the state-authorized healthcare providers in Bangladesh at different levels in public health facilities (MOHFW, 2016). However, the policies do not explicitly clarify the differences between a prescriber and a provider, consequently producing confusion regarding

[4] The Bangladesh health policy 2011 is available in Bangla at government's website- http://www.mohfw.gov.bd/index.php?option=com_content&view=article&id=74%3Ahealth-policy-of-bangladesh&catid=54%3Abasic-link-page&Itemid=92&lang=en

the role, status and authority of different biomedical practitioners in practice. For example, only the registered MBBS practitioner can officially prescribe and claim the title 'doctor'. Yet, the assistants to the medical officer in government health centres and providers in CCs (see figure 1) are authorised to consult patients and dispense prescription antibiotics (detailed in Chapter One). In my observation, the definition and demarcation of practitioners (their status and practice) between the private and the informal sectors in healthcare are unclear in government policies and the literature. For instance, policies and literature consider any practitioner not registered or authorised to be located and practising in the informal sector regardless of the healing modality they practice. It is clear that when physicians (both government and registered independent doctors) practice outside government hospitals, including NGO facilities, they are recognised as working in the private sector. However, it is unclear if formal doctors who practice in retail pharmacy shops are considered private or informal practitioners. Moreover, it's unclear how these practitioners operate concerning state regulations and authorisation processes. So, for example, what happens to their 'formal practitioner' role status? In this thesis (Chapter One), I discuss different types of officially unapproved/unauthorised biomedical practitioners, such as medical assistants, technicians, pharmacists, nurses, paramedics, and hospital ward assistants who are also actively practising biomedicine in retail pharmacies. Medical assistants and health staff in public facilities also practice and prescribe at their workstations, acting as a doctor. I analyse why pharmacy operators as biomedical practitioners are designated to be in the informal sector even when authorised formal doctors practice in the personalised chamber of the pharmacy. How do we understand the rise of the unauthorised retail biomedicine market providing a larger portion of Bangladesh's primary healthcare offering formal biomedical services yet is considered to be in the informal sector? Understanding such questions and the plurality of biomedical authority and practice in Bangladesh requires historical scrutiny of the country's healthcare delivery systems and reforms. In what follows, I discuss how restructuring the healthcare delivery systems by different political regimes has shaped the present ground of inconsistent and contradictory authorisation of biomedical practitioners within and outside the state medico-legal boundary.

Healthcare reforms and the emergence of unauthorised practitioners in pharmacies

Since Bangladesh's independence, developing a necessary health workforce has remained a major challenge[5]. Over the years, political regimes have attempted to address the gap in the

[5] As per the 2019 Government Health Bulletin published by the Ministry of Health and Family Welfare, in the public health sector, the number of physicians per 10,000 people is 6.73 and there is one registered MBBS doctor for 1487 people. The private sector ratio is difficult to determine as the number of pubic doctor overlap with private sector ratio and less data available on private sector practitioners.

biomedical systems by developing biomedical education and increasing biomedical doctors, medical assistants and technicians. As scholars have noted, reaching this goal has been obstructed due to inconsistent policymaking and contradictory positions of different political governments that have rejected previous initiatives. Lack of accountability, interests and dependency on donor-based private initiatives, and because of corruption in local implementations such as licencing and monitoring systems are significant hindrances that affect the entire health system (Rahman, 2007; Ahmed *et al.*, 2015; Saha and Hossain, 2017; Mohiuddin, 2020; Shah, 2020). Over the last four decades, governments have taken different initiatives to support the healthcare workforce, such as comprising rural medical practitioners (village doctors), medical assistants (3-year diploma) and community healthcare providers in the public healthcare structure. The inclusion and exclusion of medical assistant and village doctors' training programs in public healthcare is a crucial factor connected to my broader research question. Next, I discuss how conflicting and inconsistent approaches by opposing political governments regarding the village doctors vis-à-vis versus diploma medical assistants in their efforts have led to the rise of the present ambiguous context and status of unauthorised biomedical practitioners, as evident by their practices in retail pharmacies.

Medical assistants and conflicting authorisation policies

In the post-independent context, to build a trained health workforce, a new public health cadre was planned in the first five-year plan in 1973, known as the Medical Assistants training program. MATSs are the designated institutions for this training project; these schools offer 3-year diploma courses supervised by the state medical faculty under MOHFW (Faiz, 2007). The first batch of Medical Assistants entered government service in 1980, and the BMDC started registering those working in government health facilities (Wilson *et al.*, 2011). These diploma holders were known as Licentiate of Medical Assistant and Family Planning (LMAFP) under the Directorate General of Family Planning (DGFP) and as Health Assistant (HA) under the DGHS. After 1996, the former was converted into Family Welfare Assistant (FWA) and the latter as Sub-assistant Community Medical Officer (SACMO), working under MBBS doctors (designated as medical officers) at the sub-districts and union levels (MOHFW, 1997; Reza *et al.*, 2012). Currently, the FWAs are trained with 18-month course certification, and the SACMOs are recruited with a 3-year Diploma in Medical Faculty (DMF) course certificate (MOHFW, 2016, 2019). According to the 2016 government Essential Health Service Package (ESP) report,

> "Medical Assistants (or SACMO, as they are also known) receive training on clinical diagnosis and prescription of a limited number of conditions through a 3 UHFWC and UHC to complement (sometimes replace) clinical work performed by the MO (Medical Officer)." (MOHFW, 2016, p. 40)

The establishment of CCs is another initiative undertaken by the state promising doorstep healthcare at the grassroots level, a project started in the 1990s after the political power shifted (Hanifi *et al.*, 2020; Riaz *et al.*, 2020). The CCs are governed by the Community Healthcare Provider (CHCP), whom the government recruits with a higher secondary certificate (grade 12) and provides three months of training. Currently, 13907 CCs with CHCPs are active nationwide at the ward level (MOHFW, 2019). The CCs are equipped with essential primary and reproductive healthcare services and 25 items of medicines and kits for CHCPs to dispense at the community level, including four antibiotics (MOHFW, 2016). Although SACMOs are trained with a 3-year diploma (DMF) and appointed to complement the (medical officers) in facilities, they are not recognised as 'doctors' in the health policy and BMDC regulation of biomedical qualification and authority.

Similarly, CHCPs only have 12th-grade schooling and are not qualified as biomedical practitioners but are given the authority to dispense antibiotics. At this point, it becomes confusing from a research point of view and for general healthcare seekers to understand who the state authorised 'doctors/practitioners' are working within the state health delivery system. This became even more complex when rural medical practitioners known as village doctors (based on retail pharmacy shops) were included in the formal healthcare for training as supporting health providers in the public healthcare system but excluded when the political government changed. Such politicised ground has made biomedical authorisation even more complicated.

Complexities with 'Village Doctors'

In post-independent Bangladesh, apart from the medical assistants training programs, in 1979 government also approved minor courses to train health workers in rural areas. The aim was to complement the formal healthcare providers and address the lack of qualified MBBS doctors. Initially, a short course named Licentiate Medical Assistant and Family Planning (LMAFP) was launched to train *Polli Chikitshok* (village doctors) practising AMCs in rural Bangladesh. Lately, the training of these rural practitioners was stopped to prevent the increasing misuse of such short courses in the informal sector, and the state government has started replacing them with new Community Clinic projects (Mahmood *et al.*, 2010; Shah, 2020). However, many private and independent organisations have emerged to offer short courses such as LMF/LAMFP and RMP (ranging from 3 to 6 months) and also work to protect the welfare of the practitioners trained by them. There are currently three such organisations active: Bangladesh Rural Medical Association (BRMA), Bangladesh Gram Daktar Kallayan Somity (Bangladesh Village doctors' welfare association), and Bangladesh Local Doctors

Society (BLDS). These organisations are registered under the Bangladesh society act 1860[6] and are not authorised by the state health authorities or BMDC. They have, however, grown in significant numbers. The LMF course gradually has evolved and is now also known as Local Medical Assistant of Family Planning [7] (Adams, Islam and Ahmed, 2015; Rahman *et al.*, 2015; Billah *et al.*, 2018; Haque *et al.*, 2018) which is actually, a culturally modified version of the original one (licentiate of medical faculty and family planning). The practitioners from these courses are commonly termed Village Doctors (VDs), unethical practitioners, or rural medical practitioners in the existing literature.

I found that SACMOs, CHCPs and practitioners with other minor qualifications (e.g. RMP, LMF) are all active as practitioners in retail pharmacies. The pharmacy operators (who are the main focus of this ethnography) are a separate body of practitioners from these government health staff who act as 'doctors' in medicine shops and practice biomedicine. For example, retail pharmacy owners who are supposed to dispense and sell medicine only also offer consultation, prescription and treatment. In detailing this ground reality, in this thesis, I reveal how biomedical authority in Bangladesh has been vernacularised and reinvented by a different group of practitioners of biomedical practices beyond state health and biomedical legitimacy. I, therefore, delineate how this unauthorised but active market of cultural biomedical 'authorisation' works in Bangladesh? How do pharmacy operators use their experience and accumulate social capital vis-à-vis their unrecognised qualifications to gain 'legitimacy' as practitioner enabling their practices to be accepted by the care seekers? Next, I discuss key concepts and analytical frameworks that I engage with in my ethnographic analysis and delineate my theoretical contribution to anthropology.

Theories and Conceptual Frameworks

I engage with a number of relevant theoretical concepts in medical anthropology to develop my analysis. Although some fields of applied anthropology may have faced a 'moral' crisis in researching humanitarian catastrophes and suffering, medical anthropology continues with its solid epistemological ground in analysing cultural practices and subjective realities (Mosse,

[6] Please visit http://bdlaws.minlaw.gov.bd/act-10/section-1782.html to see the details about society act which is not connected to medical practice legal authorisation or legislation.

[7] It is evident that Licentiate of Medical Faculty (LMF) is the original term that has changed over time from the colonial time to present. In my ethnographic encounters and interviews, two MBBS doctors and three unauthorised practitioners who hold LMF certificate also have confirmed about this history of LMF medical course. Several LMF certificate holders could not tell the full form. Two of the participants were confused whether it is Local Medical or Licentiate of Medical which made me interested in historical changes of this term and practice. Thus, I found that the term has changed over the time surviving government bans and evolved with modifications in local uses that eventually turned from licentiate medical to local medical as a term. However, even in recent public health research and studies, such history of linguistic change was ignored and the latter term 'local medical assistant' was made popular.

2006, 2011; Carrier, 2012; Fassin, 2012). I build on medical anthropologists' critical approach calling for a biocultural approach to understand the idea that culture and structural settings interact with the biological to shape social behaviours (patients and providers) and the experience of illness and disease (Bourgois and Scheper-Hughes, 2004; Farmer *et al.*, 2004). Scholars in Critical medical anthropology (CMA), for example, have unpacked the experience of individual suffering linked to macro-social processes and explained how the manifestation of illness and health of individuals also depend on the structural, economic, and political factors shaping everyday life (Scheper-Hughes, 1992; Kleinman and Benson, 2006; Pfeiffer and Nichter, 2008; Towghi, 2012; Farmer *et al.*, 2013; Witeska-Młynarczyk, 2015). Building on these theoretical conceptions in medical anthropology in this ethnography, I show that the unstructured healthcare policy implementations, inadequate number of qualified medical practitioners in Bangladesh and the absence of authorised doctors in times of crisis leave the healthcare seekers no choice but to rely on unauthorised biomedical practitioners for their primary healthcare needs. However, it does not necessarily mean that, given the choice, most people would prefer to see registered MBBS doctors due to circumstantial factors such as cost, time, proximity and availability (see Chapter Two). The inconsistent policy reforms and the political economy of health also result in the alteration of biomedical authority in the local contexts. Pharmacy daktars are one such group that accumulates cultural authority and practices a form of vernacularized biomedicine that falls outside state legitimation. Thus, my ethnography illustrates and reconfirms previous anthropological understanding that biomedicine is not a singular medical system but functions as many modalities in its cultural adaptation (Hahn and Kleinman, 1983, 1995).

Anthropologists have also noted many ways to understand medical plural contexts in Asian cultural settings (Beals, 1994). Charles Leslie's work in anthropology is considered significant in providing a comprehensive and empirical understanding. In recognizing variations in medical pluralism, Leslie identified eight distinct medical subsystems in India. These are namely classical Ayurvedic medicine; classical Unani medicine; the syncretic medicine of traditional culture; contemporary professionalized Ayurvedic and Unani medicine; cosmopolitan medicine (biomedicine); folk medicine (e.g. midwives, bonesetters, religious healers, and other specialists); popular culture medicine as embodied within the "institutions of mass society," and homeopathy (Leslie, 1998b, pp. 358–59). However, Leslie also stressed that cosmopolitan medicine (referring to modern biomedicine) "progressively subordinates other forms of practices" (Leslie, 1998a, p. 6) as in South Asia. Along with this line, in 1980, Leslie observed variations in practices such as retail pharmacy practitioners as 'alternative therapies' within cosmopolitan medicine. His analysis confirms arguments by other medical anthropologists that the patterns, stratifications and division of labour within biomedicine are neither homogenous

in ideology nor in practice (Hahn and Kleinman, 1983). Along this line, in 1980, Leslie discussed how biomedical professionals view such practitioners as fake. As he noted, the idea of utilizing rather than suppressing "unqualified practitioners" seems to the health professionals "a Pandora's box" as they are reluctant to face the puzzling issue of evaluating such practices within their socio-cultural context (Leslie, 1980, p. 193). Leslie noted that the alternative practitioners (e.g. unauthorised pharmacy daktars in my thesis) within cosmopolitan medicine are a kind of "quackery" rather than "charlatanry" as most of them do not fake their identity but use their experience in biomedicine and offer cost-effective healthcare at the local community (Leslie, 1980, p. 193). Besides such theoretical analysis in the study of medical pluralism, Leslie also suggested that effective research, planning and designing programs to train such practitioners to improve their practice "in a realistic manner" can benefit the community (Leslie, 1980, p. 194).

Informed by Leslie's conceptualisation and drawing from my ethnography, in this thesis, I explicate how consumers of unauthorised pharmacy daktars and the different stakeholders in biomedical settings (e.g. formal doctors and pharmaceutical personnel) view such practices in retail shops. For instance, I learned that people in the local community find pharmacy daktars beneficial for multiple reasons, including their round-the-clock availability, low-cost primary healthcare services and medicines, and services at home (detailed in Chapter Three). The formal doctors view pharmacy daktars unqualified and risky, but they also consider such practitioners complementary and supportive to the health system if they are supervised. Pharmaceutical companies work with pharmacy practitioners viewing them as 'doctors' whereas the state authorities still do not recognise this health workforce as formal providers (see Chapter Five & Six). Based on Leslie's work, in this thesis, I delineate how the concept of the authority of practitioners to practice in biomedicine is culturally and practically ambiguous as their legitimacy, status and continued acceptance by community care seekers are produced outside of formal government authorisation. This, therefore, requires my reflection on the theorisation of the concept of authority in social science literature.

I engage Max Weber's classical theory of authority to reflect on pharmacy daktars' sources of authority and status. Weber noted that authoritative power derives from rules and laws through the state, legal systems, and organized institutions that control individual citizens' behaviours, defining the concept of authority. For Weber, bureaucracy is the instrument through which power is established (Weber, 1948). This rational-legal authority fundamentally differs from other kinds of power, like traditional or charismatic. Through rationalisation, the authoritative power with the development of technological application and bureaucratisation controls everyday life for the well-being of citizens. Though Weber aimed to explain the positive

potential of rationalisation, he also warned it could be hazardous because of its unparalleled efficiency as a tool and its nature of generalization and quantification over people for larger-scale administration systems (Farmer *et al.*, 2013). For Weber, the spirit of capitalism views accumulating profit as religiously virtuous. He links Protestant identity and economic activities (being in business), arguing that protestant values enact potential reason for modern capitalism (Weber, 1976, p. 27). His explanation of substantive rationalization "directly orders action into pattern" that shapes the "unique standard" by which long-term practice of empirical events may be "selected, measured, and judged" (Kalberg, 1980, p. 1155). On the other hand, charismatic authority derives spontaneous leadership and works beyond rationality that often does not necessarily follow the authorized frameworks set by the bureaucratic rules.

Adapted from Jamie Lorimer's work, Hollin and Giraud argue that charisma as a concept can be analysed differently in medical contexts. For them, the meaning of charismatic authority in Weberian analysis is time-limited, aiming for a specific goal to achieve and being absorbed into the 'institutions of a community' by superseding the rational or traditional forms of authority. However, Lorimer argues that charismatic virtues of actors could be more permanent in other contexts where charisma embraces "both ecological and affective dimensions to a body's behaviour" (Lorimer 2007 cited in Hollin and Giraud, 2017, p. 11). Utilising this conceptualisation, Hollin and Giraud suggest that within specific ecological settings, any particular affective relations (their study of autism in this case) might appear as "consistent patterns of response, within a particular ecological setting, and over time and space" (Hollin and Giraud, 2017, p. 11). Charismatic qualities of the actor in such understanding could be a persistent part of the continuous knowledge-creation process instead of giving way to or overruling rational actions (e.g., laws and policies). This is particularly relevant to my research. In biomedicine, a specific qualification with the approval of the respective state health authority determines the practitioner's credentials and permission to practice. Registered biomedical MBBS graduates worldwide hold power and authority in biomedicine as per the state legal-rational frameworks. In my ethnographic research context, the unauthorised pharmacy daktars in retail pharmacies work in the ecology of primary healthcare's political and cultural economy where they function with their acquired work experience. This prior work experience is expressed as a charismatic quality to impress the patients. This charismatic quality comes through, for example, when they successfully treat the patient's illness or save a patient's life. This then also enables them to negotiate their 'unauthorised and illegal' status against the state biomedical-legal authority because their own authority is dependent on how they are perceived by the patients and public they serve. Thus, through their interactions with their patients and customers, pharmacy daktars, despite the fact that they are officially or formally unauthorized to practice biomedicine, they have gained a permanent position in the primary healthcare

setting as a care provider (including prescribing) alongside the state authorised practitioners (legal-rational authority actor), not only because they successfully treat a patient's illness, but also because they offer affordable and available health care options (see Chapter Two & Three).

Herbert Blumer's theory of symbolic interactionism in the 1950s and its later applications by Ervin Goffman is also relevant to my analysis in this thesis. According to Blumer, society emerges through 'joint actions' in social interactions by individuals who signal and interpret each other's actions (Blumer, 1986). Symbolic interactionism is concerned with individual agency, involvement and interactions through which people experience and reproduce their cultural and structural conditions in everyday life (Fields, Copp and Kleinman, 2006). Goffman's theory provides a framework to understand social realities as they form in everyday life through several steps. The 'impression management' is a situation where people engage in such interactions to imprint themselves on others, intending to help positively. People take "Dramaturgical" actions in impression management and maintain the "face work" (Goffman, 1967 cited in Fields, Copp and Kleinman, 2006). People's interactions as a group to protect the 'face' help them maintain social life, institutions and communications, which can be obstructed by inequalities inherited or created in such social interactions or institutions (Schwalbe, 2005b, 2005a). According to Goffman, people ascribe distinctive meaning to their interactions even if they are bonded and constrained by social structure and functional ruling (Filipe, 2011).

In their article, Hahn and Kleinman explained Goffman's idea that people's actions are generated by the settings in which they live and not only from a person inside as a response to their surroundings. Goffman emphasized the everyday negotiation process in a social setting that determines the actions and the interactive "selves". In some contexts, the individual 'self' is not constant; instead, it is a series of presentations that are adapted by social interactions (Goffman, 1959 Cited in Hahn and Kleinman, 1983). Hahn and Kleinman argued that the actions of doctors and patients in any encounter could be the outcome of " expectations about their roles in the settings they are in; their actions recreate those settings and "rules" through negotiation" (Hahn and Kleinman, 1983, p. 318). These observations resemble the symbolic interactions in the activities of pharmacy practitioners that I observed in my research. In chapter Two, I show that although healthcare seekers are generally aware of the unauthorised status of pharmacy practitioners, they remain attracted to pharmacy daktars' services as they offer free health advice and flexible payment options. Over time, pharmacy daktars have gained people's trust and built a positive reputation among healthcare seekers. Through their 'face' (reputation) and bonding with community members/care seekers,

pharmacy daktars negotiate their roles in and contributions to community health in a constrained environment of the legal-illegal binary construct in which they work and live. As I show in this thesis, although pharmacy daktars clearly contribute to the provision of community primary health needs, unskilled activities and profit interests by some of them do lead to unintended consequences for patients, such as prolonged suffering due to unskilled diagnosis or experimental treatments. In what follows, I discuss the theory of unanticipated consequences and engagement of this in my ethnographic analysis.

Robert Merton's classical theory about unanticipated consequences of purposive social actions is crucial to my ethnographic findings and analysis. For Merton, any social actions with a specific purpose involve motives and goals with the process of actions and choices, but such actions may not achieve desired outcomes. On the contrary, such action could create undesirable, unanticipated, and sometimes damaging results. Even with good intentions, anyone might "make an error or take an action that subverts one's ultimate goal" (Farmer *et al.*, 2013, p. 20). Merton emphasized that the "rigidity of habit" of some individuals or institutions and "the imperious immediacy of interest" act as potential reasons for unanticipated consequences (Merton, 1936). The variation of such unintended consequences can derive from any purposive actions/interventions and their causes. For example, in considering Merton's argument in a different context, scholars have indicated that biomedical knowledge asymmetries, such as the linguistic dilemma faced by health practitioners, can lead to misunderstanding of cultural language and patients' account of illness, leading to misdiagnosis (Farmer *et al.*, 2013, p. 22). Merton's key argument is that any claimed intention of any action can alter due to the circumstances (e.g. social-cultural-political-economic) regardless of its innovativeness or sound planning.

Zwart revealed a more realistic point about the conflation of Merton's two concepts: 'unanticipated' and 'unintended'. Analysing Merton's use of these concepts in different times, Zwart argues that the concept of unanticipated consequences has been replaced by its presumed substitute, unintended consequences in literature. This conflation was indicative in Merton's discussions (Merton 1936, 1968 cited in Zwart, 2015, p. 285). One such example is the use of the term in a study of policy and organisation, where the focus was on institutional limitations instead of accomplishments (Stinchcombe, 2001). Zwart further explained,

> "In light of well-established theories such as 'goal displacement', 'garbage-can' decision making, 'institutionalization', 'isomorphism', 'bounded rationality', and 'muddling through', it is hardly surprising that failure to anticipate unwelcome consequences is the rule rather than the exception in policy making." (Zwart, 2015, p. 291)

Zwart differs from the conventional use of the concept where 'unintended consequences' are not unanticipated. He argues that some social actions in specific cultural contexts (e.g. political acts, war, terrorist attacks etc.) could be unintended but anticipated. Such actions could be licitly performed by individuals or policies where "foreseeable causation of harm" is ignored by the actor or policymakers (Zwart, 2015, pp. 293–295). Zwart's analysis of Merton's theory is relevant in the context of my research. My ethnography illustrates that the negative impacts of pharmacy daktars' activities could be unintended but not unanticipated for stakeholders in Bangladesh's primary healthcare and medicine market, as many healthcare seekers, pharmaceutical companies, and the state authorities are aware that pharmacy daktars are unauthorised and formally unqualified as practitioners. In many cases, the state officials also overlook such matters as they accept bribes or gifts from unauthorised pharmacy daktars allowing them to continue their practice (see Chapter Five & Six). Such context also necessitates the discussion of the theory of gift and bribe that I contrast with corruption practices that are relevant to my ethnographic analysis.

In this thesis, I contrast gift and bribe practices with the concept of corruption as a triangle: gift-bribe-corruption. Gift exchange cultures worldwide are one the most intriguing ideas analysed in social science. Marcel Mauss's theorisation of gift-giving is still prominent in anthropology. For Mauss, gift exchange is the reciprocal and obligatory process that integrates society. As he explained, in archaic society gift is not merely an economic exchange; instead, it derives from individuals' moral, physical and spiritual essence. Giving and receiving are obligatory in such societal systems that keep bindings and chain command among clans. A person can hardly refuse to participate because refusing is "equivalent to declaration of war" and rejecting friendship (Mauss, 1966, p. 11). Schieffelin interprets a gift as a medium of social communication with rhetorical gestures and symbolic meaning for expressing statements or movements in reaction to a social obligation or political manoeuvre (Schieffelin, 1980). Individuals in such culturally embedded norms of reciprocity must maintain the binding obligations: to give, receive, and reciprocate (Gouldner, 1960). Shurmer added that the value of gifts partially impacts the nature of the social relationship, and changes in a relationship are also reflected in the changes in the value of the gift. Gifts in such circumstances are tangible manifestations of societal affiliation (Shurmer, 1971). In a comparative analysis, Schneider noted that gift-giving in western societies is contrasted with direct exchanges and is more selective as all values are not exchanged through gifts (Schneider, 1974). However, gift-giving may not have the equal obligatory nature of reciprocity in other contexts, for instance, when the receiver is a guest (Polese, 2006) or when the giver gets purposive benefits from the exchange (Parry, 1986). For instance, as Cohen showed in the Indian context, in kidney donor-receiver arrangements between close relatives or patron and client relationships, the exchange

of money and organ as gift exchange has specific purposes to serve. In such an arrangement, the receiver supports the donor with finance/credit in exchange for the donor's moral positioning to gift the organ (Cohen, 2001, 2003).

The concept of bribery is another economic dimension of gift-giving relevant to understanding social dynamics connected to the unauthorised status and legitimacy of the pharmacy daktars. Anthropologists have argued for adequate linguistic tools to analyse the gift and bribe concepts given their entwined meanings. Some anthropologists suggest separating the two concepts: gifts as informal social and moral exchange relationships and bribes as 'illicit payment' or 'surcharge' in both formal and informal economic or political transactions (Van Baal, 1975; Sherry, Jr., 1983). Studies show that the concept of 'bribe' shadows the by-law of the 'gift' despite lacking legal or moral approvals. Sherry noted that the idea of gift and bribe are often mistaken for each other in transcultural trades, as understanding the interplay between gift and bribe remains blurry in international marketing literature. As Sherry argued, the patterns of such mistakes "ranges from earnest to contrived" and the 'consequences of misinterpretations' could be severe if corporates or governments are involved in the exchange (Sherry, Jr., 1983, p. 160). The institutionalisation of soliciting gifts within corporations, including UN organisations, has motivated different gift-giving practices that are termed reward, contribution, influence or even conflict resolution (Pierce, 1980; Deal and Kennedy, 1982; Sherry, Jr., 1983). Such practices often absorb the innate meaning of the traditional practice of gift-giving in justifying the concept of bribing (Harding, 2014). Gifts could be exchanged as money, objects, services or even body parts (Sherry, Jr., 1983) or scholarships, prizes and incentives (Seipel, 1971). Some significant examples are philanthropic contributions by corporations/foundations (Simon, 1980; Kilby, 2021), employers rewarding employees or even donating organs or blood as medical aids (Titmuss, 2018). Because of such hazy borderlines of meaning between gift and bribe, the American Medical Association condemned the tendency to receive gifts from pharmaceutical companies by physicians (Sethi, 1979).

The localised practices and realities of gifts, bribes and corruption are not static. The boundaries among these three concepts are context depended and often transcended. For instance, the practice of bribery could be infused with local gift-giving norms. One such example is how the infusion of Guanxi, the traditional gift-giving practice in China, has changed over time, influenced by the capitalist forces and utilised as a persuasive tool or bribes for favours, creating confusion in understanding the concept of bribery and corruption (Yan, 1996; Yang, 2002; Harding, 2014). Harrison showed the meaning of bribery as an economic exchange in the western meaning could be considered equivalent to the traditional form of gift exchange culture in African societies (Harrison, 1999). Gupta argued that bribing in such

contexts is not just a simple economic transaction and ‘requires a great deal of performative competence’ (Gupta, 1995, p. 381). Graycar and Jancsics suggest separating gifts and bribes into four categories: social gift-social bribe, and bureaucratic gift and bureaucratic bribe to differentiate corruption in such transactions but warned that an ordinary gift might turn into an act of bribery (Graycar and Jancsics, 2016). Moreover, bribery or gift-giving in a particular cultural setting could be seen as a way of speeding up a process; hence, instead of corruption, other terms may emerge, such as ‘speed money’ (Sheperd, 2009).

Medical anthropologists have also noted that the gift-giving between pharmaceutical corporations and governments or medical practitioners is explicit and has assimilated and altered the concept of bribing (Oldani, 2004; Sah and Fugh-Berman, 2013; Sekerka and Benishek, 2017; Shah, 2020). In this thesis, I analyse how the concept of gifts and bribes are amalgamated into Bangladesh's local cultural practices in the contexts of healthcare and medicine. I explain that alongside formal physicians, unauthorised pharmacy daktars also receive gifts from pharmaceutical companies that are not considered a bribe. They pay bribes, on the other hand, to the state officials to negotiate their illegitimacy or legal clearances in the form of gifts as well. I use this fusion of gift and bribe to understand how both concepts intersect in their purposive use by the healthcare and biomedicine market actors. I analyse how different actors in the health arena in Bangladesh, including unauthorised and registered biomedical practitioners, pharmaceutical personnel and the state authority, view, relate and conceive this **gift-bribe-corruption triangle** in their respective work settings.

The final concept of this triangle is corruption, a contested issue in anthropology for a long time. Anthropological approaches challenge the conventional view of understanding corruption concepts with the western lens that generalises cultural practices outside the global North. Muir and Gupta suggest understanding corruption as a transgressive global phenomenon in several ways. They noted that corruption practices across cultures blur the public-private boundary, elide the definitions, and contravene the normative understanding of modernity and progress. Thus, defining or categorising an act as corruption, like gift-giving or bribing, is always ‘performative, evaluative and perspectival’ (Muir and Gupta, 2018, pp. 5–6).

In the context of rural biomedicine in Bangladesh, Shah argued that the concept of corruption is not similar to what is generally meant in the international corruption models because such practices are “deeply rooted in specific forms of socio-cultural and political life such as the way people negotiate law, bureaucracy and social life as everyday practice.” (Shah, 2020, p. 29). In my research, I observed similar patterns that indicate how corrupt activities among public officials and private companies at the macro level embolden similar acts among unauthorised pharmacy practitioners at the micro-level. Instead of defining the concept, I present how corrupt

actions in the formal sector and ‘unethical’ practices in the informal/unauthorised biomedical domains (e.g. retail pharmacies) become spontaneous and create a regular and accepted nature of “immoral” practices. I analyse how such corrupt and unethical practices, that were viewed in this by research participants, have become an integral part of the everyday life of practitioners, patients and other stakeholders in the provision of health care and medicines. In the case of pharmacy daktars’ practices, they also utilise their social and cultural skills, relations and knowledge as the non-economic capital that they utilize and invest in their business as biomedical practitioners and medicine sellers. I next turn to discuss Bourdieu’s concepts of *habitus* and *capital* and their relevance to my analysis in this thesis.

Bourdieu described habitus as a predisposition of individuals to believe in standard social orders and issues, perceiving and acting in specific ways in a given social or communal space (Bourdieu, 1977). Habitus is that social order by which our actions (of thinking, feeling, acting and being) are ‘structured’ and in a continual process of ‘structuring’ (Hillier and Rooksby, 2017). Individuals acquire these pre-established norms through everyday experience and internalise them as members of a particular society (Bourdieu, 1990). However, habitus is not static but works by adopting changes in practices through two parallel processes: the internalisation of the structure and the externalisation of cognitive patterns (Bourdieu, 1977; Hage, 2013). In some contexts, synchronising these processes can create a new set of norms as ‘second nature’ of practice internalised as habitus (Bourdieu, 1990). For instance, in the Georgian context, Barbara Christophe argued that the interactions of institutional limitations and purposive mobilisation of certain cultural principles yielded a habitus environment of ‘corruption prone bribe takers and briber givers’ (Christophe, 2016, p. 221). I follow Christophe’s analysis to connect Bourdieu’s concept of habitus to the idea of corruption and ‘immoral/unethical’ acts that emerged in my fieldwork among stakeholders in the provision of primary healthcare (state officials, pharmaceutical companies, formal physicians and unauthorised practitioners) in Bangladesh. I suggest that such ‘corrupt and immoral’ activities that my interlocutors observe and discussed with me, are normalised and even expected behaviours in everyday healthcare and medicine encounters.

For Bourdieu, capital is embodied with our habitus; different forms of capital are the material substance involved in exchange relationships and structure habitus (Bourdieu and Nice, 1990; Grenfell, 2014). Economic capital refers to material involvement in a common mode of production revealing membership in society (or citizenship), whereas cultural capital refers to skills and knowledge required for social interactions (e.g. acquired or institutional education) and also mobilizing economic capital (Bourdieu, 1983; Abel, 2008; Shim, 2010). Social capital refers to pre-existing common substances and social relationships that help position one’s

status in certain groups. Symbolic capital can be embedded in other forms of capital or implied by specific conformed social orders or the value system of the meaning ascribed to capitals (Bourdieu and Wacquant, 2013). Based on Bourdieu's theory, the concept of Cultural Health Capital (CHC) thus, refers to all types of cultural products and practices as a form of cultural capital, including dress, personality, eating habits, communication skills, scientific knowledge, educational qualification and so on (Shim, 2010; Dubbin, Chang and Shim, 2013). In engaging these ideas, I discuss how unauthorised pharmacy practitioners and providers consider their working experience with biomedical doctors, attire style and verbal skills, clinical skills, and updated knowledge about new drugs and infections as advantages in their profession. I argue those are the cultural capital for pharmacy daktars, and their relationships with the community, pharmaceutical companies and pathology diagnostic labs, doctors and state authorities may work as their social capital. While unauthorised pharmacy daktars are commonly accessed by their customer, they remain under constant monitoring from the state and pharmaceutical companies. Thus, next, I discuss the concept of surveillance in social science and how I operationalise it in analysing my fieldwork observations and ethnographic findings.

I consider surveillance in relation to the state's controlling authority and power over unauthorised biomedical practices and medical marketing. I engage Foucault's analysis of this concept derived from his study of power and discipline (Foucault, 1978, 1995, 2012). He noted that the centralized bureaucracies consolidated disciplinary power to control people's social health and welfare in eighteenth and nineteenth-century would emerge as a form of 'governmentality' that marked a shift away from seventeenth-century notion of 'king's sovereign' power over people (Foucault, 1991). In the classical age, the king had "the right over life" of his subject but "did not know, or seek to know, what went on within the walls of people's homes, beds, prison cells, or bodies" (Farmer *et al.*, 2013, p. 27). The emergence of eighteenth-century cultural and political institutions such as the prison system, the medicalisation of the mad, and the emergence of the clinic introduced discipline as a new tool focusing on quantifying and documenting biological aspects of life for statistical analysis. Foucault argues that such institutions created norms about everyday knowledge of life by granting meaning to what is accepted as "sane and insane, licit and illicit, healthy and sick" (Farmer *et al.*, 2013, p. 26). Thus, as he pointed out, western societies moved from 'sovereign power' controlled by force to 'disciplinary power that is controlled by surveillance or monitoring people's acts and movements.

For Foucault, biopolitics is the state mechanism for governing/controlling the entire population as a group through regulation of biological aspects (birth, health etc.) based on the production of knowledge about the population, such as through the census (Foucault, 1990, 1995). These

governance technologies aim to control the individual and the population. Thus, governmentality is the “conduct of conduct” individual and social lives (Dean, 1999). In some contexts, the application of health or medical knowledge as a tool of biopolitics could be more sophisticated. For example, Cohen showed in the context of human tissue harvesting and organ transplantation in India, the mechanism of biopolitics works in a form that he called ‘two moments of technique: recognition and suppression. As he argued, the immune recognition and tissue typing technology were not serving the effective transplant medicine but the immunosuppression technology of biological coding system ‘ultimately materialized the population-rather, specific population- as viable donors’ (Cohen, 2001, p. 11). In the new technique of suppression, it is not necessary to find a cross match (sameness of genetic code) or screen a larger population to identify potential organ donors; rather, ‘one could recruit flexible and specific donor subpopulations’ (Cohen, 2001, p. 11). Poverty and indebtedness combined with the new biological science of immunosuppression, as Cohen showed, help to set the ground for kidney donor-receiver conditions where economically and socially vulnerable populations can be exploited and coerced to be organ donors/sellers through the exchange of money (as credit or selling value) and organ. Cohen termed this a ‘shift to multiple biopolitics of suppression’ (Cohen, 2001, 2003).

Governmentality as a tool of broader biopolitics does not exclusively work as a ‘negative relationship of power’ that enforces and characterises individuals by discipline and regulation (Ferguson and Gupta, 2002); instead, it works through the agency of subjects by encouraging and self-disciplining for productivity, welfare and security (Foucault, 1979; Towghi and Vora, 2014). Technologies of discipline are enacted to control individual actions/behaviour, such as the panopticon used to surveil prisoners 24/7 (Foucault, 2008; Lyon, 2018). Engaging with Foucault’s panopticon concept is prominent in analysing and connecting with modern surveillance and self-regulation in studying health and illness (Couch *et al.*, 2015).

The notion and measures of panopticon and surveillance in the contemporary world shifted rapidly and included high technologies with electronic and digitalised monitoring systems. Such technologies include closed-circuit cameras, database records, smartphone apps, thermal scanners, and even drones (Couch, Robinson and Komesaroff, 2020). In Foucault’s analysis, these measures are used to control the population and their activities to both protect and advance state interests, which include the need for a productive workforce. I connect the surveillance concept by analysing monitoring mechanisms used in the market of biomedicine by the state and pharmaceutical companies to influence or control behaviours of unauthorised pharmacy daktars. I also discuss how pharmacy daktars work under both public (government) and private (pharmaceuticals) surveillance systems. They also use their social network and

multiple strategies to negotiate with that surveillance to suggest an alternative angle to how we can analyse and understand the concept of surveillance in relation to unauthorised pharmacy practice (see Chapter Six). In Chapter Three, I discuss how Bangladesh's state surveillance systems in healthcare collapsed during the COVID-19 pandemic and made corruption transparent in public and private health sectors. More specifically, in Chapter Three, I engage Klein's concept of disaster capitalism to analyse multiple realities of healthcare in Bangladesh during the pandemic time of my fieldwork in 2020.

The idea of disaster capitalism (Klein, 2007) in my thesis concerns the unprecedented impact of the COVID-19 pandemic on my fieldwork, research and thesis writing phases. For Klein, every natural or human-made disaster entails private corporations influencing state governments to pursue reform policies that ultimately only serve the business interests of corporations and create further suffering for people subjected to the original disaster. Klein terms such reform policies as 'shock therapy. She notes that the actual disaster (e.g. hurricane, tsunami, war, coup etc.) creates massive damage as the first shock when people are left devastated with many challenges against recovery from the disaster; this is especially the case for disadvantaged groups and poor in any country. The aftermath of any disaster forces countries and groups to take strategies to recover from the shock. To do so, as Klein explained, the collaboration of governments, corporations and politicians is established that eventually exploits the dread and panic of the people through 'economic shock therapy, which is, in fact, the second shock: that is the execution of neoliberal economic and political restructurings in the name of reform. The already affected people or groups have fewer options to resist or anticipate the consequences of restructuring policies and reforms, leading to the third shock (Klein, 2007; Schuller and Maldonado, 2016; Balamayuran, 2020).

Klein showed that in the United States, after Hurricane Katrina left a devastated New Orleans in 2005, the government took the disaster as an opportunity to reform and privatise the state education system, which eventually disadvantaged students making them more vulnerable (Klein, 2007, pp. 25–27). Klein argues that disasters, regardless of their kind, give private corporations scope to capitalise on people's vulnerabilities by influencing public policies and stimulating free-market policies for their interests and benefits. However, disaster capitalism in health crises is nothing new, and the COVID-19 pandemic is an extraordinary example (Balamayuran, 2020; Joyee, 2020). I conceptualise disaster capitalism in the context of the Bangladesh government's strategies combating COVID-19 that failed to serve people. I show that such failure gave local public officials and private corporations opportunities to exploit and capitalise on life and health crises. I also analyse individuals' profit-making interests and activities at the microeconomic level (e.g. in retail pharmacies and by pharmacy daktars) to

show how capitalism trends emerging in the pandemic economy are mirrored at the local level whereby loopholes in the state policies are taken advantage of.

Research Design and Methodologies

This thesis is based on my 14-month long multi-sited ethnographic fieldwork in Bangladesh (from November 2019 to January 2021 in urban locations in the capital city Dhaka and areas in a rural district). I worked as a 'native anthropologist' working at home; hence, I have two major points to discuss here. One is the relevance of multi-sited ethnography. Second, my ethical position as a native ethnographer draws from well-established reflections in anthropology about the 'field', fieldwork, and the ethnographer. The core concepts in anthropology such as 'field', 'ethnography', 'culture as field' (Clifford and Marcus, 1986; Appadurai, 1991; Marcus, 1995; Gupta and Ferguson, 1997; Passaro, 1997), 'fieldnotes' and 'participation' (Jackson, 2015; Nardi, 2015) have evolved and have been continuously deconstructed (Turner, 1989) over time. Such evolving nature also has allowed anthropologists to expand the techniques and tools to conduct their research. The concept of multi-sited ethnography as an anthropological field method was first introduced by Marcus in 1995, who described it as an approach fitting to study society or research subjects that are fast-changing and exist beyond a single location. The ethnographer moves to different places in this method instead of staying in a single area. (Marcus, 1995).

Multi-sited ethnography and field

In this thesis, I discuss how retail pharmacy owners play their biomedical practitioner role in Bangladesh. Since such authorised 'doctors' are located in retail pharmacies widespread across the county, I moved around and lived in different locations for an extended period to follow such practices in various sites rather than doing fieldwork in a single area. Marcus argued that in this 'mobile ethnography', the fieldworker is 'here and there' rather than 'being there' and traces 'a cultural formation across and within multiple sites of activity' (Marcus, 1995, p. 96) following a research subject active in different places. The multi-sited approach was more effective in my project because following a research subject[8] in multiple places allowed me 'to naturally move from one site to another as developments" unfolded and helped me to understand 'how culture is constructed across multiple sites rather than within one' (Duijn, 2020, pp. 282–83). Collecting data from multiple sites also allowed me to gain a

[8] Marcus suggested six mode of following: the people, the thing, the metaphor, the plot, story or allegory, the life or biography and the conflict.

comprehensive and comparative understanding of urban and rural variations of practices in retail pharmacies.

The notions of field and place in anthropology have changed over time, and ethnography has moved from the classical 'being there' in other cultures to learning cultures 'at home' (Clifford, 1997; Hannerz, 2010). Gupta and Ferguson argued for redefining the concept of field and fieldwork as an anthropological trademark with more "attentiveness to social, cultural, political location and a willingness to work self-consciously" (Gupta and Ferguson, 1997, p. 5). Researchers in such cases need to "decentre" the idea of the field and investigate "the interlocking of different social-political sites" (Gupta and Ferguson, 1997 cited in Duijn, 2020, p. 284). Some anthropologists used Appadurai's concept of 'scape' in contextualizing the field of medical anthropology as Medicoscape (Hörbst and Wolf, 2014), Healthscapes (Clarke *et al.*, 2010; Clarke and Shim, 2011) and medical landscapes (Hirsch, 1995). Scholars have noted that the interest of the ethnographer constructs the field as a 'selected context specifically relevant to his or her own research project' (Herbst, 2016, p. 21) and makes the ethnographer a 'place maker' (Madden, 2017). My training in medical anthropology encouraged me to see 'what is going on' in the context of biomedical authority and practices in my home culture relating to the state authorization of health and medicine and the pharmaceutical industry. Such interest shaped what came to be my field and fieldwork. I tried, as far as I could, to be reflexive as a researcher and look at my surroundings, following what Passaro pointed out that the critical point of such reconfiguring of field and ethnography is 'The challenge to represent and understand the world around us more adequately' (Passaro, 1997, p. 161).

Field sites

The fieldwork for this thesis was conducted in six different locations in the capital city Dhaka as urban sites and four different places in rural sites in Lakshmipur district located in the south-eastern part of the country. These sites are the main locations, but I travelled to many other related locations, including government health facilities, public and private hospitals and wholesale medicine markets. Since unauthorised biomedical practices in retail shops can be located across the country, the site selection could have been random regardless of the difference in geographic and cultural considerations. However, I relied on key informants and my observation during rapport-building attempts to be more purposive in site selection based on the feasibility of this project timeline, funding and my previous knowledge of the sites. Such strategies helped my access to the field, time management for travelling, staying in the field and saving time which are crucial in multi-sited ethnography as a method and for this project with time and funding circumstances.

In mid-November 2019, I travelled to the rural site to meet the ‘Army Daktar’ from where this research idea had originated. After a few days of rapport-building activities in accessing the field, I realised that while I faced less ‘cultural shock’ as I share the same culture with them, my field, as previously Zaman mentioned, ‘was not completely devoid of surprises’ (Zaman, 2005, 2008). I grew up in a neighbouring village, but I found myself as an outsider to the participants despite my shared background, just as Hannerz noted that in a specific context, ‘there are no real natives’; instead, the researchers ‘are more like strangers’ (Hannerz, 2010, p. 210). Because of the nature of the fieldwork, I had to travel to different sites and locations. I used my social network to make the rapport-building process quicker. I worked on building a trusted network at the beginning by which I could map the locations, decide on participant selection, and gained quick access to the local medicine market. I collected data in four locations/facilities in Lakshmipur district as rural sites. The Kalir haat and Kabir haat market places were two primary locations that interacted with retail pharmacy daktars. I also reached formal biomedical doctors in two government health facilities: a union health sub-centre and a district hospital. In mid- February 2020, I travelled to Dhaka for data collection in urban sites.

Map1: Bangladesh on the world map[9].

[9] Map created by the researcher on MapChart, a free software at https://www.mapchart.net/world.html

Map 2: Broader field sites marked on Bangladesh map[10]: BLUE circle **urban** site in the capital city Dhaka and GREEN circle **rural** site in Lakshmipur district.

I selected the capital city Dhaka for my fieldwork as this is the most populated and largest city in the country. The principal interest for medical care-seeking and most high-profile medical services are centralized here. It helps me to have more representative (Rice and Ezzy, 1999; Daymon and Holloway, 2005) and a comprehensive understanding of the country's healthcare delivery and medicine dispensing practices since unauthorised biomedical prescribing in pharmacies exists across the city. For example, Adams et al. have reported that between 2013 and 2014, there were 12809 healthcare facilities found in Dhaka city, whereas 5420 were privately running facilities only in Dhaka City Corporation. Among the private facilities, 603 were reported as 'informal' (unauthorised)[11] and located in all parts of the city (Adams *et al.*, 2015), which justified Dhaka as the ethnographic field for my research. While I followed such statistics and literature in my site selection, I also found different directions from my ethnographic journey that led me to locations beyond my initial plan (e.g. hospital outdoors or the country's largest wholesale medicine market). Gaining experience from the rural site about the need for local connecting resources, I first developed a contact list of my social and research network to work with to gain access to the local community and retail pharmacy markets. Data have been collected from five major urban locations in Dhaka:

[10] The map was downloaded and edited by the researcher as permission granted under the GNU free documentation license. For details on copyright and permission visit: https://www.gnu.org/licenses/fdl-1.3.html
[11] Where a formal qualification such as MBBS/BHMS/BUMS/BAMS was not available or proven by the practitioners

Badda, Mohammadpur, Mirpur, Jatrabari and Uttara. Participants who helped to access the local field, build rapport, and select research participants include a shop or position owner in the market, NGO workers, my former students and friends who are local residents and well known as knowledgeable or having a connection with retail pharmacies in the locality.

Data collection tools, techniques and analysis strategy

My ethnographic research methodologies for data collection entailed participant observation, informal conversations, formal interviews, group discussions, life histories and shadowing of key individuals and photographs pertaining to my research inquiry and site, and direct observation of specific activities. My first point of contact in this research was the owners of retail pharmacy shops who are biomedical primary healthcare practitioners/providers, and the community healthcare seekers to those pharmacies. To gain a holistic overview of retail biomedicine relating to stakeholders in this field, I also interviewed pharmaceutical personnel (sales officers and marketing executives), formally authorised physicians, and academic researchers.

I used participant observation as a tool and stayed in a retail pharmacy shop, observing and documenting ‘what is happening out there’ (Emerson, Fretz and Shaw, 2011; Sanjek and Tratner, 2016). In each shop, I conducted observation for five days. I stayed in each shop from the morning to evening (about 10 hours) for a day and then a minimum of five hours in the following four days. One point to be noted here is that the nature of retail pharmacy shops is very different from those we see in a developed country. Most of the retail pharmacy shops are very casual in Bangladesh culture. In most cases, the owners act as sellers and prescribers, who also usually reside in the same neighbourhood or community. One can enter the pharmacy premises and query, discuss with the owner, or even ask or share information with other customers. For instance, in some cases, customers approached me for help reading prescriptions, calculating prices and even for advice about their health problems. Since the incoming customers saw me often talking with the owner, they considered me a doctor, store person, or expert on medicine. Such sharing between ‘strangers’ meeting in a retail shop is common and culturally accepted. Therefore, I did not appear to be an intruder to customers but rather had friendly interactions during my stay in the pharmacy. Marcus argued that in multi-stied fields, the ethnographer becomes a ‘circumstantial activist’ because of the rapid incidental shiftiness of the ethnographic field (Marcus, 1995, p. 113). The pattern of my participation took place in two forms. In most cases, I stayed in the shop outside the medicine counter/desk, in the waiting space for the customer. In some cases, I stayed inside the desk with the owner/operator as an assistant, helping serve customers and observing simultaneously. Such a ‘circumstantial activist’ role allowed me to closely observe pharmacy

owners' roles and daily activities and the interactions between clients, retail drug shop operators, and pharmaceutical agents.

A pharmacy shop usually remains busy, and getting time from the pharmacy practitioner for private discussion in a quiet place was a practical challenge; urban shops are busier than rural ones. Regardless, the evening is the peak hour for pharmacies as customer influx is more. In most cases, I conducted interviews with pharmacy practitioners at their desks during the off-pick time, such as mid-day. Community people as healthcare seekers were included in the Focus Group Discussion (FGD) to collect lived experiences of medical encounters and reasons for the choice of practitioners at pharmacies. I visited doctors at their chambers for interviews. I also moved with pharmaceutical, and Medical Promotion Officers (MPOs), observing their daily routine work at their workplaces and talking about their engagement with chemist shops and medical professionals. My ethnographic journey led me to visit and observe the country's largest wholesale medicine market in Dhaka. I had informal discussions with business owners in the market and collected information about medicine storage/preservation and transportation systems.

The observation and interviewing process helps me document the interactions and analyse local cultural patterns of medicine prescribing, symbolic interactions between healthcare seekers and drug shop providers, and the dispensing and circulation process. I tried to stay at one site, complete the necessary observation and interview sessions, and then travel to another site. However, I had to travel back and forth between sites because of circumstantial shifts and changes in appointments by the participants. Travelling in urban locations in cities like Dhaka is also found to be time-consuming and challenging as more time is needed to invest due to traffic jams. To avoid that issue, I stayed at friends' places in some locations until I completed data collection in that particular locality. I travelled to other sites daily from my residence. Besides formal interviews, I primarily relied on my casual appearance as a local and had chitchat conversations in tea stalls with people in the local community.

Along with participatory observation and interviews, I also collected related documents, policy (state level), pharmaceutical materials such as promotional guidelines, and advertising materials used at drug shops/ pharmacies to reach consumers. These are significant as they influence, direct and shape prescribing and medicine dispensing patterns and legal mandates. Also, these help me analyse the practical effects on the decision of consumers for medicine and how health risks and management are defined, medicines are marketed, promoted and reach the consumers (Dumit, 2012). Since I emphasise unauthorised practitioners at retail pharmacies, I could not focus on other prescribing patterns and medicine dispensing practices. For example, people might have a practice of prescribing from their general experience with

biomedicine. Such practices may include nurses, medical workers, pharmaceutical personnel or even individuals not qualified or authorized to prescribe legally but have biomedical knowledge and prescribe for their family's primary healthcare needs. I collected some information about such practices as a by-product. I also interacted with wholesale medicine shops and dealers. However, I do not include those details in this thesis.

Table 1: Participant distribution in data collection

Category	Tools/Techniques	Site breakdown		Total
		Urban	Rural	
Retail pharmacy/drug shop	Participatory observation	21	5	26
Unauthorised practitioner at pharmacies (owner/operator)	In-depth interview	16	5	21
	Informal discussion	4	2	6
Community healthcare seekers availing pharmacy services	Focus Group Discussion (FGD)/In-depth interview	25	13	38
	Informal discussion	8	6	14
Authorized prescriber/major/minor qualifications (MBBS, DMF)	In-depth interview	4	5	9
Pharmaceutical/medical promotion officer (PMO/MPOs)	In-depth interview	4	5	9
Pharmaceutical marketing executives	Key informant interview	6	2	8
University Teacher (Pharmacy)	Key informant interview	1	0	1
Total		**89**	**43**	**132**

Formal interviews and group discussions were audio-recorded in most cases; only in a few cases did participants not agree to record. I took notes on those occasions as it is better than relying on memory only (Emerson, Fretz and Shaw, 2011). I also took photographs when possible, and consent was given. I used a notebook to take instant notes during observation and interviews throughout the fieldwork. These are mainly the field notes based on which I developed detailed documentation of all information and happenings in a digital file (MS Word). I also maintained monthly reporting to my supervisor, elaborating significant updates in the field. I found that those monthly reports helped me during planning data analysis. Interviews and discussions were conducted in the Bangla language, and I then transcribed selected audio records into English for analysis. All the formal interviews were given a coded name for better data management. Then I developed a thematic plan based on research objectives and questions to sort and organise relevant data. I used highlighted colours and commenting as coding methods to jot down relevant thematic data into a new word file for analysis. The following table shows the distribution of participants.

Ethnographic experience

Anthropologists have revealed and debated the ethical implications of the unequal power relations between researcher and their 'native' research subjects (Gupta and Ferguson, 1997), relating the ethnographer's role as insider/outsider (Turner, 1989). Many anthropologists have

discussed their experiences in ‘going native’ as adventures and joys (Kanuha, 2000) but also entailing troubles and dangers (Passaro, 1997). The problem of anthropologists researching an issue situated in their own culture, as Van Ginkel described, is “how to get *out* of his culture” compared to those who work in other cultures and ‘trying to get *in’* (Van Ginkel, 1994, p. 12). However, many anthropologists who have worked at ‘home’ reported that the ‘native’ could also be challenged in terms of the researcher’s identity (race, class, gender, occupation, religion etc.) and face similar challenges in the field as being both insider and outsider (Van Dongen and Fainzang, 1998; Kanuha, 2000). Being a ‘native ethnographer’, I also experienced challenges in the field, specifically, what has been reflected in anthropology regarding ‘insider-outsider’ and bias–challenge debate.

I found that accessing the field in a multi-sited field is much more challenging than a single location as I had to move to different places with my partial experience (Clifford, 1997) and re-negotiate my access to each site (Duijn, 2020). To ensure quick access and rapport building in the field, I used my personal and social network on all sites and selected my key informants, one in each location, who could help introduce me to the local pharmacy daktars. As a native, I found my skills in speaking local accents helped me build more comfortable relations with participants, particularly in urban areas. When participants found that I share the same local culture and language or that I am from the same region, they were more comfortable opening up and sharing their stories. Sometimes my identity of university lectures in Bangladesh helped me gain trust and consent more easily. A few participants asked me for suggestions and advice on their children’s higher studies or how to obtain admission to universities from a reciprocal expectation of their information. I shared whatever information I had, with them, making the conversation more interactive and informative for my research.

While my native identity and background helped me gain access, the sensitivity of my research topic made participants cautious and suspicious about using the information I was collecting. In some cases, I ended up with refusal of audio recordings and even refusal of interviews. It is necessary to note the factors that significantly impacted my fieldwork. One is that I entered the field at a time of rapid actions and investigations against counterfeit and sub-standard medicine, and fake practitioners (falsified certificates or unlicensed)[12] are operating by law enforcement agencies. This is already a feared concern for retail pharmacy owners everywhere. Such fear intensified during the COVID-19 pandemic that hit the country in early March 2020, just at the earlier stage of my fieldwork in Dhaka city. Although I was always

[12] This issue of counterfeit medicine market has long historical context since last few decades. For getting sense of a more recent situations please see the news article at: https://www.dhakatribune.com/bangladesh/nation/2019/02/03/detective-branch-police-busts-fake-medicine-making-gang-in-city

accompanied by a local community member and followed all the ethical protocols (e.g. providing information sheets and explaining participation rights), some participants were hesitant to talk. On every occasion, most of the participants thought I was from a pharmaceutical company and wanted to discuss drug promotions. On many occasions, almost all participants thought I was a journalist or a government detective with a disguised identity, especially when discussing unapproved practices, counterfeit medicine, and corruption.

Such fear, combined with the local political power structure, posed certain challenges in my multi-sited fieldwork. For example, on one occasion in an urban location, a pharmacy owner welcomed me, we had an informal discussion, and he also promised to provide more information. However, the following day I received a phone call referring to the local pharmacy association, and the political leader of the ruling government asked me to stop data collection in the locality. In this situation, I found that the participants less appreciated the research documents (information sheet, approval, etc.). Eventually, I had to stop data collection there and move to another site. The experience made me realise what Duijn described how in some contexts, a researcher such as myself, a Bangladeshi doing research in Bangladesh, feels ‘on guard’ rather than ‘at home’ (Duijn, 2020). In such a situation, I had read the information sheet and reconfirmed that information would not be disclosed outside of the Australian academic audience; the participant then felt comfortable to discuss. Thus, my foreign residency and identity helped me gain the participant's trust in data confidentiality.

The most significant point in this fieldwork is the impact of the COVID-19 pandemic. Anthropologists are trained to expect unanticipated events and interference in their field activities in an ethnographic fieldwork context (Faubion and Marcus, 2009). However, medical anthropologists have reported their challenges working in contagious outbreaks ecology that often substantially disrupted ethnographers’ fieldwork (Benton, 2017; Venables and Pellecchia, 2017; Manderson and Levine, 2020). The COVID-19 pandemic that first hit China in December 2019 showed unprecedented scales worldwide, leading to shut down of the global economic and social life. The outbreak of COVID-19, known as Coronavirus in Bangladesh, forced the government to shut down all public and private offices except the emergency service providers from 26 March 2020.

The lockdowns impacted my fieldwork significantly by restricting my mobility and reshaping my data collection tools and processes. The situation required change in my fieldwork interactions with the research participants at the retail pharmacies and how I contacted pharmaceutical representatives and formal physicians. After the official lockdown, I had to stop going out, and my fieldwork came to a dramatic halt for nearly two months due to the total shutdown. All of my informants cancelled the appointments. Therefore, the new tool to continue the disrupted

ethnographic inquiry and adapt to outbreak circumstantial ecology was to use technology. During those times, I worked to call participants by phone at regular intervals in the early days of lockdown and gain daily updates about their experience. Phone calls for triangulating information or informal talks about perceptions and opinions helped me to gather data and information about current pandemic situations and updates. I found much of that data beneficial to my research project. Thus, for the time being, I found that it turned out to be *phoneethnographic* as method I used. I also collected information from the internet and verified it with my informants who work in media and pharmaceutical companies. However, this made me wonder if it is possible to obtain consistent information via a phone conversation to adequately compensate for the conventional face-to-face method, staying proximal to the participants in their living or workplace.

After the lockdown was lifted, I again started fieldwork, but I found my data collection tools were being reshaped due to COVID-19 health guidelines such as social distancing rules. For example, on a day of observation and interview in a local pharmacy, I saw white circles in front of the shop where customers are requested to stand and maintain distance. A rope was tied to the shop desk/counter to indicate the distance for customers from the pharmacy operator preventing their close contact. My fieldwork appearance and interactions in post-COVID-19 time were also reshaped to wearing a mask, keeping sanitiser and alcohol pads in my pocket and sitting at a distance from the informant/participant while discussing or conducting participant observation. I had to keep a distance and follow specific health manners while interacting with participants, which is unconventional for the classical concept of participation in the observation process and interview in anthropology. At that time, it also made me wonder if future ethnographic fieldwork would require the ‘immunity passport’ for the researchers to get travel approval or access to the field. I also experienced mental stress during this pandemic. My family had stayed back in Australia, and I could not return to the university after I had completed my fieldwork within the planned timeline. However, being a native researcher, I had some benefits during the pandemic as I could access support from my relatives.

Ethical concerns

Ethical issues are attached to every ethnographic fieldwork (Murphy and Dingwall, 2011). I had to avail myself of the ethical approval for the research from the Human Research Ethics Committee at the Australian National University (ANU). I applied with all required documents and questions answered by the committee regarding my strategies and steps to maintain ethical integrity with the participants in the field and obtained my ethics approval in October 2019. Among the major concerns in ethics, the application included informed consent, detailed research information, the right to participate and information on the identity disclosure of the

research participants (Murphy and Dingwall, 2011). I collected all the primary data for this thesis from different locations in Bangladesh. In most cases in the field, I availed written informed consent. I provided the information sheet to participants consisting of all the terms and references of my research, data confidentiality, security and disclosure, and further contact information. The consent form and information sheets were translated into Bangla. I read out those to the participants and answered their questions about the use and security of data. Participants were also explained their right to reject to answer or withdraw from interviews if they did not wish to continue the interview. I availed oral consent in some cases when participants did not sign the written consent form.

Scholars noted that sometimes the data collection process in ethnography and observational studies might affect the research participants in different ways that could be harmful and intensify risk for them (Murphy and Dingwall, 2011). I worked with unauthorised biomedical practitioners in retail pharmacies. I also discussed malpractices in the medical sector with all participants, including formal doctor pharmaceutical agents, where some questions were about 'unethical' activities. To avoid third-party identification, I used pseudonyms for all the participants' names, retail pharmacy shops' names and images, and locations used in the thesis to make them anonymous. I only used the original names of larger sites of fieldwork. After completing the fieldwork, I kept all the information collected from this study on my personal laptop and virtual drive at ANU and nowhere else. I stored any identifying details in a separate file from the rest of the research data. Following the university rules, all identifying details will be removed after the five-year storage period.

Structure of the thesis

In addition to the introduction and concluding remarks, the thesis comprises six ethnographic chapters. The introduction provides the research context, aim and central questions, the historical background of the subject and my rationale, the research's theoretical frameworks, and the research design and methodologies. Chapter one introduces the various types of biomedical practitioners in Bangladesh active at different levels (in retail pharmacies and government facilities) and operating outside the state-biomedical legality. Focusing primarily on pharmacy daktars (owners/operators), I discuss how pharmacy owners function as practitioners and thrive without legal qualifications or approval. Here I problematise the popular understanding that such practitioners are exclusively rural-based, demonstrating the evidence that they are in fact located and practice in rural and urban areas across the country.

In Chapter two, I describe the everyday activities of pharmacy daktars, including their services (available at the shop and at patients' homes), interactions with customers and patients, and

strategies to attract customers. I analyse how pharmacy daktars' actions serve to impress their patients/customers as part of their business strategies and discuss how healthcare seekers view the role of pharmacy daktars. In Chapter Three, I delineate the healthcare circumstances during the COVID-19 pandemic and its impact in 2020, including the role and actions of the health authorities and healthcare providers in Bangladesh. Here I reflect on corruption and capitalisation of profit that were hiked up at different levels and how healthcare providers at different levels reacted to the disruption to their occupations and services. Engaging with the theory of disaster capitalism, I elaborate on how people working in the health sector at both macro and micro levels took advantage of the health crisis to capitalise on their profit over health and life due to the politicised role of the state health governance and corruption. In this chapter, I argue that although charging customers more than usual, pharmacy daktars continued their services despite the great fear of infection and at a time when even the registered doctors stopped serving the public.

In Chapter Four, I examine the outcomes of unauthorised pharmacy daktars' activities producing unintended consequences for community public health in Bangladesh. Pharmacy daktars' trial treatments to impress the patients and sales of prohibited or banned medicines for a quick profit leave additional health risks for care seekers. I analyse how different prescribing patterns, such as verbal or unskilled and incompetent prescription writing, drive 'irrational' dispensing, misuse of antibiotics and other drugs, and public health consequences. I conclude the chapter with a discussion on how the moral economy of health in community pharmacies provides resilience to such unauthorised biomedical practices placing health cost at the centre rather than quality or authenticity.

In Chapter Five, I discuss the interactions and relationships between pharmaceutical companies and biomedical practitioners in Bangladesh. Pharmacy daktars are widely considered to be 'doctors' and used as a channel/agent by pharmaceutical companies in the medicine trade despite their lack of state-authorized accreditation to prescribe or dispense prescription drugs. I describe the tactics and strategies pharmaceutical company agents apply in their interaction with practitioners (formal and unauthorised) to increase sales. A growing number of unregistered chemical and medicine manufacturers also reach pharmacy daktars to market their products, and pharmacy daktars sell substandard and counterfeit products for profit. I examine and theorise 'gift/money' exchange for sale promotion that is counted as pharmaceutical 'marketing cost' impacting medicine price and quality. I analyse how this is entrenched with the idea of bribing but is concealed by a social gift-giving concept. I also analyse how medicine prices are determined and why medicines remain unaffordable for many people. The chapter concludes with a discussion of how legitimate medicine producers also

manipulate drug quality using loopholes in governance and take advantage of the state's neoliberal free-market policies.

In Chapter Six, I analyse the Bangladesh government's interventions and challenges faced by them in developing retail pharmacy management. The existing state pharmacy management development project faces different implementation barriers, including misuse of law and policies in practice and corruption among the officials. I illustrate how the unauthorised pharmacies work on the edge of the state's medical legitimacy and live with constant fear and threats from public officials. I analyse how corruption at different levels becomes embedded in everyday healthcare practices and argue that corruption in the formal sector influences and emboldens unauthorised and quasi-legal practitioners to be 'immoral' and 'unethical' in their practices as they are forced to negotiate their illegal status in order to survive. I conclude with research participants' perceptions about the potential of the effective use of pharmacy daktar in Bangladesh's mainstream healthcare delivery systems. I then summarise the major findings related to my research questions. In the concluding remarks, from academic and policymaking perspectives, I consider how we might conceptualise medical pluralism and recognise the variations of what constitutes authority in biomedical practices in a plural medical context such as in Bangladesh.

CHAPTER ONE: FROM A PHARMACY OPERATOR TO MBBS DOCTOR: WHO IS THE LEGITIMATE BIOMEDICAL PRIMARY PRACTITIONER?

One afternoon in early March 2020, I visited Arun's shop named Mimi Clinic and witnessed a twenty-minute 'circumcision operation' on a curtained-off operation bed. The pharmacy shop is on Middle Birol market road, adjacent to a bustling road and posh residential area of Dhaka city. The shop, including the 'operation theatre', could be called a one-room shack with a tiny partitioned space for a single patient bed where check-ups and minor surgeries are performed. The front of the shop, which is also the counter where customers are served, is decorated with open racks and a glass showcase filled with medicines and healthcare products. The backside of the medicine rack and a blue-white curtain make the inside check-up room that is separate and private. The path to the check-up room is very narrow, and one can hardly walk through without touching someone sitting in the waiting space. As I proceeded to build my rapport with Arun, humbly requesting his nod to observe his biomedical work practice, to which, with a look of curiosity and interest in my research, he agreed.

Delaying his lunch break, Arun prepared to assist his wife, a public hospital nurse who was supposed to perform a prescheduled circumcision operation on a 7-year-old boy at 1.00 pm. Arun was unsure if his wife would be able to arrive on time due to her exhaustion from the previous night shift work. He said, "She must be tired, and just in case she cannot make it, I will do the operation". He invited me to observe the operation so I could get an idea about his shop and work, after which he would give me a formal interview. While speaking with me, he prepared a bunch of cotton, hexisol[13], scissors, and gauze for the bandage on a tray. Finally, he heard from his wife, who confirmed that she was not coming, so his daughter would assist him, who was on her way to the shop. By this time, Rayhan, the boy who will be circumcised, had arrived. His grandfather, another boy and three girls, who are his cousins, came along with him. While waiting for his daughter, Arun daktar introduced me to Rayhan's grandfather and mentioned to him my request to observe the session. Rayhan's grandfather curiously met me and asked questions about my research interests and life in Australia. I answered his questions then asked if I could observe this 'operation'. He nodded affirmatively and continued casually asking about my job, family, and where I lived. I sat on a bench in the waiting space beneath a pile of baby diapers and wipes displayed for sale. Seven people, including me, were in that medicine shop during the operation.

[13] Hexisol is local brand name of Chlorhexidine Gluconate + Isopropyl alcohol used as disinfectant agent during surgery.

In 10 minutes, Arun's 9th-grade school-going daughter arrived to assist in the 'operation theatre'. The boy seemed nervous. The boy panicked and loudly said, "don't hurt me!". Arun assured the boy and said, "This will be just like an ant bite. You will be okay." Arun's daughter held the boy so that he would not move during surgery. Both 'doctor and nurse' were gentle and friendly to the nervous little boy. After the surgery was completed, the boy's uncle came inside and took him home. The grandfather paid Arun Tk.2,000 (approx. A$30/32). Arun, later in his interview, mentioned, 'if this boy had been taken to the nearest hospital or big clinic/hospital, they would have been paid a minimum of 5 to 7 thousand (approx. A$80- 112).'.

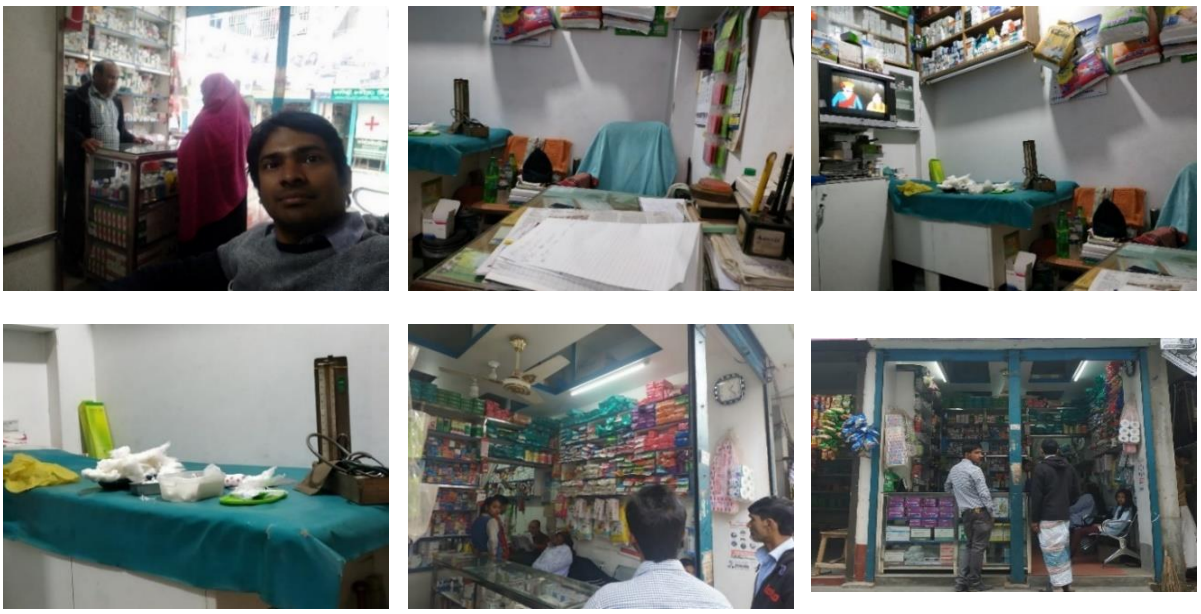


Figure 2: Event descriptions in Mimi 'clinic' pharmacy shop (Clockwise) 1. Pharmacy Daktar Arun serving a customer in his medicine shop front desk 2. His chamber table inside the curtain 3. 'Operation theatre': service with entertainment! 4. All set for operation to be conducted for Rayhan's circumcision 5. Rayhan's guardians waiting and his cousins are here to watch 6. Two other spectators are curious about the ongoing operation. Photos: Nur Newaz Khan

Arun Barman, the 53 years old pharmacy owner, has been in the biomedicine business for 34 years and has been practising general medicine in this shop for the last 27 years. After completing his 12th class in 1988, he started working in a village pharmacy in Barisal, a southern district of Bangladesh. A year later, he pursued training in health-related areas and came to study in Dhaka city. He completed his Licentiate of Medical Assistant and Family Planning (LMAF) certificate course at a private organisation in Mirpur, Dhaka. Then worked under a few MBBS doctors as an assistant/compounder for six years in different locations. He worked in South Birol for three years before finally moving to Middle-Birol Bazar road and opening his own shop-chamber to practice. Arun completed a three-month pharmacist course from Bangladesh Pharmacist Council in 1993; a grade C certificate is a minimum requirement to open and run a medicine shop as per government rules. Additionally, he completed a few

more short courses on different primary health subjects. On his business card and prescription writing pad, he is mentioned as specially trained for gynaecology, surgery, and family planning. Arun charges Tk.100 (approx. A$1.5) for consultation and writing a prescription. Sometimes he gives free consultations to poorer patients. In other words, if he has to write a prescription, he charges a fee; otherwise, he provides a verbal prescription and suggestions for free, expecting that patients will buy medicine from his shop. Usually, his patients buy their prescribed medicines from this shop.

Although my original focus was to observe retail pharmacy owners' as unauthorised practitioners, it became clear during my early fieldwork observations that public health officials also practice as 'doctor' without authorisation. This observation suggested that I needed to consider unauthorised biomedical practices in both public health facilities and retail pharmacies. The case I present next is a scenario of a union-level government health sub-centre where I observed medical and non-medical staff in government service who actively prescribe and practice without authorisation in and outside the public health facilities. Then, I focus on retail pharmacies to show that people with different unrecognised and unauthorised qualifications practice biomedicine to argue that the biomedical authority of practitioners produces alternative cultural pathways of practice in the process of readaptation in local culture. I engage Max Weber's concepts of power and authority to argue that the idea of authority in localised biomedicine does not necessarily follow the state-directed rational-legal power and authority or the formal biomedical conventions.

In this chapter, I also review existing medical and social research on biomedicine in Bangladesh to support my argument that the evolving nature of unauthorised biomedical practices is generalised, and the range of such qualifications has been inaccurately pigeonholed as only 'rural'. As I delineated in the Introduction, the persistent popular understanding of retail pharmacy owners/ as 'village doctors' or 'Rural Medical Practitioners (RMPs)' wrongly situates them in rural areas, whereas many are located in urban regions. This is also contrary to the ground reality of who these practitioners are and where they actually practice. In practical terms, I argue that such categories of biomedical qualifications must be understood in terms of reforms in state health policies and interventions in different political regimes (see the introduction). Therefore, I problematise this popular understanding and suggest a rethinking of conventional terms to help reconceptualise this on the ground reality of practices in light of such qualifications' widespread presence in urban locations. To understand all these issues, I first analyse the process and qualifications required to be a doctor in Bangladesh and how people perceive the meaning of the term 'doctor' in everyday life.

Biomedical and the state mandates versus community perception of who is a 'doctor'

A doctor or a physician is a universally recognised term for a biomedical practitioner. The pertinence of a practitioner depends on particular knowledge and qualifications in western medicine that provide a person the legitimacy to be authorised to practice. According to the World Health Organization (WHO) international standard classification of health workers, a general biomedical practitioner is called a 'medical doctor', 'physician', general practitioner, or primary healthcare physician. This guideline[14] also notes,

> "Occupations included in this category require completion of a university-level degree in basic medical education plus postgraduate clinical training or equivalent. Medical interns who have completed their university education in basic medical education and are undertaking postgraduate clinical training are included here." (WHO, 2008)

These required qualifications of a biomedical practitioner are taken for granted as universal worldwide, and the state-designated health authority provides the authorisation of their practice. However, medical anthropologists argue that biomedicine is not practised similarly on practical and cultural grounds. Kleinman mentioned that even the practitioners of biomedicine within Europe do not follow the same practice doctrines in all places (Kleinman, 1997). Evidence is emerging in Bangladesh as well that shows there are groups of people who use their uncredited and unapproved credentials and work experience within biomedicine to utilise and claim the locally derived cultural authority to be a 'doctor' in their community (Chowdhury and Alam, 2008; Adams, Islam and Ahmed, 2015; Ahmed *et al.*, 2017). Nevertheless, they are not formally state-recognised or authorised to prescribe pharmaceutical medicines or treat patients.

According to Bangladesh's state healthcare delivery provisions, to be a healthcare practitioner requires a five years degree (4-year bachelor's and one-year internship) in any of the four approved medical (Biomedicine, Homeopathy, Ayurveda, and Unani) education systems (MOHFW, 2012). However, to practice, the graduates from these medical fields must register with a specific designated regulatory board that validates the qualifications and provides a registration number to practice. Regulatory boards function under the jurisdiction of the Ministry of Health (MOHFW, 2019).

[14] According to WHO the guideline was adapted from International Labour Organization, International Standard Classification of Occupations: ISCO-08. The update of this classification can be accessed at www.ilo.org/public/english/bureau/stat/isco/isco08/index.htm

'Doctor' is a familiar designation to address a biomedical practitioner who may or may not be a practising physician. Homeopathy practitioners are called homeopathy doctors or just homeopaths. According to the Bangladesh Unani and Ayurvedic Practitioners Ordinance, 1983, Tabib or Hakim refers to an Unani practitioner and Kabiraj or Vaid to Ayurveda practitioners [15]. Despite the established terms for legitimate medical practitioners, my encounters with healthcare seekers show that people use *daktar* as a concept explicitly taken for granted to address anybody who offers prescription and treatment regardless of the system of medicine the person is practising. Pharmacy owners and operators are also included in this term. This was also made clear to me by what my research participants said:

> *Researcher: what do we understand when we say the word 'doctor'?*
> *Participant 1: what else, daktar means pharmacy daktar (doctor)*
> *Researcher: then, in the past, we heard we had Kabiraj, Boidhya (Aurveda or Unani), or hujur (religious/faith healer) but now doctor. So what is the difference?*
> *Participant 1: daktar asks why you came? What is your problem? Then say, I tell about my headache or I have a fever or cold or maybe body pain. Then the doctor suggests what to do.*
> *Researcher: but that could be done by a hujur or kabiraj! Why go to daktar?*
> *Participant 2: No, two are different. One (Hujur) gives spelled water and the others give (doctors) vitamin tablets which, if I eat, my headache or fever may be gone.*
> *Researcher: so are you saying that doctors have something to do with medicine that is not done by hujur or Kabiraj?*
> *Participant (all six together): yes, that is the thing,*
> *Participant 2: hujur gives Pani or tel pora (spelled water/oil) and Kabiraj gives, say, brunch or root of a tree and those things, but a daktar will provide you with tablets, capsules, or injections. These are modern daktari (of biomedicine) medicines.*
>
> FGD with women, healthcare seeker of Pharmacy Daktar, Mirpur, Dhaka

My research participants' responses in this FGD revealed that while biomedicine is the dominant modality of care in their lives (Hahn and Kleinman, 1995; Gaines and Davis-Floyd, 2004), the consumers/healthcare seekers consider anyone a biomedical '*daktar* if that practitioner writes a prescription and provides '*tablets*, *capsules* or *injections'* as medicine. The use of stethoscopes and blood pressure measuring tools also identifies biomedical practitioners and separates them from other medical practitioners such as traditional or faith healers. Bangladesh Medical and Dental Council (BMDC) is the central authority that provides registration for biomedical graduates to enable them to prescribe and practice after the graduate passes the registration qualification exam operated by BMDC (MOHFW, 2019). Only those completing five years of medical education and registered with BMDC can prescribe as

[15] Doctor as meaning for biomedicine is taken for granted and I did not find any laws even clarifying that but terms for other medical practitioners were announced under an ordinance. This clearly reflects the power and authority of biomedicine that has direct access to a culture backed by the state. For details of related laws regarding meaning of terms for alternative practitioners in Bangladesh one can visit the website: http://bdlaws.minlaw.gov.bd/act-645/section-20082.html

formal healthcare practitioners in public and private facilities. According to state-legal provisions, the right to prescribe is the key determinant distinguishing formal and informal medical settings. However, in current state health policy, this right to prescribe jurisdiction is confusing regarding who is a recognised prescriber or provider. I elaborate on this point in relation to my ethnographic observations.

'I thought there were three doctors!' Unauthorised prescribing in the government facility

During my time with the 'Army daktar' (see the Introduction for details) in early December 2019, I also visited a government health sub-centre at the union level. I met Renu[16], who helped introduce me to the in charge of that centre. Earlier I had an informal discussion with Renu, my key informant, to arrange a group discussion with women to discuss healthcare choices for women, children and young girls. I also shared my interest in meeting local pharmacy daktars and MBBS doctors. When I asked if any MBBS doctors practice here, Renu remarked, "As far as we know, there are three doctors in our health centre, but one is not here now. However, the problem is that the daktar in the dispensary does not like the senior one, but I can ask the senior one, Riaz Bhai (brother)". When I asked why they do not like each other, she said, "He wants all patients to come to him, not Riaz Bhai. You will see when you go; quite a drama there!". Accompanied by Renu, when I arrived, I saw the Sub-Assistant Community Medical Officer (SACMO), who was writing a prescription for a patient. An older man was describing his symptoms of headache, joint pain, and gastric burning in the stomach to him. Riaz looked at Renu and smiled while listening to the older man's problem. He prescribed a few tests on a separate prescription pad (with his name and affiliations). He also wrote two coded numbers on a separate small piece of white paper sealed with the designation, and told the older man to show this and collect free meds from the centre dispensary (located on the opposite side of this his room).

I was waiting with four Medical Promotion Officers (MPOs) and three women (patients) in the waiting room between the doctor's chamber on the right and the dispensary on the left. The doctor's room has a small check-up bed, partitioned with a white curtain for privacy. The sub-health centre remains open from 9 am to 4 pm, but patients are served for four hours, from 10 am to 2 pm. While I tried to make a conversation with the MPOs, I observed the older man walking to the dispensary to collect free medicines prescribed by Dr Riaz. The old man approached the dispensary operator, who disappointedly yelled at the older man, 'now who

[16] Renu is a well-known in the locality as she is actively involved with NGO microfinance groups and women's health projects. As women group leader she is well connected with local healthcare facilities and related government and NGO health programs.

shall give you the meds? You did not come to me when I could diagnose your problem and prescribe; you all go to the other room'. Then with disappointment, he dispensed the meds, and the older man left the facility with frustration regarding his behaviour. 'What shall we do? If we go to the senior Daktar (doctor), the junior one gets angry',-the older man uttered as if talking to all of us. My observation in the dispensary and waiting room in that sub-health centre and my interview with Riaz provided me with some interesting evidence.

This sub-health centre has three active staff- a SACMO, a pharmacist/dispenser, and an office assistant. Mr Riaz had completed a three-year Diploma in Medical Faculty (DMF) degree and was posted as SACMO under the Medical officer. However, Riaz, the SACMO, had been in charge of the sub-health centre for the last two years because the MBBS doctor was on study leave. Riaz uses the main chamber room and attends to the patients. There should be a ticket counter where patients can register themselves, but I did not see any. Patients are registered as they are served in a handwritten register logbook filled out by the service provider. Riaz comes to the facility around 10 am and leaves around 2 pm five days weekly. A white paper note is used as a token with the medicine code number, and patients are provided with those medicines when shown at the dispensary. However, Riaz also uses his own prescription pad for patients to write medicines that need to be purchased from outside pharmacies.

Durjoy, the pharmacist, is posted as the dispensary operator who visits patients at his office desk and dispenses medicine to the patients. He also uses a white paper that has a seal of his name and designation as a prescription for his patients for medicines that need to be bought from outside (see Chapter Three for details of different patterns of written prescriptions). Durjoy was reluctant to give information about his education or professional activities, but I came to know from Riaz and two MPOs that he not only visited patients at the office desk but also in four pharmacy shops in different village markets. During my interactions, I observed him offering a patient low-cost dental surgery at his pharmacy chamber in the local market to remove a tooth that might be costly to do in private hospitals. Later, when I shared with Renu that none of the current providers in the centre is an MBBS doctor, she was surprised and said,

> "What are you saying? I thought there were three doctors! All these years, we knew that they were doctors! You know what, Durjoy, the dispensary operator is much busier than Riaz. He also practices in Samota pharmacy in our local market[17]".

This scenario reveals how people consider and must accept government health staff as practising doctors inside a facility, being unaware of their legal status or legal qualification to practice. It also indicates that the authority and right to write a prescription are central to

[17] The local village market is just 2 minutes' walk from the sub-health centre

acquiring the ‘doctor’ designation and what can count as authentic biomedical practice. It is, therefore, necessary to explore the state policy provisions for prescribers and analyse the authorisation process to understand who exactly holds the authority in practice and to prescribe and how exactly is this authority derived and sustained?

Who holds the right to prescribe? Complexities within and outside the policy

Generally, a written prescription is an identifier of a biomedical practitioner and his/her authority to prescribe and practice. However, prescribers’ qualifications, skills, and experience vary across cultures and countries due to different laws and authorisation processes that give biomedical practitioners the power to prescribe medications. For example, The UK National Health Service describes a prescriber as a healthcare professional who can write a prescription, and could be a non-physicians person. Examples include nurses, diagnostic and therapeutic radiographers, pharmacists, physiotherapists, podiatrists and midwives who may be “appropriate practitioners” for a limited number of predefined pharmacopoeia[18] (Graham-Clarke *et al.*, 2019). Similar definitions are also used by the WHO, which stipulates that a prescriber need not be a doctor but can be a medical assistant, nurse or midwife (WHO, 1994a). However, in many developing countries, a limited number of practitioners, usually physicians, hold the right to prescribe and other providers, such as midwives and nurses and midwives are not allowed to prescribe medicine (Barrett *et al.*, 2009; Kroezen *et al.*, 2011; Anderson *et al.*, 2014). Bangladesh is included in such a list. However, these practitioners do provide healthcare services, as do many unauthorised workers in the non-formal sector. An example of the complexity of this context is that a drug seller might be a provider but is not authorised to be a prescriber. According to the state health policy, in Bangladesh, only Bachelor of Medicine and Bachelor of Surgery (MBBS) and Bachelor of Dental Surgery (BDS) graduates who are registered with BMDC hold the right to prescribe and write the title ‘Dr/doctor’ with their name on the prescription paper. The DMF degree holders are positioned as SACMO to assist the medical officers. Like Riaz, though, they prescribe medicines, including antibiotics, as they need to run the facility, but they cannot write the title ‘Doctor’ in the prescription.

One crucial point is the unclear demarcation of biomedical authority in defining prescriber and provider in the public health structure in Bangladesh, which then creates confusion in recognising a legal practitioner. Usually, consumers purchasing over-the-counter (OTC) biomedical drugs do not require a prescription and the right to prescribe antibiotics and other physician-directed drugs refers to a doctor’s/prescriber’s/practitioner’s authority. However, this

[18] For examples visit http://www.nhs.uk/chq/Pages/1629.aspx?CategoryID=68&

gets confusing when the state authorises people without a recognised medical qualification to consult patients and dispense antibiotics in public primary healthcare facilities. For example, at the ward level, the Community Clinics (CCs) are run by the Community Healthcare Provider (CHCP), who is authorised to dispense no more than 25 medical items to patients, including four antibiotics (MOHFW, 2016). However, the CHCP as a provider has only higher secondary education (12th grade) and only three months of training in managing common primary health conditions (e.g. antenatal care, postnatal care, family planning, immunisation etc.). In reality, the DMF, pharmacist, and CHCP prescribe beyond such authorised limits in practice in public health centres and retail pharmacies known as doctors.

'Everyone but no one is a doctor': unrestrained biomedical authority

Riaz, the SACMO, was very unhappy about a recent verdict by the high court regarding the recognition of DMFs as a doctor. As Riaz described, this was the outcome of the writ petition filed by the Bangladesh Diploma Medical Association (BDMA) to the high court appealing to recognise DMFs as doctors. The high court's verdict was released in late 2020, where it was mentioned that DMFs are not allowed to use 'Dr' as their title in written prescriptions or anywhere[19]. This order also confirmed that without MBBS doctors, no one holds the right to use the title 'Dr' while prescribing. Riaz was distraught and found this court decision problematic and unfair as authorisation in different government health service bodies is confusing, such as the CCs. He was frustrated as he said:

> "I cannot write the title 'Doctor' in prescription, but I have to run a centre when the medical officer (MBBS) is not here. On the other hand, CHCP in the community clinic can prescribe and dispense antibiotics! You talk about the pharmacy owners as a doctor; we even cannot say if the authorisation is correct within government health facilities. Sometimes people ask me for a specific doctor or who will give them medicine! The situation is like the person who dispenses the medicine is a doctor, or who knows; maybe the peon is also a doctor! I have a diploma; I am also a doctor! It's like everyone is a doctor when no one actually has the legal right to write a prescription or use the title 'doctor'."

Such circumstances confuse healthcare seekers (and researchers) in determining who the authorised prescribers and providers are because OTC drugs can be recommended or prescribed by anyone, a common practice among pharmacy shop operators/workers. Moreover, in urban and rural areas, healthcare seekers' satisfaction with government health facilities is minimal, although a significant proportion of the population depends on public health services. Even if people consult a doctor in public health centres, they must go to private health services most of the time for tests, diagnoses and medical purposes, as public sector testing

[19] The verdict was pending when I interviewed Riaz in early 2020. The court order released in late 2020 and I had a follow up phone conversation regarding our previous discussion to get Riaz's reaction on this verdict.

facilities and medicine supply are inadequate (Aldana, Piechulek and Al-Sabir, 2001; Ali *et al.*, 2013; Mohiuddin, 2020). Under such circumstances, then where do people first go when they become ill?

The first contact 'doctor' at the pharmacy and consumers' perception of qualification

All the pharmacy customers I interviewed or spoke with mentioned that they first go to the nearest pharmacy to consult for any primary and often urgent healthcare needs before they consult a formally qualified practitioner (MBBS). Pharmacy *Daktars* are the most available and nearest practitioners and prescribers or can suggest to clients other providers and sources of medicines for everyday health problems. Many previous studies also report this (Chowdhury and Alam, 2008; Mahmood *et al.*, 2010; Adams, Islam and Ahmed, 2015; Saha and Hossain, 2017; Billah *et al.*, 2018). Many healthcare seekers are aware that pharmacy operators/owners are not formally qualified or authorised doctors, but people seek healthcare from them (detailed in Chapter Three). Since they are consulted for minor and primary health problems, people define them as 'little' practitioners compared to formal MBBS or specialised doctors. Here is an example of how healthcare seekers demarcate the difference between formally qualified doctors and daktar in retail pharmacies:

> *Researcher: Where do you go when you or someone in your family gets sick?*
> *Sima : first, we go to a pharmacy. Or we wait for two days to observe the situation. Like if we have a fever today, we can't go to the doctor. Because by taking medicine, our fever may increase or decrease. So we wait for two days. Then we go to the chamber.*
> *Banu : we go to the hospital for more significant issues but usually go to a pharmacy.*
> *Researcher: which pharmacy?*
> *Sima : anyone nearby; we have some in the neighbourhood.*
> *Tahera : we go to Daktarkhana (doctor's house) here in no. 11 lane.*
> *Researcher: what is that, Daktarkhana? Do you know if there is an MBBS doctor there?*
> *Sima: actually, we do not know, but he has had popularity and reputation for many years here.*
> *Banu: I know he is not MBBS but maybe has some minor qualifications. He is swamped and exceptionally well known for treatment for children's and women's health.*
> *Researcher: what do you tell them? How do you ask for treatment from pharmacy people?*
> *Tahera 1: if I tell them my problem, they give me medicine*
> *Banu: sometimes they recommend us for tests or examinations too*
> *Salma: say, I tell if I have fever or headache and ask for suggestions, then they will check for fever and give medicine accordingly. If that does not work, then they ask for tests.*
> *Researcher: well, if you do not have any prescription but describe your problems, will they give you medication?*

Salma & Sima (together): yes, they will assume and give medicine. Some also write a prescription but charge fees for that; typically do not take any fees if they prescribe verbally.
Researcher: so are they actually a doctor or not like the Daktarkhana or pharmacy?
Banu: they are pharmacy people where you can find many types of daktars, but they are not big ones (more qualified), there are boro daktar in hospitals, but in our locality, I did not see any MBBS doctor within 5 km since from my childhood here. All are these pharmacy daktars.

FGD, women healthcare seekers of Pharmacy Daktar, Dhaka

According to the healthcare seekers in my research, pharmacy *daktar* are *Choto Daktar* (small/little doctors), *Kom pass kora Daktar* (less educated or qualified doctor), *Hature Daktar* (quack). In the case of rural areas, people also call them *Gramer Bazar er Daktar* (doctor of village market). The formal and authorised doctors are perceived as MBBS, *Boro Daktar* (big/prominent doctors), *Beshi Pash Kora Daktar* (more educated and qualified doctors), and hospital or clinic doctors. The following section presents different types of unauthorised biomedical practitioners I met at retail pharmacies in rural and urban locations.

Pharmacy daktars' qualifications: transcending biomedical authority

In this thesis, I define the types of practitioners based on the patterns of qualification, experience, or process the practitioners took to become known or established biomedical practitioners. The types of unauthorised biomedical practitioners I found active in retail pharmacies include government health workers, assistants of MBBS doctors, short training holders, pharmacy workers or assistants of a pharmacist, practitioners inheriting the family business, and pharmaceutical representatives, were also reported in previous studies (Shah, 2020). However, there are overlaps in the different types of experience and training they receive. Although many MBBS doctors also practice in retail pharmacies as a shared space, in my research, my focus was on retail pharmacy shops where typically, one person is the 'doctor' (without authorisation) and is also a seller. There are many pharmacies where the owner acts as manager and employ pharmacist and sales assistants, usually in larger or wholesale shops. Recently, pharmacy chain shops have been developing in urban areas with managers, qualified pharmacists, and assistants. Such wholesale or franchisee chain shops are not included in my data collection (see method section in the Introduction). The variety of qualifications and practices outside the state legitimacy implies that biomedical authority could be extended beyond the conventional limits, thus transcending such limits at local levels in everyday practices.

Compounder/assistant for MBBS doctor or pharmacist

It is well known that nearly all MBBS practitioners in Bangladesh employ an assistant to help run their chamber (Shah, 2020). Generally, an assistant to MBBS doctors is known as a compounder. Compounders' duties are maintaining patient serials and appointments, health screening like blood pressure, weight, and blood sugar level, fever check-ups, and collecting fees/ bookkeeping for the MBBS doctor. Most pharmacy daktar I researched in rural and urban sites have experience (1 to 6 years) working with MBBS doctors before completing a short course (e.g. RMP or LMAF) and starting their own pharmacy practice. Generally, the owner is both the operator and the practitioner. Some of them had working experience in wholesale or retail pharmacies. In latter cases, they usually do not hold any certification and do not offer written prescriptions but verbally suggest medicines to or for their patients (see Chapter Three). A few of the practitioners in my research had inherited the practice; they took over their family pharmacy business and later obtained their formally unrecognised training/certification from private organisations. As I observed in my fieldwork, many officially unrecognised private health education organisations offer short-term medical assistant and diploma (MAT/DMF) courses. Two such popular courses are RMP and LMAF/P. However, these are considered sub-standard qualifications and remain outside of state legitimacy (Ahmed, Hossain and Chowdhury, 2009; Cross and MacGregor, 2009; Mahmood *et al.*, 2010; Shah, 2020).

Medical assistants and non-medical staff in government or private health facilities

As I observed the SACMOs, pharmacists, paramedics, nurses, and administrative staff in government or private hospitals also practice after hours. Some also run their own pharmacy and practice as a doctor in both urban and rural areas. The dispensary operator in the sub-health centre I visited is one such example I presented above. I also observed that medical assistants in government and private hospitals work in retail pharmacies as part-time doctors in suburban low-income settings. Some also act as trainers, giving lectures in local private (unapproved) organisations which provide RMP, LMAF or minor medical courses (e.g. short courses on child health or family planning).

C-grade pharmacists as practitioners

Per the rules of the Bangladesh drug administration and pharmaceutical council, three categories of pharmacy certifications allow a person to run a retail or wholesale pharmacy. Bangladesh Pharmacy Council is the state-authorised body to provide, register and control pharmacist qualifications[20]. Grade A pharmacists require a four-year bachelor of pharmacy from a recognised university or institution. Similarly, grade B completes a diploma in pharmacy

[20] Details about how they operate can be accessed at http://www.pcb.gov.bd/

(generally three years), and grade C completes a six-month short course on medicine and dispensing rules (Habib *et al.*, 2020). A grade C pharmacist certificate is the minimum requirement to run a retail pharmacy[21] and is the easiest to avail. Many medicine sellers manage a C-grade certificate from a recognised provider approved by the Bangladesh Pharmacy Council to run their pharmacy. Although this certificate only authorises them to act as dispensers, they practice, prescribe and provide primary and first aid health services.

Work experience in the pharmaceutical company

Many of the pharmacy Daktar utilise experience in medicine and health from their previous job in the pharmaceutical industry, mainly as sales representatives. As I learned, either after quitting their job or retiring, they take a course on pharmacy management and open their pharmacy. Some of them still remain active in jobs and manage a pharmacy shop by a family member or partner as planned to take over the business in future.

No qualification at all but medicine selling as a business

Although less in number, pharmacy sellers with no previous experience also run medicine shops even without a drug license or pharmacist certification. Nevertheless, they also dispense antibiotics and begin suggesting medications to patients once they gain experience running their business. I encountered a few such practitioners in low-income rural and urban residential areas. However, this form of practice is declining due to the government's increased monitoring of drug licenses since 2016. These practitioners are in preparation to get a pharmacist certificate.

Although '*Daktari o Oshudh Bebshya*' (business of medical practice and medicine) in retail pharmacy is predominantly a male domain, I did observe a few women working and supporting their husbands in a family medicine shop in urban sites. I also met a woman paramedic of a private hospital who runs her own chamber and pharmacy in the evenings in the Dhaka Mirpur area. The following diagram provides an overview of different unauthorised practices at different levels and those located at retail pharmacies. Apart from the types of practices and practitioners I have discussed so far, other forms of unauthorised biomedical practices require further research and analysis. For example, it is already known that many medical interns and graduates who practice in private clinics, diagnostic centres, and retail pharmacies are running their chambers without registration. They are qualified but not authorised as they are either unregistered or have yet to get their registration approval from BMDC. There are also

[21] As per the state laws and Bangladesh Pharmacy Council, pharmacies in tertiary hospital, medical colleges and district hospitals require a Grade A pharmacist. Sub-district and bellow level public health centres are equipped with 3 year diploma pharmacist. In the private sector, government is currently running a project to develop the pharmacy sector by categorising pharmacies and related qualifications. See Chapter Six for more.

fraudulent cases where people make fake MBBS certificates and practice in private health facilities and pharmacies (The Daily Star, 2018; Mamun Abdullah, 2020). Pharmacy owners view their activities as daktar differently from such 'total fake' practitioners (also discussed in Chapter Six). My findings suggest that as a cultural system, biomedicine in Bangladesh thus is not a singular system (Hahn and Kleinman, 1995). Instead, it is transformed substantially in relation to the required knowledge, reinventing authority and legitimacy to the practice. I find Max Weber's theorisation on rationalisation, bureaucracy, and authority relevant to explain the ground role and status of primary healthcare practitioners in contrast to the state governance rules and policy perceptions.

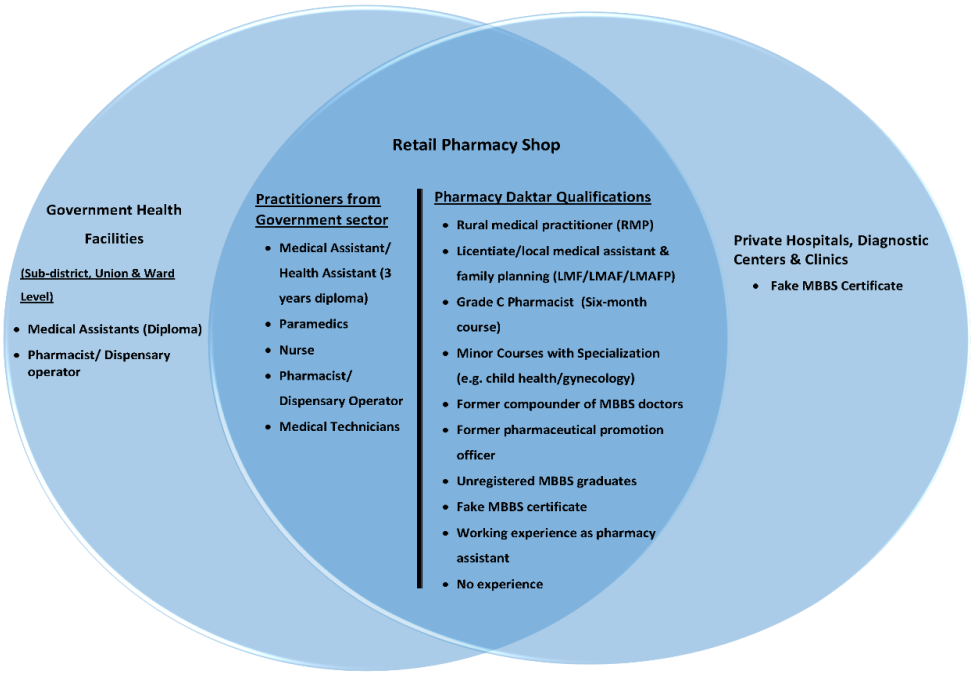


Figure 3: Unauthorised biomedical practices at different levels

For Weber, the acceptability of legal-rational authority derives from the legality of the state government's legal-rational norms, laws and policies (Spencer, 1970). I suggest the authority that pharmacy daktars acquire and hold in Bangladesh can be seen as located outside of the rational and legal authority and is a deviation from the Weberian idea of legal-rational authority, such as the terms of biomedical mandates requiring specific qualifications to practice (Weber, 1947; Kalberg, 1980). For Weber, the core distinction in social organisation is between constrictive and creative aspects, such as bureaucracy versus charisma of leadership (Weber, 1968). Similar analytical methods have been adopted in many fields, such as economic sociology and contextualised beyond Weber's work. Weber's study of the economic entrepreneur and capitalism's aims revealing actual changes that occur is not based on theoretical economic forces of product factors only but also 'on the charismatic reformulation

of the meaning of economic actions' of the actors in particular context (Scott, 1970, pp. 459–460) such as transactions in primary health context in retail pharmacies in my research.

Hollin and Giraud used Weber's third concept of authority: charisma in medical settings, and argued that a leader with charismatic qualities and personal attributes produces their reputation and position in the field they are working (Hollin and Giraud, 2017). Pharmacy daktars in Bangladesh, as health practitioners, perform based on their acquired work experience and skills to gain patients' trust and patients perceive their skills as charismatic qualities as good practitioners (see examples and discussion in Chapter Two). For pharmacy daktars, the charismatic authority works in a pattern of activities and strategies as impression management and dramaturgical approaches (Goffman 1967 cited in Fields, Copp and Kleinman, 2006; Goffman, 2012). This is evident in how they present their work to the public and the symbolic interactions with their customers/healthcare seekers to gain pertinence in the local cultural economy of health and medicine (more in Chapter Two). I mentioned earlier (in the Introduction) that analysis of unauthorised biomedical practice at the retail shop level in existing studies is seen as complementary to biomedicine but is considered illegal. In the existing literature, these practitioners are commonly called Village Doctors (VDs), unethical practitioners, or rural medical practitioners. I find such conclusions problematic as these terms do not reflect the widespread existence of such practitioners, as evidenced by the prevailing retail pharmacies operating across the country, including in urban cities. In the following section, I present examples to discuss the problem with the popular understanding of the concept of the 'village doctor' in health-related literature.

Are they rural only? Reconceptualising Village Doctors/Rural Medical Practitioners

Naimul, a pharmacy daktar practises in his pharmacy shop chamber in a suburban area in Mirpur, Dhaka, for the last 20 years. He went to Korea on a work visa in 1998 but did not do well there, so he returned home. Seeing one of his friends in Sanarpara (the southern end of Dhaka city), he also thought of doing a medicine business. He had completed a six-month RMP certificate from a private organisation under Bangladesh Rural Medical Association (BRMA), and another short course on child health from a private hospital named the institute of child health. In 2000, he settled in the Birampur area and opened his shop.

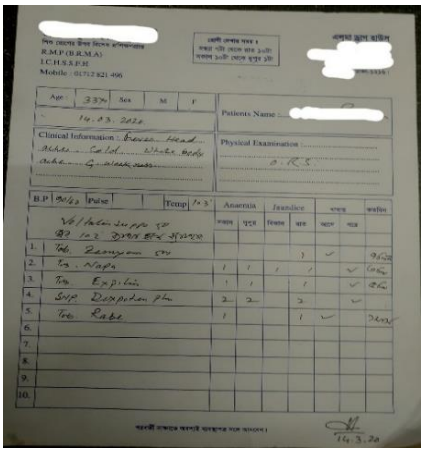


Figure 4: 1. The researcher with a Rural Medical Practitioner qualification holder in Urban Dhaka. 2. Copy of prescription provided. Although I was told not to take any picture of patient consultation but Pharmacy Daktar Naimul was happy to take a photo with the researcher and requested to showcase his story to the Australian research audience. Photo: Nur Newaz Khan

When I arrived at his pharmacy on the prescheduled day, I observed him in his chamber consulting patients. I told Naimul that I would wait outside this chamber room, but he nodded his head, meaning I could stay and observe the consultation. He served eight patients during my five hours of observation at his shop. I observed three of the patient consultations with prior consent from the patients. He provides consultation, writes prescriptions for his patient for Tk.100 fees and sells medicines. His son helps him run the pharmacy, serving customers while he consults the patients. Like Naimul, I found RMP certificate holders practising in different urban locations in Dhaka, the country's capital. The question that struck me is how and in which context can a rural practitioner certificate holder practice in urban areas? In what follows, I discuss how the concept of village doctor as a term has been presented in existing health literature, but given my observations exemplified by Naimul and others, this assumption regarding who is a village doctor requires rethinking for researchers and policymakers.

Published research and studies report the qualification of RMP, LMAF, and VD as rural only (Ahmed, Hossain and Chowdhury, 2009; Mahmood *et al.*, 2010; Rahman *et al.*, 2015; Ahmed *et al.*, 2017; Billah *et al.*, 2018; Joarder *et al.*, 2018; Shah, 2020). Interestingly, a 2015 study reported that such qualifications are also active in urban slums in Dhaka city. Among others, they identified 550 drug sellers (shop owners/managers/assistants/pharmacists) and 351 village doctors (32.9% and 21.2%)[22] in the informal sector. They also reported 17 village doctors in the formal private healthcare settings and that 21.8% (n=563) among the formal private healthcare providers and 34.1% of the informal providers had either Licentiate of Medical Faculty or Licentiate of Medical assistant and family planning (LMF/LMAF) or RMP

[22] In their study as mentioned the total number of private healthcare providers was 1655 and the total number of qualifications identified is 1813.

certification in study areas in Dhaka (Adams, Islam and Ahmed, 2015). Another critical point is that all previous research studies reported the term LMAF as a local medical assistant and family planning (Abu Bakr, 2013; Adams, Islam and Ahmed, 2015; Billah *et al.*, 2018), which is partially correct but also misleading. The present functionality of LMAF as an unauthorised biomedical qualification has a historical background that has evolved and transformed in the local cultural context that is ignored in existing research. The RMP and LMF/LMAF became unauthorised and informal (discussed in the Introduction) as an impact of the state intervention during the late 1970s and early 1980s and have been cancelled lately. In my ethnographic field, many of the locations they practice are low-income settings, but none is identified a slum/poor urban region[23]. I found pharmacy owners with RMP or LMAF who also serve in areas regardless of income range or habitation status of people, including neighbourhoods of high-income urban regions. Their reification as village doctors in literature belies the ground realities that I have observed over the years, including during my fieldwork in 2019/20. The spatialization of these practitioners as "rural" obscures their ubiquity in urban areas. Evidently, VDs, RMP and LMAF are not exclusively rural, and we must understand the contextual nature of their practice and qualifications regardless of their location. Nevertheless, their presence as biomedical primary healthcare practitioners and providers across the country clearly shows that biomedicine and its authority are "taught, practised, organised and consumed in local contexts" beyond the state legal framework (Good, 1995, p461).

Conclusion

In this chapter, I have discussed that unauthorised biomedical practitioners and their practices in retail pharmacy shops reveal the unstructured healthcare provisions in Bangladesh. As demonstrated by my ethnographic case studies so far, people in Bangladesh rely on pharmacy operators as their first contact for primary health needs in everyday life. Pharmacy owners also provide written and verbal prescriptions and even minor surgeries. I have indicated that the state definition and recognition of a legitimate biomedical practitioner are not reflected in healthcare seekers' perception of and everyday interaction with a "doctor". State policy implementation of authorisation and recognition of a biomedical practitioner is deeply rooted in historical and political changes at the state level that also create confusion over authorisation and licensing processes. However, the shortage of qualified MBBS doctors, unplanned implementation of village doctor initiatives in rural areas, and a weaker surveillance system have allowed many unauthorised biomedical practitioners to persist and practice locally. As I

[23] According to the international encyclopaedia housing and home 2012, a slum, usually located in urban cities, is defined by the substandard infrastructure and habitation quality with below arbitrary and unplanned housing, degraded living conditions and environment, poor or no electrify, lacking or polluted water and, poor sanitation and drainage system. See Olotuah, 2012 for more.

have shown in this chapter, many such practitioners actively practice in urban cities using state-unapproved qualifications, such as certificates for rural medical practitioners. The active existence of various unauthorised qualifications indicates the ambiguity of state rules regarding biomedical authority in local practical contexts. Healthcare seekers access and accept pharmacy daktars for different socio-economic reasons. These biomedical alternatives perhaps also indicate the need for rethinking medical pluralism. However, to understand how unauthorised biomedical practitioners in retail pharmacies work, operate their shops, and survive in their local cultural economy, we need to observe their daily activities, the services they offer to their customers, and the impact of their practice on people's lives. In the next chapter, I present and analyse the role, activities and contribution of pharmacy daktar and the local perception of their impact on community public health.

CHAPTER TWO: EVERYDAY ACTIVITIES OF UNAUTHORISED PHARMACY DAKTARS AND HOW HEALTHCARE SEEKERS VIEW THEIR ROLE

In Chapter One, I discussed that pharmacy operators as daktar (doctors) are the first contact for primary healthcare services and medicine. Although the state health authority does not recognise or authorise them as biomedical prescribers/practitioners, people living in surrounding localities nonetheless access them for their health advice and services. In this chapter, I analyse the everyday activities of pharmacy daktars, their services, interactions with customers and patients, and strategies to attract customers. To understand why people access pharmacy daktars, I analyse healthcare seekers' perceptions of their role. Focusing on their activities, I present all available services they provide in their shops and patients' homes. I also describe pharmacy daktars' actions to impress their patients/customers as part of their business strategies. I illustrate how such strategies can be understood in terms of symbolic interactions that shape their popularity and position as community healthcare providers. To open the discussion in this chapter, I present an example of urgent services that can be availed in a pharmacy shop and then detail all healthcare services offered by the pharmacy daktars. In focusing on the views of customers/patients, I highlight how healthcare seekers view and evaluate pharmacy daktars to be affordable and the most available healthcare provider, unlike the services from formal doctors in public and private facilities.

In the first few days of my fieldwork in Dhaka city, I met Haider in his shop through interaction while getting my mobile phone recharged, which is an added service aside from sales of allopathic medications. At the time, my residence in that locality was very close to his shop. Haider's pharmacy shop is located on the ground floor of the local mosque market complex in s suburban area at Mirpur in Dhaka city. The street is narrow, and there is no footpath. People approach the shop desk counter standing on the street as they interact with the pharmacy vendor. This is a narrow, crowded and noisy road with different vehicles moving and hawkers with their vegetable vans (three-wheeler). I became a regular customer at Haider's shop by interacting for my mobile phone recharges.

After a few occasions of casual chatting, I requested him to participate in my research as he is popularly known as a daktar in the local community. Haider hesitated[24] and told me to talk

[24] After a few interactions, I mentioned my research and interest in his work as a pharmacy daktar (doctor) and requested him to participate in my research. Haider was hesitant at first. When he heard I live in an apartment next door, he became comfortable as the landlord is a very renowned person, a businessperson and a designated member of the local mosque committee.

informally the way we were talking, but he began to fill in the details of his formation as a pharmacist in this shop. He opened his pharmacy shop eight years ago. Before starting this shop, he had three years of working experience in another pharmacy shop. Haider has no biomedical qualification or pharmacist certificate required to run a pharmacy. He enrolled for the C-grade pharmacist course to be commenced soon as he realised that without that certificate, he would not be able to run the shop because of the government's action against unregistered medicine shops. His shop offers medicines, and he is a verbal prescriber. His shop also has a mobile phone recharge and cash transfer service. Haider daktar remains very busy all day; he opens his shop in the morning around 8:00 am and serves his customers until 10 to 11 pm. It became regular that we greet each other in the morning on my way out. I started to visit his shop almost every day for five months, staying an hour or two in the evening before returning to my residence.

One morning around 11 am, an accident occurred in front of Haider's pharmacy shop. I was at a grocery shop just on the other side of the street. A small covered truck hit a rickshaw at approximately 5 feet distance. Both passengers had fallen out of the rickshaw, and one was seriously injured. People gathered instantly around the passengers on the street. One of the injured people was an older man found to be bleeding. A young man came forward and took the older man to Haider's shop. Haider rushed, left what he was doing, took pieces of cotton, applied alcohol rub on the man's injured knee, and then did dressing on it. There was bleeding from cuts in a few places on this man's leg, so Haider also did stitching for those cuts. The older man's son was the other passenger with him. After three stitches were done, Haider prescribed (verbally) a painkiller for three days, an antibiotic for five days, and changing the dressing daily for at least the following three days if possible. He explained all this to the son of the injured patient. The older man was taken home about 30 minutes after the accident, and I returned to my tasked grocery shopping.

I visited Haider's shop that afternoon to learn more about how he had dealt with that emergency surgery and the similar services he provides. I found another man at the shop who informed me that Haider was attending a home call serving a patient. I waited, and after about 30 minutes, Haider returned. When I asked how much fee he charged for this home service, he smiled and answered, "I do not ask for a fixed amount; it is based on their ability. Distance from my shop is a matter, but the families pay Tk.50 to 100 (A$1.5) as my fee, sometimes it Tk.150 or even 200 (A$3) too if the family is well off." What service did you provide there? - I asked. "I checked the health status of a paralysed patient who cannot be moved easily or without emergency. I pushed a prescribed injection and checked if she was given regular medicines or not. I do this regularly and/or they call on urgency", he tells me. Then we discussed the

incident that had occurred that morning. I asked him to detail what he did and how much they paid for his service as an emergency. He told me this,

> "If you have seen, I had stitches done for the old man's cut and dressed his wounds. Since he is an older man, this could worsen; I gave him antibiotics and painkillers. Such minor accidents are common on these streets, and the situation sometimes becomes an emergency. If they had gone to a hospital for such service, they would have been paying thousands, but they paid me only a Tk.300 (A$4.5) bill; it's cheaper! Isn't it? I do not take any consultation fees; I am happy if they buy medicine or treatment from me."

The case scenario above is an example of various services available from a Bangladesh pharmacy shop. A retail pharmacy shop is where someone can get medicine, prescription, treatment, and even an on-demand doctor at home. Such easy accessible and low-cost healthcare, including other services, make pharmacies a first contact care-seeking point for the community where they can get almost all primary healthcare services and a 'one stop' primary healthcare centre.

'All in one': services available at a retail pharmacy shop

The daily activities carried out by them include medicine selling, primary health check-ups, providing informal consultation/suggestions (verbal prescription), formal consultation with a written prescription, checking test reports for customers, referral to diagnostic centres and hospitals, home service, minor surgeries (e.g. Emergency stitching in case of accidental injury, circumcision, bandage and dressing etc.). All these are available services of pharmacy daktars that I describe below.

Selling medicines (with and without a prescription)

Generally, a pharmacy should be dispensing OTC drugs without a prescription and non-OTC items with the presentation of a prescription from a qualified and authorised doctor. However, consistent with findings in pre-existing literature, I observed selling prescription items without a prescription, including antibiotics, is common in retail pharmacies (Ahmed and Islam, 2012; Kotwani *et al.*, 2012; Ahmed *et al.*, 2017; Barker *et al.*, 2017; Saha and Hossain, 2017; Billah *et al.*, 2018; Shah, 2020). In most cases, all the retail pharmacies in my field sold prescription items even if a customer did not present a prescription. Customers can ask for any primary health medicines by brand name or by presenting an inappropriate prescription (drug name written on a piece of paper). Repeat medication for long-term chronic diseases such as heart disease, hypertension, diabetes etc., can also be purchased without a prescription.

Consultation and prescribing practices

Along with purchasing prescription medicines, a customer can consult a pharmacy daktar for general health problems with no fees charged to get treatment suggestions. The form of prescribing is verbal in most cases, but many pharmacy daktars also provide written prescriptions. The written form of prescribing is more visible in downtown or lower-income settings in urban cities and in rural locations outside of major cities. In most cases, the patient is given a choice to get a written prescription or verbal suggestions, depending on their financial ability. The usual reciprocal expectation for a free consultation is that the patient will buy the prescribed medicine from the particular pharmacy.

Primary and pregnancy health service

Pharmacy daktars provide primary health check-ups along with medicine sales. Anyone can ask to check blood pressure or body weight, diabetes test (blood sugar level) and body temperature (fever). Usually, there is no charge for checking body weight, fever and weight. A blood pressure check is also free in most cases, but I observed a few of the pharmacy daktars took Tk.10-20 (A$15-30¢) for that. Testing blood sugar (type 2 diabetes) is Tk.40-50 (A$60-80¢) with glucose meter stripes. Nebulising service for kids and adults in case of breathing problems or asthma is also available in most retail pharmacies that may cost from Tk.50 to 100; in some urban locations, this can be Tk.150 as well. The pharmacy daktars also provide the general pregnancy health check at the shop or home, including providing prescribed preventive vaccines, checking body temperature, blood pressure and the child's heartbeat/ movement checking with a stethoscope.

Report check and referral

Although I did not observe this directly, many of the pharmacy daktar told me that sometimes they check their customers' medical reports brought to them. They usually check non-critical pathology reports such as blood cultures, platelet counts, and x-ray reports (mostly of broken bones). Almost all pharmacy daktars mentioned that they refer those patients to more qualified (MBSS or specialised) doctors for expert investigation when they primarily find any potential complication in the report. As they mentioned, the initial report check by a pharmacy daktar helps the patient decide if they need further treatment or if they can get treatment from the pharmacy, which can save their health cost. Some pharmacy daktar mentioned that pharmacy daktars who are literate in English could read the reports. Some of them do so, particularly those with many years of experience in practice. One pharmacy daktar mentioned,

> "Well, anyone who can read English can easily check blood culture or urine or blood count report because typically reference values are mentioned in the report. You can see the results and reference values and understand how good or bad the patient's conditions are. Yes, if the pathologist in the report mentions no reference values, then only MBBS doctors or more qualified ones can tell as they know and remember the reference values."

However, all the pharmacy daktars noted that the practice of checking reports is currently rare due to fear of government monitoring and raids conducted to prevent fake doctors or unauthorised practices. Similarly, regarding the referral system, all pharmacy daktars echoed that they do not go beyond their knowledge in case of dealing with critical patients. Regardless of location, all pharmacy operators stated that if any pharmacy daktar thinks an illness case is beyond their expertise and capacity, they refer the patient to a more qualified and specialised doctor in hospitals, diagnostic centres or clinics. One significant point is that pharmacy daktars get financial benefits if they refer patients to a particular specialist/diagnostics/pathology lab for consultation or tests as a mutual interest (more in Chapter Six).

Doctor on demand at home for regular and emergency services

Pharmacy daktars also offer home-based services at any time in the local community in case of emergency or long-term medical assistance. Such services generally are sought in cases of needed post-operative nursing or for older patients with chronic conditions who cannot move out of the home. Services include post-operative dressing, cannula and catheter installation or replacement, IV (Intravenous injection) or prescribed saline/injection, test sample collection, general health check-ups or regular nursing services for chronic disease patients like diabetes, heart or cancer patients. Home Services by pharmacy daktars are comparatively more prevalent in rural areas as fewer healthcare facilities, and pharmacies are available close to the community. One of the pharmacy daktars described his experience as a pharmacy owner and provider in a rural village market in this way:

> "In our neighbouring village, just last month, one aged man was released from hospital but still needs some injections administered and dressing for the surgery done on a leg. I do that at his home, as they cannot go to a hospital or call a nurse in this remote village. Also, they cannot keep the patient admitted to a hospital for this reason. I also have a few diabetes patients who need insulin injections. Generally, male patients come to my shop who live nearby, but I need to go about 3 km to reach the patient's home to administer the injection every morning for an aged woman. If you live in central city areas, you may have pharmacy shops near your house or someone in your family to push an injection. People also have a fear of needles. So, I serve them when they need it."

Pharmacy daktar can be called at home at any time. Most of the pharmacy daktars I spoke with had experienced serving patients at home, even at midnight or later, to check on a

patient's health. One example is how Mustahidur saved a life in Dhaka's north urban residential area. He said,

> "I was sleeping, and suddenly my phone ranged; it was around 2 am. I saw a familiar number, a patient of mine, nearby. He is a heart patient, and I do a regular health check for him at home, and sometimes he comes to my shop. His son said he was having serious chest pain and stopped responding. Now when I arrived there, I found he was almost unconscious. I checked his chest, and there was less of his heartbeat I could hear. He was perishing quickly, and I became tense. I asked to call an ambulance, and one of the family members made a call, but it will take time. Meanwhile, anything could happen! I started chest pumping (Cardiopulmonary resuscitation/CPR). I knew I could give him a Nidocard injection (nitro-glycerine) for chest pain (from my medical promotional officer job). Still, I was hesitant because I knew I was not a registered doctor. However, it was getting very late, and I gave him the injection in the name of Allah (God). I carried that injection in my bag when I heard about his chest pain over a phone conversation. Well, they took him to the hospital after 20 minutes. The next day his son came to my shop and thanked me. He said the doctors told him that the injection made him stable and saved his life; they also wondered who gave this injection to the patient. He also paid me Tk.500 (around A$8) as my fees and price for the injection (injection price was Tk.200), a total of Tk.700 (A$11)."

Mustahidur's narrative of this event is a common incident in many pharmacy daktars' responses to emergencies. They have saved lives by giving first aid and/or medical treatment. Such practices are similar to other contexts where healthcare providers such as traditional or trained midwives (Towghi, 2018) or first aid providers remain outside biomedical legitimacy but use their medical knowledge and experience to respond to emergency needs promptly. Previously researchers have shown that village doctors (based in a retail shop) in rural Bangladesh lacking formal qualifications were offering healthcare in case of an emergency even after working hours and at patients' homes. The demand for their services is high because of the shortage of qualified physicians and facilities in remote areas (Cross and MacGregor, 2009; Mahmood *et al.*, 2010; Parr *et al.*, 2012; Rahman *et al.*, 2015; Billah *et al.*, 2018; Shah, 2020). However, I have observed that many cases like pharmacy daktars such as Mustahidur are in fact, a source of urgent support for community people, even in urban cities and despite the availability of qualified practitioners or facilities. Pharmacy daktars are available at their pharmacies during most working hours, typically from early morning to late night. Still, anyone can contact them after hours or in emergencies since they live nearby. My findings are similar to Shah's, 'one phone call is enough' to get a pharmacy daktar to the patient's home (Shah, 2020, p. 180). The availability of pharmacy daktars in neighbourhood areas is one of the common reasons people can access their services instead of finding a qualified doctor with higher costs and prolonged waiting times.

Minor surgeries and other non-emergencies

Retail pharmacy daktars do minor surgical operations in their shop/chamber for emergencies like injuries from accidents that may need stitching (to stop bleeding) before getting additional medical care. Road accidents or work/industrial health hazards are pharmacies' most common types of emergencies. Naimul, a pharmacy daktar in Mirpur, Dhaka, mentioned his experience:

> "As you may have already seen, this area is full of garment factories, welding, and metal factories. Building construction is also common throughout the year. We commonly get many injured patients at our pharmacies in the locality. Some may have cut their fingers or hand or may be wounded. For instance, a needled finger is common for garment workers in factories here. I have experience doing stitching for many such patients. I usually handle small injuries, but I refer critical ones to a hospital that I think cannot be done here. So, if they (healthcare seekers) do the small operations here, they get them at less cost. For example, a few days back, a boy cut his head a little and needed two stitches. He went there (hospital), and they charged him 800/- (A12.20), but if he had come here, we could have done it in 100/- (A$1.5). I have done many operations like this, even over ten stitches in case of serious cuts on the body."

Some pharmacy daktar also perform non-emergency surgical operations, including circumcision surgery as a regular service in their shop or home (see Chapter Two). As presented here, the scope of services they offer makes their pharmacy shop a 'one-stop service centre' (Shah, 2020), an 'all-in-one' healthcare service point within a community living setting. A few pharmacy daktars claimed that their role and services are no less than what a formal general practitioner (MBBS) offers because they also provide all basic primary healthcare and often deal with lifesaving emergencies. One pharmacy daktar in Dhaka explained:

> "Look, we may not have the degree, but I think we do all basics, and people come to my pharmacy for their everyday health problems. Even if someone asks for an MBBS doctor to come home, they will charge an exorbitant fee. Well, maybe in Dhaka city, you can find MBBS doctors if you try, but in most rural areas, people will not find qualified doctors in miles except in district-level towns. As you can see, we are no less than MBBS or a nurse providing basic healthcare to people in need. Considering people's financial ability to spend on health, we sometimes are better than doctors (as they are expensive to access). We remain unrecognised/informal as practitioners because we do not have the approval to prescribe."

The Pharmacy daktars I interviewed moreover stressed that public hospitals are not viable options for many primary health problems due to distance and unsatisfactory service quality. In fact, there are many public hospitals near the community in many urban cities, but private healthcare is costly, so people are forced to go the public hospitals despite the inadequate quality of care. In some contexts, most pharmacy daktars think they serve the community better than formal and registered doctors. For instance, they highlighted the COVID-19 outbreak

context when most of the formal MBBS doctors closed their chambers (in private hospitals and pharmacies) and stopped providing healthcare altogether, while pharmacy daktars continued their services; I detail this in Chapter Three. While pharmacy daktars are less expensive than formal doctors (Mahmood et al., 2010) and physically and socially closer to the community, their business is competitive as there are retail shops in the market. In addition to their home service, pharmacy daktars undertake strategies and activities to gain trust and attract customers that support their image (medical person)/personality as practitioners to help reinforce trust between them and the customers. In the next section, I delineate how pharmacy daktars set up their shop and their performative activities and interactions with healthcare seekers to impress them and make their retail pharmacy business more competitive in the market.

Symbolic interaction and perception of pharmacy daktars about their role

Pharmacy daktars, in my research, other than serving patients and selling medicines, also undertake strategic activities to be competitive in the market and attract their patients and customers. Such actions and social dealings with customers act as symbolic interactions with healthcare seekers, building social relationships within the community. Among others, primary activities include shop/chamber decoration, being a *Bandha* [25] daktar (permanent provider/family doctor), having a good social network (Shah, 2020), offering different accessible services and selling on credit (Bhuiya, 2009; Mahmood *et al.*, 2010; Shah, 2020). Here I discuss all of these along with my other findings.

Shop and chamber settings

The shop decoration and setting of a chamber for patients are crucial for a pharmacy daktar. The environment of a doctor's practice room or chamber in a retail pharmacy is very different from the conventional notion of a biomedical doctor's room. No matter how small or big the space is, it must be designed so that customers can see the medicine desk from outside, enter the shop, or approach the shop operator easily. Generally, customers approach the pharmacy operator/daktar from outside the counter/ desk. Whenever I entered a pharmacy shop, I saw a glass-covered desk with a bench or chair. Usually, there is a waiting space inside the shop for patients and a private room for a health check-up or an operating room. Sometimes, I found no waiting space; customers approach the seller/owner from the other side of the counter, standing on the street beneath the shop shutter. The shop space varies in size; among the shops I have observed, they range from 50 to 200 square feet. The chamber is usually a

[25] The Bangla word *Bandha* translates permanent in English, in other word means family doctor.

partitioned room separated by a curtain to make it private from the rest of the part of the shop. Still, sometimes, mostly when the space is smaller, there is simply an examination couch beside the counter or inside the shop surrounded by medicines and products. The photographs below show shop and patient check-up settings in a minimal space in urban Dhaka.

Figure 5: A pharmacy Daktar and shop settings in Urban Dhaka. The researcher with Mustahidur at his shop/chamber in the first photo, a bed is visible too that is used as patient bed for examination. The second photo shows his medical bag in which he carries medical kits medicine when he goes for a home call. There are some confectionary and candy items also available in his shop. Photos: Nur Newaz Khan

Pharmacy daktars also stressed the significance of shop decoration and chamber environment. Placing the medical tools, choosing attire, and interactive appearance is essential as this reflects the practitioner's personality as a medical professional to their patients. Samirnath, a pharmacy Daktar in the rural site, explained why a chamber and pharmacy decoration is vital to him:

> "You can tell many things like the popularity and quality of a Daktar by seeing their chamber; you need to show what you have; otherwise, people will not be impressed when they come to your chamber or shop. You can see we installed a refrigerator to keep medicine well maintained. I set up a CCTV camera as part of security. These also create a good impression. Even how I dress while practising is a matter to my patients and customers; it brings doctor-manner in you."

Figure 6: A pharmacy Daktar in his practising chamber in a rural site. The pharmacy owned by his family is at the front of this block. The refrigerator visible on the right side of the second photo is used to keep medicine and items requiring temperature control. Usually his brother comes by to pick items from here for the customers/patients. Photos: Nur Newaz Khan

Samirnath thinks his chamber is more popular than other pharmacy shops in the local market because of the facilities he added. He also has a strong network with diagnostic centres in the district, pharmaceutical companies and health-related NGOs. Samir also is a Blue Star[26] agent providing family planning services such as free consultation and recruiting for contraceptive method users. Like Samirnath, all the pharmacy daktar refer their patients to more qualified and prominent facilities (public and private) and often manage discounted health services for their customers. Some pharmacy daktars often accompany their patients in city hospitals to guide them, thus building a good relationship with healthcare seekers.

Figure 7: Information display at Pharmacy shop. Posters and leaflets display in retail pharmacies consist information about medical services like diagnosis and test faculties, specialised doctors and their consulting hours. Photo by the researcher. Photos: Nur Newaz Khan

Displaying information is essential for shop decoration. It provides customers with information about various health services, facilities, medicine, and products in the market or other places where people can access more qualified and specialised healthcare. Apart from the pharmacy daktar/shop owner's appearance and behaviour, such display is heavily influenced by the mutual interest between the pharmacy daktar and pharmaceutical companies who advertise their information in the retail pharmacies. The posters and flyers in retail pharmacy shops provide information about formal and specialised biomedical doctors practising in different private hospitals, diagnostics and clinics in the district and divisional cities.

All Pharmacy daktars I met have contact with specialised doctors, popular pathology labs and diagnostic centres in larger city towns. The representatives from private healthcare organisations also come to retail pharmacies to advertise (I discuss this in detail in Chapter

[26] According the website of the Blue Star is an intervention running by a private company named SMC (Social Marketing Company) focused on contraception method and family planning working across the country. To see details about it visit: https://www.smc-bd.org/blue-star-program-bsp-

Six). Few studies are available about the impacts of medicine promotional literature (Lexchin, 2010; Sharmin *et al.*, 2017) and pharmaceutical marketing on prescribing practices (Vancelik *et al.*, 2007; Shah, 2020). However, research on medical and pharmaceutical advertising at retail pharmacies is rare in Bangladesh. In other contexts, scholars have noted that the advertising patterns in different medical facilities also significantly influence prescribing practice and medicine dispensed in pharmacies (Dumit, 2012). There are strict regulations in many developed countries, but their enforcement in many developing and poor countries is unclear. According to Bangladesh's drug policy, public advertising of drugs is prohibited, yet it is ubiquitous in retail pharmacy shops where one can find heavily displayed drug and medical facilities advertisements. Pharmacy daktars consider such displays helps them in two ways. Firstly, they are getting updates on the most recent developments in drug manufacturing and medical services available. Secondly, their customers also see this information, such as medical services available in nearby city locations, which they can avail of when needed. One pharmacy daktar explained the usefulness of such display in this way,

> "Pharmaceutical agents (medical promotion officers) come and ask to post their new or special offers. People from private hospitals and diagnostic centres also come to my shop to advertise their services. I keep them because they help my customers/patients with information about medical services available in different places. It also helps me build my impression that I have updated medical knowledge, and my customers benefit more from me. Well, there is no cost for me in this; they (the agents) come and post the display, and it benefits me. The display of all these also creates the medical environment for me."

Pharmacy daktars' relationships and networks with formal doctors, diagnostic centres, pharmaceutical companies and state authorities help to produce their social capital (Bourdieu and Wacquant, 2013). These relationships also shape their work experience and clinical skills through exposure to updated knowledge on biomedicine, and all this, along with the shop decoration and their personal appearance (dress), help to produce their cultural capital (Bourdieu, 1983; Abel, 2008; Dubbin, Chang and Shim, 2013). This cultural and locally specific social dynamic enables pharmacy daktar to maintain reputation and image in the eyes of the patients and other stakeholders in health service. Some pharmacy daktars, in interviews, also emphasised to me the importance of their experience, reputation and bonding with their clients. Being a *Bandha* Daktar (family doctor) for the local customers and maintaining social relationships within the local community has significance in building their reputation and image, as also observed by Shah ((Shah, 2020).

Bandha daktar: Experience, reputation and community belongingness

The pharmacy daktars I interviewed have permanent clients who they have been serving as family doctors for many years. They are consulted and called for home visits by their clients

for any primary health and even often also for health emergencies despite the fact that clients can reach a formal practitioner. From my pre-PhD study interactions in the field and more recent literature (Shah, 2020), I had assumed that such practices of *bandha* daktars are more prevalent in rural villages. However, my ethnographic research made clear that although formal health facilities are available in most urban areas in the capital city Dhaka, many people, nonetheless, still rely on a particular community pharmacy daktar as their regular primary healthcare provider for the family. This trend is perplexing, given the financial ability of healthcare seekers to afford qualified doctors. However, such dependence on pharmacy practitioners is rooted in the legacy of these pharmacy daktars' practices, and shaped by the fact that MBBS doctors were rarely found or available in the locality. Research participants mentioned that even ten to fifteen years ago, there were no MBBS doctors in many regions of the country. Village doctors or rural medical practitioners (based on their pharmacy shops) were the only sources for many care seekers. As I observed, some pharmacy daktars who have practised for many years (a maximum of 35 years found in my research for this thesis) have achieved their patients' trust as reliable primary and urgent healthcare providers.

Another vital factor regarding people's reliance on pharmacy daktars is that they work and live in the same community or a location nearby to the healthcare seekers. They are known for their occupation and as members of the local community. For instance, the pharmacy daktar Arun in Badda, Dhaka, is one of the well-reputed practitioners in the local community. He has been practising in that area for the past 27 years. He also benefits from having his wife as a registered nurse working in a public hospital, enhancing his reputation and patients' reliance on him. His wife often helps him in the pharmacy shop by performing minor surgical operations. According to him, it does not matter if a pharmacy daktars practice in a village or city; their community acceptance and belongingness are essential. He further explained this point,

> "I think you already have seen on your way here that many recognised healthcare facilities like big hospitals, even the Pioneer or Sina Diagnostic on the Badda main road. Well, it is right that cost is a fact, and people first do not go to those as they are expensive, but I think some of my clients are rich yet, come to me. I was here for them when there were only a few hospitals or MBBS doctors, say, even 10 years ago. I served them, and still, they come to my shop and seek medical advice from me. For many of them I am their *bandha* daktar. They know about my credential, yet they do not go to other doctors because they trust me. I came and lived here for 27 years, so I am also one of them. People also come to my home and wake me up at midnight for health emergencies. If you want to do good business in medicine, you need to build good bonding with your clients, help them, and stay beside them when they need you, no matter how low your income is. Someday that will give the welfare which will enhance your business."

Like Arun, most pharmacy daktars work and live 'close to the community' where they establish their 'communitas' (Theobald *et al.*, 2015). According to Victor Turner, communitas is a concept

to distinguish the modality of social relationships in ‘an area of common living’, an unstructured status of a community in which people are equal, or “to the very spirit of community” (Turner, 1969, pp. 94–130). Pharmacy daktars, in this context, live within the community they work, thus enabling them to build their communitas and fellowship with customers and patients. This, supports their positive social status and reputation or role as health care provider in the community and therefore strengthens their position as a pharmacy daktar. They, moreover, act as low-cost and the most available healthcare provider of everyday primary and urgent healthcare services to the care seekers who occupy a liminal zone between the economic vulnerability and expensive healthcare market in Bangladesh.

Flexible payment, free treatment and selling on credit

Most of the pharmacy daktars also give customers flexible payment options regardless of their financial ability, a common trend in the local business. If someone has trouble paying instantly, they can pay in instalments. All the pharmacy daktars shared with me a similar experience of pending payment from customers. Usually, patients and customers are from the same community or locality; hence, pharmacy daktars often see such dealings as strategies to retain their customers. Naimul’s statement is an example that summarises all of their experience:

> “A few days ago, a little girl came who cut herself and needed ten stitches because the cut was a triangle. At first, I don’t know if she has the money or not. I must serve her, but I later found out she had no money. Like her, I also have many pending payments yet to be paid by many of my customers. They are not poor, but this is a trend to keep payments due, like in a grocery shop. You buy things and pay later! As you can see, we need to be compassionate in this business.”

This scenario explains that pharmacy daktars sell medicine and health service on credit to achieve customer satisfaction as part of their business strategy. This is consistent with Shah’s note that ‘*Baki’* (credit) practice by village doctors (based on their pharmacies) works as their business strategy to retain customers. Such methods allow poor rural customers to pay later or at the time of ‘*halkhata’* a yearly event of collecting pending payments for traders (Shah, 2020, pp. 182, 186, 195–96). I found that retail pharmacies did not practise such *halkhata* culture compared to other businesses such as groceries and jewellery shops. I discovered that pharmacy daktars in rural and urban locations take different strategies to recover their payments from customers. One strategy is to stop selling medicine until customers partially pay their debt. Nevertheless, selling on credit remains a common customer-friendly strategy to run the business consistently. Although, as most pharmacy daktars mentioned, selling medicine and prescribing is a profitable business, sometimes they lose their profit as some customers, particularly those who are poor, cannot pay eventually. However, they consider this part of business reality to which they must adapt.

As the findings discussed here show, pharmacy daktars are well known within the community and perceive their role as serving their respective community (Hughes *et al.*, 2013; Gautham *et al.*, 2014; Rahman *et al.*, 2015; Shah, 2020). They offer a range of health services, including home visits in emergencies, providing "a degree of security" for patients (Sudhinaraset *et al.*, 2013), which is more expensive and rare to get from formal doctors or providers. Setting the shop/chamber with a good outlook, displaying medical information, helping patients with a referral or accompanying them in the process of treatment, offering lower and competitive prices and free consultation, and serving as *bandha* daktar are essential business promotional activities for pharmacy daktars to impress their customers and gain trust. Such symbolic interactions by pharmacy daktars align with Goffman's theorisation; in particular, his concept of 'impression management' explains societal communication of individuals, where people engage themselves in such interactions to make a positive imprint of themselves on others intending to help. In this case, pharmacy daktars undertake specific actions and ways of interaction to impress their patients and customers and, thus, build trust and maintain their "face work" (Goffman 1967 cited in Fields, Copp and Kleinman, 2006). This means the pharmacy daktars maintain the "face work" to preserve and build their reputation as reliable healthcare practitioners and providers. The way the pharmacy daktars display their shop/clinic and interact with the public and the consumers is symbolic of representation of their daktar/practitioner 'self' in the 'world' shaped by not only from their interactions with consumers and patients but also their counterparts in the health care system including with the bureaucratic aspects (Goffman, 1959 Cited in Hahn and Kleinman, 1983). How the pharmacy daktars work and present themselves is also an outcome of the expectations from their patients and customers about their role in the local community as healthcare providers where their interactions and negotiations set the 'rules' (Hahn and Kleinman, 1983, p. 318) of their actions that they recreate outside the authorised healthcare practising boundaries.

A simpler question in this discussion is why people go to unauthorised practitioners at retail pharmacies for prescription and treatment when most healthcare seekers know these practitioners are not qualified and authorised. Consistent with previous studies, my ethnographic data also show that because of their social and geographic proximity to patients and trustworthy status in the community, unauthorised pharmacy practitioners often hold social-cultural benefits over formal private and public providers. As the counterpart, healthcare seekers in my research generally consider pharmacy daktar as their most accessible and cost-effective healthcare source. Along with their proximity within the community, healthcare seekers also choose pharmacy daktar as their preferred practitioner because they can have sufficient consultation time and options to buy a smaller quantity of medicines. In the next

section, I present how healthcare seekers view and evaluate unauthorised pharmacy daktar, reasoning why they reach and seek healthcare from a retail pharmacy.

Healthcare seekers' perception of unauthorised pharmacy daktars

Healthcare seekers consider the location of pharmacies and pharmacy daktar in their neighbourhood as significant advantages. Formal doctors who practice at local pharmacies come from different locations (outside of the community), but pharmacy daktars live within the community or nearby locality and are members of the local society. Healthcare seekers can reach pharmacy daktar easily for help or even claim if anything goes array. Proximity and availability are also two crucial factors that are intertwined with the concern regarding time and cost that influenced healthcare seekers' decision to go to a pharmacy daktar. In what follows, I analyse why healthcare seekers access unauthorised pharmacy daktar in their everyday healthcare needs.

Availability, proximity and pharmacy daktars:

Rashel works in a research organisation; his wife is at a government primary teachers' training institution. He shared this story when we had an informal discussion in a tea stall while waiting for other Focus Group Discussion (FGD) participants to arrive. Rashel, with his wife and two children, live in the southern part of Dhaka city. One night, his 3-year-old son started vomiting around 2 am; he panicked and could not figure out what to do. There is one government urban health centre, which closes at 4 pm. At midnight, fewer private hospitals were open nearby where they could take their son, but Rashel feared a wrong diagnosis and was doubtful about the quality of service in those. He then tried to call one of his friends, who is a doctor but could not reach him over the phone. The kid vomited for the fourth time and started having diarrhoea and itching in the body. His body turned reddish with allergic symptoms; soon, he got fragile and stopped taking food. Rashel then remembered about Jahir, pharmacy daktar operating his shop just on the ground floor of their building. He checked the time on the wall clock; it was 2:20 am, and the shop was closed. However, Rashel called Jahir over the phone, and after the third attempt, the call was answered. He explained the urgency. Jahir told him to take his son to his shop. Jahir lives in the same area, just around 1 km away. While Rashel took his son down to the ground floor, Jahir was yet to arrive, and after a few minutes, he was seen walking down toward them. He mentioned he could not get a rickshaw at this time, so he walked. He opened his shop's shutter halfway and asked Rashel to take to the boy inside. He checked the boy's stomach with a stethoscope and measured his body temperature. Then he gave the boy two spoons of Sandom (Domperidone) and 5 ml of Fexo syrup (Fexofenadine, an antihistamine). Rahel asked how much he should pay. "We can talk tomorrow afternoon about

that. Now you take the child home and try to make him sleep. He should be improving now; I am going to sleep again as I need to open the shop in the early morning."- Jahir replied. Rashel took his son back to their flat. Rashel added that he found the boy sleeping longer the following morning and around midday, he got awake. He was hungry, ate food, and then he looked okay. Rashel paid Jahir Tk.200 (100 for medicine and 100 as his fee, which was less than A$4.00) that evening. Rashel also mentioned that if he had gone to a hospital, it could cost 1-2 thousand Taka (A$15.5-32). He also stressed that if he had called an MBBS doctor to do a home visit, it could include at least a Tk.500 (A$7.5) fee. "Even after paying this amount, you might not get an MBBS doctor to come to your house at that night time."- Rashel added. This incident is an example of a lower-cost urgent healthcare service provided by a pharmacy daktar in Dhaka city at an unusual time.

This case scenario validates the version of what pharmacy daktars mentioned as their role within the community. Whether they are near or far, the higher cost of formal doctors for consultation is the common reason healthcare seekers would go to unauthorised practitioners in pharmacies. These findings are consistent with the literature; the proximity to the residence, round-the-clock availability, and less cost (Mahmood *et al.*, 2010; Billah *et al.*, 2018; Shah, 2020) were the main reasons mentioned by the healthcare seekers for accessing unauthorised but effective (as cured for the time being) healthcare providers.

Khuchra Oshudh (smaller quantity of meds) and repeat medication

Retail pharmacies are also considered an easy source for a smaller quantity of medicine and repeat medication without prescription as a form of self-medication or after consulting a pharmacy daktar. Many customers cannot remember the brand names of drugs they are prescribed or given; they bring the already consumed pack/strip of medication and ask for more of the same from pharmacy operators. Lack of financial ability at the moment is another significant reason for a request for a smaller quantity of medicine. On a few occasions during my observation in retail pharmacies in both urban and rural areas, I observed such encounters. One example from Haider's shop in Dhaka can help us understand such scenarios.

> Nazma: Bhai (brother), give me two *pata* (strips) of these medicines and five single tablets of that one.
> Haider: What medicine? Do you have the prescription or know the name? (Haider asked without looking at her as he was busy sorting medicines on shelves).
> Nazma: I do not know the name, and I cannot read it; such a difficult name! Your brother (her husband) usually buys meds for me, but he is now at work, and I need these medicines daily. That is why I brought this *khali pata* (consumed empty trip). I also need two other medicines you suggested last week for my mother.

> [Haider had a look at the strip and at his medicine desk. He cut some strips and gave her four different medicines per her request, but one of the brand names was not in his stock.]
> Haider: I do not have the same company (brand) for this one. Is it a problem if you take another company but the same medicine?
> Nazma: which one, that red coloured one? It is my mother's pill for her high blood pressure. [Pari got confused]
> Nazma: I will tell your brother (her husband) to come in the evening and decide; this one is not urgent. Can you please tell me the daily time and doses for these again?

Haider then took a pen and marked each medicine strip differently for her to remember easily and explain the doses. She thanked him and said her husband would pay in the amount when he returned from work. Haider wrote the price on his bookkeeping note. For healthcare seekers, such trim options of buying single trips or tablets and helping with dose direction by marking or cutting particular medicine strips are standard services that make pharmacy daktar more popular and accessible than any formal practitioner.

Time, health expenditure and practitioner

Time determines healthcare choices concerning health costs, as investing time in illness management is significant for healthcare seekers. I observed in my field that time in any healthcare encounter for people has two aspects. First is the time to reach a formal practitioner in contrast to the travel distance and cost involved. Second is the time the practitioners allocate for diagnosing any illness/disease. Both reasons are essential determinants for healthcare seekers in choosing a cost-effective healthcare provider regardless of qualification. In rural areas, most healthcare seekers find it difficult to go far (e.g. sub-district or district city) for a formal doctor as it takes longer. Regardless of rural or urban locations, registered practitioners in public facilities allocate less time for patients to check, discuss and diagnose. Healthcare seekers in my research mentioned that the time for consultation provided by formal doctors is often inadequate. As one woman in FGD in the rural site said,

> "We need to go to town (district city) to see MBBS doctor and pay a big amount, say at least Tk.300 minimum and most of the time Tk.500. However, they will not see (health check) you properly; they only write for tests (examination)! Who wants to spend a lot of money when a doctor is not giving you enough time and look into your problems? As you can see, it takes a few hours if we go to the city of daktar. We need to go to work (job) now; if we go to the city for non-critical health problems, we cannot finish our daily work. It is also a matter of loss of income for men on that day. Therefore, unless it is critical, we do not go to them; rather, we go to *dokan er daktar*[27]. They can also come to our home at any time or on the day if you need because they also live in the same or a nearby area."

[27] *Dokan* means shop in English, meaning pharmacy here and *Dokan er Daktar* means practitioner at pharmacy shop

As participants explained, time is precious for income in both rural and urban life. However, it is more crucial in urban settings as 'hour is money' for people. They do not want to (and/or cannot) spend much time reaching formal biomedical healthcare to deal with minor or regular (seasonal) illnesses. In urban pharmacies, patients get less time from the practitioner than in rural ones, yet healthcare seekers think they can reduce unnecessary health costs by relying on them. A male participant in one urban FGD explained it this way,

> "If anyone goes to a hospital or clinic in Mirpur 10 areas, they cannot do their regular work (job/earning) on that day. The waiting time in the chamber is too long, and you also lose a lot of your time on the road too[28]. Most people do not have the means to take a day off from their work. So, we simply go to pharmacy daktar when we have enough time, say after work. They do not take any visit (fee); you only pay for medicines. Say you have a fever or pain in the body, now you go to a pharmacy, and he will give you paracetamol or a painkiller. You take that and go to work. If it does not heal you within one or two days, you return to the shop at night and ask again. He will give you antibiotics then, and you are cured within two or three days, that is it"

Consistent with previous research, as the above evidence shows, the factor that makes pharmacy daktars a regular choice to consult with is that they provide enough time for patients to discuss their problems (Mahmood *et al.*, 2010; Shah, 2020). Moreover, they can consult with them at their shop or ask for a home visit. The willingness to serve round the clock, sell a smaller quantity of medicine, allocate sufficient time for patients and provide flexible payment options place pharmacy daktars' position in the community as reliable healthcare providers (Mahmood *et al.*, 2010; Billah *et al.*, 2018; Shah, 2020). This biomedical context illustrates Hahn and Kleinman's analysis of Goffman's idea that the individual 'self' is not constant; instead, it is a series of presentations adapted by social interactions. People's actions are generated by the settings in which they live and work (Goffman 1959 cited in Hahn and Kleinman, 1983). The role of pharmacy daktars shows that the actions of practitioners (or healthcare providers) could be the outcome of patients' expectancies about their roles in working settings that also "recreate those settings and 'rules' through negotiation" (Hahn and Kleinman, 1983, p. 318).

Most registered formal (MBBS) doctors view pharmacy daktar as "unqualified practitioners" (Shankar, Partha and Shenoy, 2002; Deshpande *et al.*, 2004; Seeberg, 2012; Hughes *et al.*, 2013; Rahman *et al.*, 2015; Shah, 2020). By contrast the healthcare seekers in my research consider pharmacy daktars as their "*bipod er sathi*" (a friend when one is in need or has an emergency) or '*apatoto kaj chola'* (a cure/purpose served for the moment). Charles Leslie

[28] Traffic jam is a big issue for urban settlers in Dhaka city. According to a 2018 research conducted by the Accident Research Institute (ARI) of the Bangladesh University of Engineering and Technology (BUET), five million working hours are lost annually due to traffic congestion (Dhaka Tribune, 2018). A World Bank also report says, 3.2 million working hours are wasted due to traffic congestion in Dhaka (Nabi, 2018).

viewed such practices as ‘quackery’ rather than charlatanry (Leslie, 1980, p. 193). Many pharmacy daktars have been practising for a long time and are well known for their charismatic healing skills in the local areas, while their service may also be cost-effective. Mushadiur’s case of saving life in a critical situation, Haider’s services on the spot for patient faced road accident, Naimul’s role as a ‘child specialist’ and serving nebulizer for an emergency asthma attack to a child (figure 15 on page 100) are all examples of a pharmacy daktar’s actions that reflect the charismatic quality of practitioners, as perceived by patients and customers that is equivalent to a qualified MBBS practitioner. Hence, people generally say ‘*haater josh valo’* (magical healing hands in practice) when referring to an experienced and skilled pharmacy daktar who they know they can rely on as a *bandha* daktar (permanent practitioner) for the entire family. The practising skills of the pharmacy daktar that provide a quicker remedy as well as their social and communication skills that help to nurture and/or build the social bond between them and their customers characterise the pharmacy daktars work that shape and reinforce their charismatic authority in biomedicine (Weber, 1968; Kalberg, 1980; Hollin and Giraud, 2017). Such qualities provide pharmacy daktars with the informal cultural authority and rationality to continue their practice even if they lack legal biomedical authority to prescribe and practice.

Conclusion

As illustrated in the chapter, the pharmacy daktar, as the community healthcare provider, plays a pivotal role in Bangladesh as the first contact health service point even if they are not authorised or formally recognised. Factors like cost, time, and distance entailed in accessing formal biomedical practitioners drive healthcare seekers to access unauthorised pharmacy daktars because they are accessible and their services cost-effective. Distance, lack of sufficient health workforce and absenteeism of registered doctors have increased patient dissatisfaction with public health institutions. Absenteeism is related to public service practitioners who also have private medical practice. Private healthcare providers remain expensive and unaffordable for many healthcare seekers. They reside near the community, share a common understanding and culture, and offer competitive health costs to care seekers, allowing unauthorised pharmacy daktar to have a resilient position in this economy of unauthorised healthcare. Pharmacy operators use their prior work experiences in biomedical settings or a pharmacy shop and the knowledge gained from the informal courses to provide healthcare to a community of people who seek healthcare from them; they become part of that community. This is reflected in patterns such as their presence as care providers to care seekers in urgent need, such as helping them find better treatment or providers and often accompanying them to avail discounted health services or specialised doctors in city locations.

As the ethnography in this chapter shows, the practices of the unauthorised pharmacy daktars and their relationship with the people who rely on them reveal how biomedical authority can be constructed and practised in local culture. Despite the unauthorised use of biomedical authority and potential health risks of the uncontrolled practice by pharmacy daktars, people regularly go to these practitioners for healthcare and medical services. The role of pharmacy daktars as the nearest and available service provider is significant and contributory in case of a health crisis like an outbreak of a disease. For instance, as I observed during my fieldwork, while healthcare providers and medical drug and equipment sellers capitalised on health crises at macro and micro levels, pharmacy daktars were the consistent primary healthcare provider during the COVID-19 pandemic as compared to formal and registered doctors who stopped their practice altogether. In the next chapter, I connect the concepts of disaster capitalism and the moral economy of health to analyse how healthcare providers, including pharmacy daktars and the medical industry (state and pharmaceutical companies) reacted to the COVID-19 pandemic in their healthcare service delivery role.

CHAPTER THREE: HEALTH CRISIS AND PRIMARY HEALTHCARE: COVID-19, DISASTER CAPITALISM AND UNAUTHORISED PHARMACY DAKTARS

Sohel felt helpless as he could not find any oxygen cylinder anywhere in Dhaka for his elder brother, who was diagnosed with COVID-19 in June 2020. He contacted a few private organisations providing oxygen for COVID-19 patients, but they charge Tk.30,000 for the first cylinder and Tk.5,000 for a refill. Sohel could not afford that, and it was getting late as his brother's condition was severe. His brother's family lives in another suburban area around a 10 km distance. Sohel panicked as his wife was pregnant and needed to be taken to a hospital for regular check-ups, but he had to go to his brother's home. The patient could barely breathe and seriously coughing. They finally managed one oxygen cylinder for Tk.5,000 from a charity organisation. The following day Sohel took his brother to the nearby government hospital, where COVID-19 treatment was announced free. His brother is a diabetes patient, which worsened the conditions as he was found with very high-level sugar. Doctors advised some additional medications from outside pharmacies. After eight days, his brother was released from the hospital with a negative test result and a six-month follow-up treatment, but they had already spent Tk.40,000 for his COVID-19 recovery (A$620 Approx.). Sohel works in a research firm and lives in a suburban area in Dhaka city. Sohel's wife was in her first month of pregnancy when the lockdown was announced in late March 2020. They could not go out for a month and missed her check-up with a doctor since everything was shut down. They found that even the public hospital stopped providing service for a month, and private doctors kept their chambers closed for at least three months. In July, when Sohel's elder brother was in the hospital, they also missed an appointment with their doctor in Mirpur since Sohel was with his brother at that time. Rupali, Sohel's wife, was diagnosed pre-diabetic during her early pregnancy. She also needed to be given a few injections related to her pregnancy-related conditions. As they live on the top floor of a six-storey building without a lift/elevator, it was difficult for Rupali to get down often and go out. They used to go to a hospital run by a Non-Government Organisation (NGO) at a 3 km distance. However, they were told to have a COVID-19 negative test before visiting any doctor; that was very difficult for them because there were few places available for COVID-19 tests, which were costly. The pharmacy where I met them is located in their neighbourhood. They came to Minar's shop for general check-ups and to take one of her prescribed injections. Minar checked her blood pressure, body weight, fever, and blood-sugar level, and he served her a prescribed injection. They paid him Tk.50 only that was the cost for blood sugar test kits.

Sohel shared the interaction in Minar's pharmacy with me in late July 2020. Sohel's and his family's experiences exemplify how many people suffered from accessing healthcare services during the COVID-19 pandemic times in Bangladesh. Drawing upon my fieldwork observations, in this chapter, I discuss the role of the health authorities and healthcare providers in Bangladesh during the COVID-19 pandemic and its impact in 2020. Here, I reflect on how corruption and capitalisation of profit increased or rather intensified at different levels of the health system and how healthcare providers reacted to this outbreak in their occupations and services. I have organised this discussion into three parts. In part one, I review secondary sources to discuss how the state health authority failed to address the atrocity and chaos in controlling the early incubation of COVID-19 and ensuring necessary healthcare for citizens in Bangladesh. I emphasise how mismanagement by authorities, rumours and fear of infection affected health behaviours among people.

In part two, based on the concept of 'disaster capitalism' (Klein, 2007), I discuss how people working in the health sector at both macro and micro levels took advantage of the health crisis and capitalised on their profit over health and life. At the macro level, I focus on how the state's elusive role and politicised ground of health governance and corruption served corporations' business interests rather than caring for citizens' health. I also discuss how such a situation enables illegal marketing of lifesaving medicines, medical equipment and the treatment of COVID-19 disease. Access to primary healthcare services at all levels in public and private sectors, including retail pharmacies, was seriously affected during this COVID-19 crisis.

In part three, I discuss how pharmacy daktars, though officially unauthorised, provided most of the primary healthcare and acted as the frontline healthcare providers at the community level in Bangladesh in the days of COVID-19. During the pandemic, at the micro level, while occurring at a smaller scale, I observed profit-maximising tendencies among individuals in pharmacy retail shops among pharmacy daktars. While they provided services at a higher cost than usual, they continued their services despite the panic and a great fear of COVID-19 and at a time when even the formal doctors showed great reluctance to serve the public.

The COVID-19 outbreak and the state's role

Since December 2019, the global community has been deemed at risk of infection from a novel coronavirus. The coronavirus disease is referred to as COVID-19 and was declared a pandemic in 2019, leading to local and global "lockdowns" (Hasan and Nead, 2020). Bangladesh officially reported the first case of COVID-19 infection on 8 March 2020 (Bodrud-Doza *et al.*, 2020; Siam *et al.*, 2021). Bangladesh faced voluminous cases of infection and a high number of mortality due to the infection with the COVID-19. At the time of this chapter's

writing, the World Health Organization (WHO) recorded a total number of confirmed cases in Bangladesh is 2,037,187, with 29,440 deaths from COVID-19[29]. Throughout February 2020, Bangladeshi citizens were returning from China or other countries impacted by the pandemic and lacking preventive measures like quarantine or isolation despite concerns reported by local experts. The government announced using thermal scanners at Dhaka international airport for screening off any passenger suspected of having a high fever. The media criticised and reported that six out of seven scanners were faulty, and mismanagements were reported in controlling the influx and quarantining process (New Age, 2020d). In late February, the government also introduced the fever detecting hand thermometer to detect individuals with a fever who could be separated for a COVID-19 test in the Government Institute of Epidemiology, Disease Control and Research (IEDCR) laboratory. From the very beginning, the IEDCR was controlling the directive power of corona testing and conducting daily press releases with updated situations on COVID-19. However, a flight from Italy got attention on 7 March 2020 because three individuals tested positive with COVID-19 which appeared in the official report on 8 March. Flights continued to arrive from Europe and China worsening the situation in Bangladesh when most of the returnees travelled to their rural homes and were unwilling to comply with isolation and quarantine (Anwar, Nasrullah and Hosen, 2020). The government deployed armed forces, police and administrative authorities to control people's movement on the streets and banned public gatherings. Social panic had spread over media and online platforms by that time, and rumour also played a significant role in spreading the fear of infection.

Rumours, fear and panic: perceptions of coronavirus and health behaviours

As cultural and linguistic phenomena, rumour and gossip are crucial in anthropological studies. Anthropologists working on health and illness across cultures have long analysed rumours, gossip, and suspicions as intertwined in cultural belief and politics (Armstrong, 2016; Bonhomme, 2016; Feldman-Savelsberg, Ndonko and Yang, 2017; Ali, 2021). Both are informal but key ways of cultural communication that significantly impact individuals' and groups' views, beliefs, and actions. Rumour can spread from apparently insignificant sources as 'word of mouth transmissions' and could be 'an array of interpretations filtering into abrupt social repercussions' that can trigger and turn into 'cognitive underpinnings' among people (Stewart and Strathern, 2003; Stewart and Strathen, 2020). Rumours may take many forms, and the most discussed transformation is the digital platforms in the contemporary world, such as misinformation or fake news on social media, which have a tremendous influence on the viewers, readers and followers (Stewart and Strathen, 2020). During the COVID-19 pandemic,

[29] For latest update of COVID-19 related statistics please visit https://covid19.who.int/region/searo/country/bd

the world has witnessed rumours universally affecting health behaviours among people and even forcing changes in policies and legal frameworks related to health (COVID-19 health rules, lockdown, quarantine, isolation etc.). In this section, I present some of the major rumours that significantly influenced health behaviours and people's movement at the beginning of COVID-19 in Bangladesh.

During the early COVID-19 spreading days in Bangladesh, the first rumour that spread was the notion that coronavirus does not affect Muslims and only targets sinners. Such narratives went virtual on social media along with the detail that the virus is a punishment sent by Allah (God) for atheists. Such rumours also included the idea that China was the first country to experience COVID-19 because they consume *haram* (prohibited) in Islam food and torture Muslims in Uyghur (Haque, 2020). Religious narratives circulated on Facebook saying the virus affected Italy and France because they dishonoured the Muslim Prophet. Another narrative was that by mass praying six healing verses from the Quran could prevent the virus. On one occasion in late March in Bangladesh, just after the official lockdown was announced, a mass gathering was called to pray to avert coronavirus, which was thought to be triggering rapid virus transmission. According to the state report, ten thousand people participated in this event. However, news media referred to the eyewitnesses reporting that at least thirty thousand participated in the event without any protection, such as wearing masks (BBC News, 2020).

Figure 8: People gathered in a mass prayer event amid COVID-19 lockdown in late March 2020 in a southern district in hope that healing verses can prevent Coronavirus. Photo: https://www.bbc.com/news/world-asia-51956510

Following this news, another mass gathering took place to perform the funeral of a religious leader in a district on 19 April 2020, defying the lockdown. As reported, nearly 100,000 people

gathered at this funeral when the county recorded around 2500 COVID-19 cases and over 90 deaths (Kamruzzaman, 2020; News.com.au, 2020; Wyatt, 2020).

Figure 9: People gathered at the funeral of a religious leader defying the COVID-19 lockdown rules. Photo: Anadolu Agency. https://www.aa.com.tr/en & https://News.com.au

On the second week of COVID-19 incubation, the rumour circulated that eating three *Thankuni pata* (Indian Pennywort) can cure coronavirus, something that had been started by a religious preacher who dreamt about such a remedy. On 17 March 2020, videos were posted on Facebook showing people hunting for *Thankuni* leaves at midnight (Munna, 2020). In some versions adding *Kalijira* (black cumin) with *Thankuni pata* was also suggested. Subsequently, the market price of *Thankuni* and *Kalijira* went up for about a few weeks. On 12 March 2020, I went to a local vegetable market near my fieldwork residence in a suburban location in Dhaka city. I observed the price of *Korola* (bitter gourd) was surprisingly low, as well as the demand from the customers. When I asked the seller, he mentioned a rumour spread that *Korola* has the coronavirus. On the same day, I found a video clip circulating on Facebook (removed lately) showing a housemaid saying that people in their neighbourhood stopped eating *Korola* because they feared it had the coronavirus. It looked insignificant initially, but it influenced the vegetable market in my neighbourhood among low-income people for at least a week. Similar rumours were reported in a 2020 study that *Tilapia* fish (Oreochromis Niloticus) and *Pangas* fish (Pangasius) are at risk of coronavirus, and consuming those could infect humans with the COVID-19 virus. Such rumours affected market sales and created difficulties for fish sellers (Akon and Bhuiyan, 2020).

In March and April of 2020, several rumours and speculative misinformation spread, resulting in ignorance of this highly contagious viral infection and related protection regulations. For instance, Akon and Bhuiyan, in their 2020 survey, showed the rumours spread that coronavirus does not survive in hot and humid conditions and will not stay in hot and humid conditions in Bangladesh for long and drinking hot tea can cure the virus. They also noted that the majority of their respondent supported the rumour that coronavirus will only affect the aged population,

and young people do not need to be worried (Akon and Bhuiyan, 2020). Al-Zaman noted that political narratives at national and international levels also help “spread misinformation” and rumours about COVID-19 along with other forms (Al-Zaman, 2021). We have also observed similar rumours and fear spreading all over South Asian countries at that time (Ali, 2020; M. S. M. A. M. S. Islam *et al.*, 2020; Siddiqui *et al.*, 2020; Khanal Id *et al.*, 2021). These bits of evidence show that rumours can significantly alter health-related beliefs and behaviour in local cultures and do not necessarily comply with scientific confirmation of proof or legal measures. According to anthropologist Veena Das, images of contagion and infection are often used to denote rumours where language does not work only as a medium of communication but also ‘becomes communicable, infectious, causing things to happen almost as if they had happened in nature.’ (Das, 2006, p. 119). In some contexts, cultural beliefs on specific information (rumours) or practices cannot be judged as just superstitious (Bonhomme, 2016). COVID-19 related rumours in Bangladesh discussed here also show that rumours are not just a matter of noncompliance or failure to comprehend but express linguistic transformation into cognitive mobility affecting health behaviours at the mass level.

Fear of infection and related stigma also extraordinarily affected caregivers’ role in healthcare facilities and families. People were abandoned by their relatives or employers on suspicion of infection. Front line healthcare workers such as nurses and paramedics were denied proper care and abandoned when found infected with COVID-19. Electronic, print and social media were flooded with news, posts and images of people suffering from a lack of access to minimum healthcare while infected with COVID-19. Graphic images of dead bodies on the news became common (for example, see linkmix.co/9538179). Suicide in hospital patients due to rejection of treatment by health workers was also reported (Mamun, Bodrud-Doza and Griffiths, 2020). Many people died from their critical preconditions as they were denied emergency healthcare due to fear of coronavirus infection associated with COVID-19. Primary and regular healthcare, such as for children and pregnant women, become serious concerns. Although not all were related to COVID-19, many people died without care, were left outside by their relatives and were even denied a proper burial out of fear and social stigma (S. Islam *et al.*, 2020; Shammi *et al.*, 2020, 2021; Siam *et al.*, 2021). In the next section, I discuss how mismanagement, lack of coordination and corruption among public authorities and private industries resulted in absolute chaos and the mismanagement of the COVID-19 health crisis.

Infection control and mismanagement among the state authorities

The initial outbreak of COVID-19 forced the Bangladesh government to shut down all public and private offices except the emergency service providers from 26 March 2020. As the lockdown approached, like many other COVID-19 affected countries, Bangladesh also

witnessed fear and panic, stockpiling with overbuying of disinfectant products and essential goods. People continued to move outside and did not follow home isolation or quarantine instructions. Police, army and civil administrative officers were seen beating people on streets if found without masks or moving in groups. Being a predominantly Muslim country, mosques in Bangladesh remained a challenge for the government to close, creating much controversy as people continued to go to mosques to pray. The government announced precautions such as older and sick people should not go to mosques.

Figure 10: A bamboo-fenced lockdown notice in an urban locality in Dhaka city. Photo: Nur Newaz Khan

The government reopened all government offices and industries on 30 May 2020, with strict rules of hygiene and distancing to be maintained (Shammi *et al.*, 2021). However, the lack of coordination among different ministries in the government and business industry created confusion about the timelines of lockdown and reopening, resulting in tremendous suffering among the working class, particularly the readymade garments industry workers. For instance, soon after the lockdown was announced, more than 10 million people left the capital city Dhaka, heading back to their rural homes (Dhaka Tribune, 2020b). However, millions of workers had to travel back and forth to Dhaka city but suffered from a lack of transport when garment factories were reopened in April during the lockdown time (A. Hossain, 2020; Anwar, Nasrullah and Hosen, 2020; Kabir, Maple and Usher, 2021). Many people could not afford physical distance at home as they live in congested housing. Working-class and lower-income people became more vulnerable in lockdown situations as they did not have the economic solvency to stay at home and needed to work for their livelihoods (Ahmed, Rony and Zaman, 2020; Shammi *et al.*, 2020).

Al-Zaman (2020) noted that the prime minister's office had announced different incentive packages of nearly 13 billion USD as preparedness to combat this deadly outbreak and ensure people's safety. The plan included providing protective material for the COVID-19 health workforce, necessary medical supplies and cash transfers to the poor who suffer lacking income in lockdown. However, a surge of nationwide corruption became a significant concern that affected the government's attempts to manage the pandemic and consequently intensified people's suffering. As to the media, there were 218 relief-related incidents of corruption reported between March to June 2020. Many local government representatives and political leaders exploited aid provisions for the general people, including the delivery of fake medical supplies or misuse of the medical budget (Al-Zaman, 2020). Among many problems, the mismanagement and abuse of Personal Protective Equipment (PPE) and medical aids by state officials and private suppliers had severe adverse effects on health workers and the care delivery system that I discuss next.

The misuse of COVID-19 resources, corruption and impacts

On 15 March 2020, the Directorate of General Health Service (DGHS) circulated guidelines suggested by the World Health Organization (WHO) for health professionals and the workforce. This guideline instructs how to take preventive measures with PPE while providing service to COVID-19 affected and suspected patients. Bangladesh health ministry distributed PPEs for the frontline health workforces on duty to combat COVID-19 in government hospitals and health institutes. However, in the last two weeks of March 2020, newspapers, online and social media postings revealed evidence of misuse of PPEs by administrative officers originally sent for COVID-19 dedicated health workers[30]. In the same week, the Prime Minister (PM) warned administrative officers not to use the PPEs allocated for the health workers at the service of COVID-19 patients. Later, the ministry of health announced that the government would fund imports of PPEs from abroad (China mainly), including protective jackets, shoes, goggles and N65 face masks (Bangla Tribune, 2020; The Daily Star, 2020a). In the third week of April, a series of Facebook posts and news media revealed that doctors working in different government hospitals are complaining that they were supplied with fake PPEs that are not safe. Such fake PPEs included cloth-made masks in place of N95 masks, polythene (plastic) bags instead of shoes, regular garments and raincoats as bodysuits instead of the actual protective gown (Ahmed, 2020).

[30] One photograph posted on Facebook by a public service officer revealed several sub-district admin officers wearing PPEs originally sent for health workers who are assigned with COVID-19 services. Several online newspapers published this as news but both the Facebook post and news were removed lately from everywhere. I accessed that news on 28 March 2020 at that are now showing 'page not found'.

Figure 11: Counterfeit PEE received by pubic hospital doctors from the health authority, April 2020. Photos: https://www.banglatribune.com

A private company named JMI Hospital Requisite Manufacturing Limited contracted to import N65 Masks. However, it was revealed that the masks were not original N95 and not the standard quality face masks but were locally produced and supplied (Noman, 2020). The first incident occurred when a public hospital in Dhaka reported receiving no original N95 Masks in a lot labelled 300 pieces of N95 Masks and 500 surgical masks supplied by the government. It was also reported that over 7000 masks were distributed on the first allotment, which also turned out to be fake. The health authority clarified that the suppliers had mistaken the label, and the contractor acknowledged the mistake (Abdullah, 2020b). The scam was suspected of a collaborative involvement of private organisations and high state officials (E. Hossain, 2020). A survey conducted by a newspaper showed that 75% of doctors and 40% of other health workers received PPEs by the third week of April but were not convinced about the quality of those. Meanwhile, by the time I finished my fieldwork around mid-October 2020, nearly 5000 healthcare professionals were infected with COVID-19, with more than 100 physician deaths reported (Dhaka Tribune, 2020a; Razu *et al.*, 2021). In reality, the lack of coordination, mismanagement and corruption among the state departments and authorities, as Al-Zaman correctly points out, resulted in “paralysing the health sector” (Al-Zaman, 2020, p. 1357). Besides these mismanagements, there were surges of misconduct and fraudulent activities in the public and private healthcare sectors. The bureaucrats and government representatives were found connected in capitalising on COVID-19 situations. In what follows, I discuss how different COVID-19 related policies failed to serve the citizens’ needs but served the corporations’ business interests.

Pandemic policy, politics and disaster capitalism

The COVID-19 catastrophe has been providing many angles to analyse the role of governments, policies, and corporations in a health crisis. The concept “disaster capitalism” by Naomi Klein suggests that in case of any disaster, whether it is natural or human-generated, we see economic and political adjustments serving the interests of capitalist corporations at substantial human and environmental costs (Klein, 2007). These responses to disasters are often executed in the name of humanitarian efforts (Schuller and Maldonado, 2016; Pyles, Svistova and Ahn, 2017). In line with this analysis, in what follows, I present evidence to argue that even in crisis time, policy changes, corruption, and supporting private corporations create loopholes in the health and medicine market where people utilise the opportunity created to capitalise over life. In Bangladesh, regarding COVID-19 medical supply for health workers, testing kits, and the inclusion of private providers, we observe a similar phenomenon among state policymakers and health officials during the COVID-19 pandemic crisis.

COVID-19 test kit: Crisis, politics and role of different parties

In the third week of March 2020, the government of Bangladesh revealed that the health authority had around 1,500 COVID-19 test kits and the same number of PPEs in stock. Health officials mentioned that they were expecting more than 10,000 testing kits and the same number of PPE from Singapore by the following two days. They also announced China government’s commitment to Bangladesh to send another 10,000 test kits along with other medical equipment for targeting COVID-19 management (Molla, Al-Masum, 2020). The government relied on the Polymerase Chain Reaction (PCR) machine testing method. In the meantime, a local discovery of cheaper antigen-antibody rapid testing kits drew attention, leading to controversy, politics, and even debates among the scientific community in the country and globally.

Gonoshasthaya Kendra (GK)[31], a non-government health research organisation, came into the centre of the COVID-19 discussion in mid of March 2020 by announcing to support a private company in building a temporary COVID-19 dedicated hospital. However, that initiative was halted on its first attempt due to the local ward commissioner’s veto, showing concern about

[31] Gonoshasthaya Kendra is the first hospital/health centre built during independence war in 1971 to serve the wounded freedom fighters named back in that time as the Bangladesh field hospital founded by Dr Zafrullah Chowdhury and Dr M A Mubin. Later in post independent Bangladesh the name was changed to Gonoshasthaya Kendra which is now operating with over 2500 employee and associated a private university named Gono University based Savar, a downtown in outskirt of Dhaka city. Dr. Zafrullah more renowned for his greatest contribution in forming the country’s first drug policy during 1980s thus made him internationally known figure. He achieved several national and international recognition for his contribution in public health sector in Bangladesh. More information can be accessed at http://gonoshasthayakendra.org/ and https://www.gonoshasthayakendra.com/

COVID-19 infection exposure in the surrounding population (New Age, 2020c). Although the company promised free treatment for corona patients, the plan was dropped after a meeting with government officials; specific reasons for the cancellation remained hazy (Amin and Rahman, 2020). Along with these incidents, in the third week of March, GK also announced that they had developed a cheaper and simple testing kit for early detection of COVID-19 infection. It was a modification of a similar kit their research team had invented for the 2003 SARS virus in China. According to the research team of GK, the kit uses a “Rapid Dot Blot" method (also known as an antigen-antibody test) which takes 15 minutes to detect the infection in a patient’s body. They also announced that each kit would cost Tk.200-250 (A$4.5-5.25), and initially, 100,000 kits would be produced (Hasan and Rahman, 2020). After an inspection of their factory by the drug administration, GK got approval to import parts to develop the kit (Jasim, 2020).

The initial plan was to hand over the kit to the Directorate General of Drug Administration (DGDA), the WHO and the IEDCR for final approval before making it available for mass use. GK unveiled their COVID-19 test kits in late April 2020; however, the DGDA denied accepting the kit, saying it did not follow the protocol of CRO (Contract Research Organisation) evaluation. Eventually, GK handed over the kit to the US Centre for Disease Control and Prevention (CDC) officials at Dhaka and Bangabandhu Sheikh Mujib Medical University (BSMMU) for validation and final approval from the government (Abdullah, 2020a; Bangladesh Post, 2020). After a second trial for external validation, again, GK was refused permission from the health authority as reportedly lacking the required level of accuracy, a verdict provided by the evaluator BSMMU. Government officials also argued that antigen-based rapid test is not proven effective and has not been approved or suggested by WHO (Amin, 2020; New Age, 2020a).

GK revealed that the state health authority warned them of taking legal action accusing them of breaching health policy and rules by running the COVID-19 testing trial in their laboratory (The Daily Star, 2020d). Finally, then, GK had to stop its initiatives. Later in an interview, Dr Zafrullah (the founder of GK) mentioned that CROs are a vehicle of corruption. He also noted that the government denied the approval for their testing kit because of “business motive” and political unwillingness (Palma, 2020). A low-cost testing kit might be less profitable for corporations and not benefit some bureaucrats and ministerial officers. Some also argued that a local kit might hamper economic relations with India and China, reducing import demand (Dhaka Tribune, 2020c). It created massive debates and confusion among doctors and scientists nationally and internationally; clear divisions were visible. One side discussed the limitations of rapid test kits. The others suggested evaluating the kit quickly to manage the

crisis and for greater public health benefits, putting aside the bureaucratic processes or political matters.

Figure 12: Gonoshasthaya-RNA Biotech Limited officials unveiled COVID-19 testing kits and handed them over to CDC and BSMMU officials for final approval. Image: Dhaka Tribune, 25 April 2020

Meanwhile, the government fixed the cost of the COVID-19 test at Tk.3,500 (around A$50) in approved private facilities and Tk.200 (around A$3) in public facilities. An additional charge of Tk.500 (around A$8) is approved for samples to be collected from home. Nevertheless, the number of approved COVID-19 testing facilities remained inadequate. Testing in private hospitals outside of approved ones was costly for many of the population (Cousins, 2020). Worldwide, one of the limitations of the antigen-antibody testing method identified was the lack of comparative accuracy and false outcomes contrasting the PCR testing system (Krüttgen *et al.*, 2021). However, as a low-cost rapid testing method, many countries adopted antigen-antibody testing, reportedly very useful for early screening of COVID-19 among the mass population. In 2020, when we observed the Bangladesh government denying GK's testing kit, some other countries successfully implemented such low-cost testing kits; Senegal is one of the earliest examples (Yeung, 2020). Even WHO published an implementation guideline for health workers in 2020 endorsing the benefits of antigen-antibody test kits (WHO, 2020).

Many developed countries have also adopted the antigen-antibody testing kit as it is cheap and faster, filtering suspected cases for further PCR lab testing (requires a minimum of 24 hours) (Chaimayo *et al.*, 2020). For example, the New South Wales health authority in Australia considers antigen-antibody testing kits "quick and easy" and very useful for the rapid test for early detection of COVID-19[32]. Retail packs of the kits are also made available for customers from November 2021 (Belot, 2021). Such kits, also known as Rapid Antigen Tests (RATs), are being used in schools and public domains to detect COVID-19 infection in Australia (see linkmix.co/9538384). Antigen test kits are now commonly used in many countries as a self-

[32] More information about the announcement can be accessed at https://www.tga.gov.au/COVID-19-rapid-antigen-point-care-and-self-tests

testing method by individuals at home. The scientific researchers also recommend using antigen-antibody test kits as an early detection method. The director of the National Institute of Biomedical Imaging and Bioengineering (NIBIB)[33], part of NIH in the USA, who supported a longitudinal study on COVID-19 diagnostic and test systems (Smith *et al.*, 2021) mentioned,

> "Rapid antigen testing at home, two to three times per week, is a powerful and convenient way for individuals to screen for COVID-19 infection……..With schools and businesses reopening, an individual's risk of infection can change from day to today. Serial antigen testing can help people manage this risk and quickly take action to prevent the spread of the virus." (NIH Releases, 2021)

In general, healthcare policies and implementation in Bangladesh are formulated and controlled by bureaucratic and political actors; often, health experts remain unheard. Despite the global evidence of the benefit of the antigen-antibody testing method, Bangladesh kept banning this in public and private health sectors relying on PCR tests. Regarding the COVID-19 test kits of GK, Dr Zafullah, in his interview in May 2020, mentioned that the testing kit approval was mired in a 'bureaucratic Tangle' (The Business Standard, 2020b), indicating the unnecessary delay by the health authority in taking the right actions in a crisis time. Such context can be understood as a reality where modern biomedicine is 'practised in bureaucracies' (Rosenberg, 1987; Kleinman, 1988). My findings also reinstate what Shah has noted: bureaucracy and hierarchy in the health sector in Bangladesh often delay health service delivery and exclude patients from accessing entitled healthcare, driving them to the private sector and ultimately creating suffering for healthcare seekers (Shah, 2020). The provider's (state health authority) role here determines the services to be provided to healthcare seekers. Physicians in such systems are 'bureaucrats' acting and serving the interest of the authority for their targeted business motive treating patients as 'users, a consumer or instituting's service' (Kleinman, 1997, p. 37).

Islam and colleagues, in their paper, argued that the Bangladesh government had enough time to take precautions as the first COVID-19 case was found nearly three months after the first outbreak in China. The authors concluded that the country failed to take strategies like 'contact tracing, introducing antibody/antigen-based rapid detection kit,……to combat this disease' (M. T. Islam *et al.*, 2020). Such circumstances can be analysed as a politicised ground of disaster capitalism in Klein's argument that in any crisis, the "wish list" of the agents of capitalism gets the priority in governments' plans and implementations of recovery strategies (Klein, 2007). Gordon and Green argued that such ignorance from the state and government in many countries caused the rapid spread of deadly COVID-19, the unnecessary death tolls and suffering of the population as 'state crime' (Gordon and Green, 2021). Bureaucratic

[33] NIBB is a part of NIH and Dr Tromberg leads the RADx Tech program that supported the study.

complexities and corruption among the state officials in Bangladesh created suffering for Coivd-19 patients and deprived citizens of general healthcare rights. The role of Bangladesh state and bureaucracy reiterates Gupta's analysis in India that state bureaucracy in the form of corruption could enact structural violence in everyday life, even in a non-crisis time. The 'ubiquitous bureaucracy' controls poor citizens' lives by regulating access to 'many essential and commonplace goods, from railway tickets to subsidised kerosene' (Gupta, 2012, pp. 32–34). Besides mismanagements and scams over COVID-19 PPEs at the state level, a growing number of incidents of fraudulence in the private health sector have been reported, including misusing government support funds and providing fake COVID-19 test certificates and treatment.

Fake COVID-19 test certificates and treatment in the private sector

During the early COVID-19 incubation, the state health authority of Bangladesh distributed funds among the public and selected private healthcare organisations to provide COVID-19 testing and treatment. In the first week of June 2020, news emerged that law enforcement agencies had raided a private hospital in Dhaka with the accusation of providing fake COVID-19 test reports and charging unfair bills to customers. After several raids, the hospital owner was arrested on 15 July 2020 (The Guardian, 2020). However, questions were raised on how the state health authority signed a contract with a private hospital to operate as a COVID-19 designated institute that did not renew its license for the past six years (Rabbi, 2020a). According to newspaper articles, the same person had been arrested and sentenced several times previously for fraud and embezzling over Tk.100 crores (nearly A$16 million) from people invested in his companies but managed to escape punishment using his power connection and money. Later he became the owner of several groups of industries and regularly appeared as a retired military officer. The person persistently appeared on TV talk shows and social media, representing the ruling party. He was seen in photographs with government and health officials while signing a contract to serve COVID-19 patients. However, state officials denied all his claims associated with the ruling party or government authorities and reported them as 'false claims' (Rabbi, 2020b). The head of the DGHS had to resign and was later charged in this case (Dhaka Tribune, 2020b; New Age, 2020b). As per the press release from the law enforcement agencies and media reports, the accused hospital authority has taken Tk.3,500 per patient for the COVID-19 test instead of providing free services, making more than Tk.3.5 crores (around A$5,59,000) embezzled. They also submitted a bill of a similar amount to the health authority for reimbursement as they were enlisted to get fund support from the government (The Daily Star, 2020c). However, it remains unknown whether the hospital was already reimbursed or not.

Meanwhile, in late June 2020, police arrested four employees of a private organisation enlisted as a government-approved provider to operate COVID-19 tests. This organisation's chairman was a government physician who was also arrested in July 2020 (The Daily Star, 2020b). It was revealed that she used her power and connections in securing enlistment as a government provider to receive funds to provide COVID-19 health services. Her husband, as the director, was running the operations. As reported, the organisation set up 44 sample collection booths in Dhaka and samples were collected from homes for the COVID-19 test. However, they were trashing the test samples and providing reports to the patients without testing. They had printed random 'negative' or 'positive' on COVID-19 test certificates and issued them to the customers but charged 5000 to 8600 (around A$80 to A$138.5). By the time this fraudulence was revealed, the organisation had issued 15000 fake COVID-19 test reports (Al-Zaman, 2020; The Daily Prothom Alo, 2020). Such misappropriation of government funds and capitalising over health crises were common throughout this COVID-19 pandemic. We observed regular news of legal actions against such incidents, including fake COVID-19 tests, counterfeit medicines and sales of COVID-19 vaccines (initially allocated for government approved facilities) in the market (see for examples linkmix.co/6495495).

During fieldwork, I met Habib, a television investigative journalist in Dhaka. He shared his work experience while collaborating with the special task force to cover real-time investigation of malpractice in health service as part of the TV program. Habib previously revealed some significant malpractices and corruption regarding the 'heart-ring' (vascular ring surgery) business and medical equipment for tests and diagnosis; those incidents were telecasted on the TV channel he works. Concerning this research, Habib shared his experience with a district-level private hospital owner outside Dhaka. According to his news report, the hospital misappropriated COVID-19 treatment and charged higher prices to patients when the treatment should be free. The hospital authority had also submitted a nearly six crore (nearly A$1 million) bill to the government for reimbursement. As Habib mentioned, he was offered a bribe (from Tk.5 to Tk.7 lakh worth around A$8 to A$12 thousand) by the hospital owner and requested not to reveal the news. As Habib said, he refused to take the bribe and covered that news, but the owner was able to manage all other news media to hide that. Habib explained the reasons this way,

> "Recently, a secret meeting was held among the ministries, private medical associations, and occupational groups. After that meeting, it was announced that from now on, sudden raids or investigations would not be allowed in hospitals without prior notification. We wonder if this is the right time to restrict investigation when many hospitals do not meet all requirements, even during this COVID-19 crisis. Can you imagine a minister questioning such an investigation by saying, 'why do hospitals need to be raided? There are no terrorists in hospitals; there

> are doctors and nurses?' So you can see how such news and incidents are not coming out to the general public."

Habib also explained how health business networks, private corporations and state health officials are in the same loop of a collaborative circle of corruption that shares profits over people's life and healthcare:

> "The fact is that they both (authorities and business corporations) are allies for mutual benefits. In a meeting with journalists, one former minister said that the health sector is controlled by business/mafia, syndicate whatever you say, and ministers cannot do anything here. They even influence elections like who will be a secretary or minister; they control everything!"

The incident that Habib mentioned remained underreported in the media. The DGHS said that the bill would not be honoured, but the hospital had already withdrawn an amount of Tk.5.41 crores (approx. A$8,63,325) bill by that time using their 'power relation', although the hospital's practising license was not renewed since 2018[34] (Molla, 2020). Habib mentioned that such incidents are only revealed in the news when a more significant amount of money is involved, and many similar incidents remain under-reported. He further explained,

> "There are many incidents of such corruption and even more active during this COVID-19 era. However, they remain underreported because either they are hidden after these arrests (two cases mentioned above) or managed by authorities by bribing (including police, journalist and health officials."

Many hospitals were fined and warned for providing COVID-19 tests without approval or faking tests across the country during my fieldwork until February 2021. Meanwhile, another situation drew attention; the scientific debate on treatment and medicine used to cure the COVID-19 infection.

Ivermectin for COVID-19 treatment: Contested science, global debate and corporate interest

In May 2020, a medical team in a private Medical College Hospital in Dhaka claimed that their trial among 60 patients showed that a combination of the antiparasitic drug Ivermectin and the antibiotic Doxycycline could prevent COVID-19 (The Financial Express, 2020). When I attempted an online search, I found that in April 2020, a research team in Australia revealed that their study showed Ivermectin effectively cleared the COVID-19 virus by almost 93% within 48 hours. However, they warned not to go for mass use and self-medication of Ivermectin

[34] The incident of lacking license renewal for the hospital is another incident of corruption and political extortion. As per a local lawyer with whom I had an informal discussion, the hospital's license renewal was stopped by the local parliament member who wanted to be a member of the hospital trust but refused by the hospital owners/company.

before final approval to prevent misuse as it is also popularly used for animal diseases (Monash Biomedicine Discovery Institute, 2020; Science Daily, 2020; Jittamala *et al.*, 2021). Interestingly, a WHO health bulletin in 2004 noted that though Ivermectin is generally known as a medicine for animals but has high potential and is safe to use for the human body on a broader scale (Speare and Durrheim, 2004). As scholars noted, Ivermectin is a drug approved by the American Food and Drug Administration (FDA) that previously showed efficacy against viruses, including HIV, Dengue, Influenza, and Zika (Caly *et al.*, 2020).

Throughout April 2020, trials and studies were initiated in many countries to measure the safety and efficacy of Ivermectin in the human body against COVID-19 (see for examples linkmix.co/6524427). The Bangladesh part of such an attempt also claimed that combined medication of Ivermectin and antibiotics reduced COVID-19 symptoms by 50% within three days and a complete cure within four to five days with no side effects (The Financial Express, 2020). Later, more extensive trial studies also supported the claim that Ivermectin is effective at the early COVID-19 infection stage (Alam *et al.*, 2020; Ahmed *et al.*, 2021; Mahmud *et al.*, 2021). Albeit this treatment is yet to be approved by country governments, many scientific studies and clinical trials[35] across the world claim the application of Ivermectin combined with other drugs can save lives by preventing COVID-19 transmission in the human body (Vallejos *et al.*, 2020; Chaccour *et al.*, 2021; Formiga *et al.*, 2021; Jittamala *et al.*, 2021; Shukla and Misra, 2021).

Countries have tested several other drugs to find a cure for COVID-19. In the early stage of 2020, Hydroxychloroquine, popularly known as a malaria drug, was noted as effective in preventing the COVID-19 virus in the human body and reducing hospitalisation but did not attract pharmaceutical interest as it showed less efficacy (Ghazy *et al.*, 2020; NIH, 2020; Omrani *et al.*, 2020). During my fieldwork, I observed both Favipiravir tablets and Remdesivir injections as treatment were popularly used for COVID-19 treatment. It is important to note that untill now, scientific studies and trials on these two medicines have shown no significant efficacy in preventing non-severe COVID-19 infection compared to Ivermectin results (Wang *et al.*, 2020; Chamary, 2021; Hassanipour *et al.*, 2021; Özlüşen *et al.*, 2021). Despite the claimed success of Ivermectin in preventing early COVID-19 transmission in the body (Alam *et al.*, 2020; Caly *et al.*, 2020; Ahmed *et al.*, 2021), this drug was not approved by officials and governments as a formal COVID-19 drug. However, both Favipiravir and Remdesivir are frequently used at exorbitant prices in the market. I observed during my fieldwork that the price of Doxycycline and Ivermectin also hiked up, at least five times higher in retail shops. However, as per pharmaceutical representatives and marketing managers in this research, the

[35] See https://c19ivermectin.com for trial updates around the world

production cost of these two medicines did not change significantly. Both drugs are exceptionally cheap compared to Favipiravir and Remdesivir. For instance, the unit price for Favipiravir is 20 to 40 times higher than Ivermectin, and Remdesivir injection is 200 to 550 times higher in the Bangladesh market (see linkmix.co/6574231 for comparative unit prices). Such ignorance of Ivermectin as a low-cost cure is best described as corporate pharmaceutical interests toward a more profitable business.

Charges for COVID-19 treatment in private hospitals are another example of capitalising tendencies during this pandemic. The Bangladesh health ministry announced COVID-19 treatment would be free of cost in government-designated hospitals. However, private hospitals charge as per their own rules as the regulations for the healthcare cost of COVID-19 treatment were yet to be formulated and implemented. Some of my research participants were forced to purchase oxygen for a very high price, and some of them could not get that even when they were ready to pay 10-15 times higher. I contacted some private hospitals' admission desks to check the costs for COVID-19 patients for a relative in June 2020. I was asked to pay Tk.1 lakh (more than A$1,600) in advance in a private hospital for a bed with no nursing service. Many people could not afford such expensive treatment. Even those who manage healthcare for the patients were left with either massive medical bills and loans or livelihood losses (BD News24, 2021). During this COVID-19 pandemic, all of the leading pharmaceutical companies in Bangladesh acted swiftly to produce every case of new drug suggested and recommended by global (mainly USA) scientists. Following the trends, companies have been switching from one to another drug production to catch the concurrent sales market. Though the actual investment amount remains unknown, the companies likely invested in larger quantities in every case. Most often, their investment had to be halted for new drugs that were disavowed by the scientific community facing failed manufacturing and marketing.

In all aspects of the COVID-19 pandemic and healthcare, what we observe in Bangladesh is a common scenario of disaster capitalism; changes in the health policy and medicine market serve capitalist interests and profits rather than the population's wellbeing. Ignoring the local affordable antigen COVID-19 test kit and cheaper treatment, the Bangladesh government overlooked the public health urgency and relied on expensive medicines serving pharmaceutical interests and mutual benefits for state officials. Moreover, such changes in COVID-19 combatting policies could not be challenged by citizens or experts due to lockdown measures that gave the government scope to bypass public consultation and enhance free-market policies in collaboration with private corporations (Balamayuran, 2020). Analytically the COVID-19 context in Bangladesh reconfirms arguments in anthropological studies of disasters explaining that catastrophic events initiate significant policy changes and economic

restructuring (Davis, 1998; Hoffman and Oliver-Smith, 1999; Scheper-Hughes, 2005). Such changes distinctively act as 'instrumentality of catastrophes' supporting transnational capitalist 'elite groups' to pursue their business motives (Schuller and Maldonado, 2016, p. 62).

For Naomi Klein, disaster brings different shocks to the affected; the original disaster is the first shock with devastating outcomes and suffering for people. However, she argued the states' disaster recovery policies and economic adjustments. Such 'shock therapies' only benefit bureaucrats and private corporations, leading to a third shock accompanied by further suffering for actual affected people or citizens (Klein, 2007; Balamayuran, 2020). As I have analysed, the COVID-19 policies and interventions in Bangladesh as 'shock therapy' to combat health crises appeared to be further 'shock' that left citizens suffering more than the original disaster; the contagious COVID-19 virus. Besides all these irregularities in health service, the price of infection prevention and hygiene products went very high at the retail level, including the prices of masks and other PPEs, antiseptics, sanitiser, and antibiotics. In the next section, I present how the retail pharmacies and unauthorised daktar took opportunities to 'capitalise', yet, compared to formal doctors, they played a crucial contributory role as healthcare providers for local communities during the COVID-19 pandemic.

COVID-19 fear, the role of formal doctors and pharmacy daktars

Like many other COVID-19 affected countries, as scholars noted, Bangladesh state did not have a necessary health sectoral policy and statutory arrangements to combat COVID-19 (Shammi *et al.*, 2021). The country experienced a total collapse in the health sector, including the regular, emergency and primary healthcare services, during the entire year of 2020, and the country is still struggling. Doctors and other health professionals at the frontline struggled to provide treatment to COVID-19 patients due to a lack of adequate and appropriate medical equipment, an insufficient health workforce and a lack of coordination from the health authority (S. Islam *et al.*, 2020). As fears spread, most private healthcare facilities closed across the country (Shammi *et al.*, 2020). The impact of COVID-19 was visible in the primary healthcare market even before the pandemic hit the country, as we observed in the stocking of face masks and price hikes at the wholesale and retail levels. In February 2020, during the observation session and interview with pharmacy daktar Mustahidur in Dhaka, I had an informal conversation with Ratan, a pharmaceutical promotion officer (PMO) visiting the pharmacy to deliver and take medicine orders. He shared his work experience revealing how prices of masks have gone up due to high demand as news of the COVID-19 outbreak in China, and other countries had spread. Here is an excerpt of the conversation:

> Researcher: How confident are you about the quality of these face masks?

> Ratan: Yes, it definitely works. Isn't it better to have something as protection rather than nothing?
> Researcher: I bought one for Tk.25 that I originally was Tk.5 only! Is it right that now everyone (pharmacy) sells it at a higher price? It is five times higher now, and we expect it to be higher.
> Ratan: Yes, like he (referring to the pharmacy owner) told me he would need face masks. I have only one carton of that at the moment.
> Researcher: From which company?
> Ratan: Lalbagh Distribution. Then I told him that it would cost 120 taka per box and the original cost was Tk.7. I told him there is no supply right now. He told me that this was very expensive and then he decided not to buy them. Later he asked me to give him 15 boxes of masks. The company was not able to provide that number of masks. Then I gave him ten boxes. He sold those masks instantly. After like 2 hours, the price hiked up to Tk.200 per box on that day!
> Researcher: How many masks are there in the box?
> Ratan: 50 masks in a box, and now it costs Tk.700 like I am delivering today.
> Researcher: Now it costs Tk.700! How much time did it take to mark-up that much?
> Ratan: About 15 days.
> Researcher: So quickly! What is the reason for it?
> Ratan: That is because of the Coronavirus news

My exchange with Ratan shows how prices for PPE products were hiked up due to COVID-19 fear in the country even before the first case was detected in March 2020. Mustahidur, the pharmacy owner, also mentioned that he could not find the supply of face masks even if he offered Tk.1,000 for a box. Later in different locations, I found a box of face masks sold for Tk.2,000 (26.5 times higher than the regular price). The unit price at the retail level used to be Tk.5, which was being sold for Tk.50 (10 times higher) during my fieldwork. After March 2020, there was evidence of many counterfeit PEE products in the market with a higher price, including sanitiser, face masks, protective gowns, face shields, etc. In particular, the price of hand sanitiser and disinfectants had gone high. Pharmaceutical companies took this opportunity to launch new disinfectant products like alcohol rub and disinfectant sprays usually sold for clinical settings but became available in retail pharmacies during this pandemic. Demand and price for vitamin supplements, specifically Vitamin C and D, also went up despite their production cost remaining the same. It became common for retail pharmacy owners/operators/practitioners to stock medicines and medical products related to COVID-19 and take the opportunity to profit.

Formal doctors who used to practice in private hospitals, small clinics and retail pharmacies stopped their practice for several months since March 2020. Closure notices hung in many healthcare facilities, including private chambers, retail pharmacies, and hospitals/clinics. Many doctors in public hospitals denied service or remained absent; in a few cases, suspension from duty was reported. In their article, Swazo and colleagues argue that formal doctors' responses in the COVID-19 crisis appeared to be a moral and ethical dilemma between 'duty to treat' and

'right to refrain' (Swazo, Talukder and Ahsan, 2020). It was a complex situation for physicians facing challenges and taking life-risk to serve patients in hospitals without proper PEE supplied by the authorities. Under such circumstances, the question remains as to who then served the community people in their everyday healthcare needs during the COVID-19 pandemic when formal doctors stopped serving people?

Figure 13: A pharmacy operator serving a customer maintaining the social distance rules during early COVID-19 days in a rural district in Bangladesh. Photo: supplied by a research participant reportedly collected from www.Facebook.com.

Scholars around the world have noted the ways community pharmacists of all types have served as the frontline healthcare providers in the fight against different pandemics such as Influenza, Swine Flu, Ebola and the corona family viruses like SARS-CoV and MERS-CoV in the past (Hajjar and McIntosh, 2010; Raven, Wurie and Witter, 2018; Yang *et al.*, 2020). However, the role of retail pharmacy operators is not the same across cultures and is not well structured in many countries. For instance, in Bangladesh, a comprehensive formal hospital pharmacy system in the public and private sectors is yet to be established, and so is community pharmacy management at the retail level. Pharmacy daktars in my research described two factors that influenced the continuation of their service during the COVID-19 pandemic. The first factor is that pharmacy daktars and owners did not have the luxury to close their business in the early months of the lockdown[36] due to COVID-19, as the pharmacy shop is the primary source of income for their family/household.

[36] Later the government announced that drug and medicine shops will remain open but need to follow health and safety guidelines instructed by the health authorities.

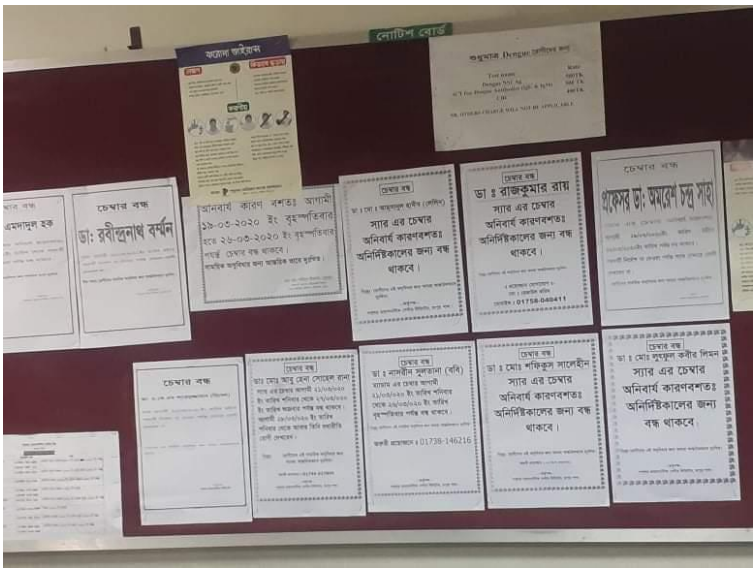


Figure 14: The notice board in a private clinic is filled with the announcement of chamber closure of formal biomedical doctors for an unknown time. This is one example of the healthcare situation in Bangladesh during the early COVID-19 period across the country. Photo: Nur Newaz khan

Retail pharmacies in my research entailed one or two assistants from the same family or were hired workers in most cases. One of the pharmacy owners/daktars summarised the pandemic related condition of his business, saying, “I and many others like me do not have options. Whether risky or not, we (family) cannot live if I close my shop or stop serving customers or visiting patients; it is my only business to earn.” On another occasion, one pharmacy daktar detailed the contribution of pharmacy owners/daktars during the pandemic like this,

> “…..it is us (pharmacy daktar/provider) who served the community in this difficult time with risk, and you have seen all the MBBS doctors stop practice and disappear. We took the risk and continued our services. Who should you think has more responsibilities here? Formal doctors must have more than us, we are not authorised, but we served and still serving better than them (registered doctors) from the beginning of this coronavirus. As you can see, this is even more risk for us because we cannot afford social distance or take protective measures always in such congested space and crowd in such a tiny shop.”

The second factor why pharmacy daktar continued their services during the Coronavirus crisis is that they remain easier to access for community people who might not be going to public healthcare settings to avoid crowded outdoor services due to fear of contamination that emerged during the COVID-19 pandemic time (Ahmed *et al.*, 2020; Hess *et al.*, 2020). Although, there was also the risk of infection for pharmacy daktars because they work in proximity to the care seekers. My ethnographic findings clearly show that pharmacy daktars remained the most accessible, reliable and often the only source of primary healthcare for community people during the whole Covid-19 era despite a high risk of contamination as front line health service and medicine providers (Ashiru-Oredope *et al.*, 2020; Dzingirai *et al.*, 2020).

Figure 15: A child is served with a nebulizer by a pharmacy daktar in a retail pharmacy during the COVID-19 lockdown time in a suburban location in Dhaka. Photo: Nur Newaz Khan

As I observed, pharmacy daktars, on many occasions, remained the only available healthcare points for primary and regular common illnesses regardless of location during the first few months of the COVID-19 outbreak. This COVID-19 related health crisis also reveals the significance of retail pharmacies and pharmacy daktars for the community healthcare seekers as first-hand healthcare providers, thusly supporting the root level of primary healthcare delivery during the collapse of mainstream healthcare structure in Bangladesh.

Conclusion

As I have detailed in this chapter, Bangladesh faced the most challenging time in combatting the COVID-19 pandemic in managing the nation's healthcare delivery system. Rumours and misinformation, including religious scripting, interpretations, and speculative theories, significantly propagated knowledge, attitudes, and practices about the COVID-19 virus to the detriment of individuals, proper healthcare, and adequate functioning of the healthcare system. Economic vulnerabilities forced low-income people to ignore risks associated with the COVID-19 related virus and breach lockdown rules without maintaining health guidelines administered by the authorities. Fear of infection and social stigma also forced caregivers to deny services to care seekers, even those with non-COVID-19 and general healthcare needs. Many caregivers abandoned their work on suspicion of infection. As discussed above, corruption and mismanagement at the state level prolonged suffering among people in terms of economic and healthcare needs leading to many casualties even without essential care. The state bureaucrats backed up the misuse of state budgets and manipulation in the private sector, indicating the state's favour to the profit-seeking big corporations during a health disaster. Healthcare practitioners and workers at all levels confronted tremendous challenges in

maintaining their regular work and providing healthcare services. The role of formal physicians was questioned on the ground of morality as they stopped practising or providing service out of fear during early COVID-19 incubation. In this context, pharmacy daktars, despite their unapproved status, represented ‘practitioners at doorsteps’, close to the community, which persisted with their usual significant contribution to primary healthcare during the COVID-19 pandemic health crisis. However, despite their overall positive role, many pharmacy daktars also acted to maximise their profit during the crisis by overpricing urgent medicines and hygiene products or selling counterfeit medicines during the COVID-19 pandemic. Along this line, then, while the role of pharmacy daktars is generally perceived as contributory and affordable, some activities of pharmacy daktars for profit or to impress their patients can result in unintended health consequences. Formal physicians perceive pharmacy daktars’ practice of biomedicine outside of their formal knowledge and certification as harmful to patients. Pharmacy daktars’ connection with pharmaceutical company representatives and diagnostic centres signifies mutual interests that often increase healthcare seekers’ health costs. These connections reveal the local level commercialisation at the local entrepreneurs’ scale. In the next chapter, I draw from my ethnography to analyse how the activities of unauthorised biomedical pharmacy daktar can produce unanticipated outcomes in primary healthcare.

CHAPTER FOUR: UNINTENDED OUTCOMES OF ACTIVITIES BY UNAUTHORISED PHARMACY DAKTARS

Monju is a 42-year-old man who lives in western Mirpur in Dhaka city. After hearing about his medical experience in the group discussion, I requested an in-depth interview with him which he agreed to. He shared his experience of 'bad luck' over the past three years of a medical encounter with a pharmacy daktar. He was a farmer in his village before migrating to Dhaka in 2015, where he took up a few jobs for a living, starting as a day labourer, shop assistant, and rickshaw puller. Monju had been suffering from recurring gastric-related chest pain for six years when I spoke with him. He used to take Ranitidine (a proton pump inhibitor medicine for acid influx management) thrice a day suggested by a pharmacy daktar in the village. He had to change the medication as the Ranitidine brand was banned in the market by the state authority due to side effects, and he started using Locetil 40 mg (Omeprazole) over the last three years. Since he moved to Dhaka, he started receiving treatment for his abdominal pain, suspected as caused by gastric by a local pharmacy in a suburban area in Dhaka. The pain became severe, and Monju developed urine irregularities and abdominal pain. He visited doctors in a government hospital a couple of times. The doctor suggested doing some tests, including checking if his kidneys were functioning well. Since the tests were expensive for him, he did not do those. He was also suspicious about the necessity of many tests suggested by the physician. He decided to consult the pharmacy daktar for suggestions. The pharmacy daktar he consulted prescribed further medication for his urine issue and pain. For a few weeks, Monju felt better and did not do those referred tests recommended by the pharmacy daktar as 'not necessary'. He continued to take medicines prescribed gastric medicines and painkillers in case of minor pain by pharmacy daktar. However, after a month, his abdominal pain returned, and due to its severity, he had to stop rickshaw pulling work. This time, the pharmacy daktar suspected appendicitis, told him he might need surgery, and tried some other medicines. For over two years, the pharmacy daktar experimented with several medications (he could not recall all names) to treat his conditions. Still, Monju only found himself with more pain and newly added skin rashes. The pharmacy daktar diagnosed the skin condition as eczema. Monju again tried to consult a registered doctor in a private clinic. He had done blood tests and ultrasound imaging of his lower abdomen. He was diagnosed with kidney stones. Hearing his treatment story, the doctor also explained that his gastrological conditions did not require overdoses of medicines he used to take for the last few years. His smoking habits and insufficient water consumption caused pain in his kidneys. The doctor, as he described, literally scolded him for continuing with "quackery" treatments from pharmacy daktar and ignoring the prescribed tests before, which led to his worsened conditions, including skin rashes. The doctor referred him to

a nephrologist (kidney specialist) and warned him that this could lead to severe skin allergy spreading to the whole body; he might need dialysis, or kidney failure could occur otherwise. Monju felt helpless, realising the pharmacy daktar was not skilled enough, and the amount of money he paid him in two years could have been more than enough for his tests or recovery if he had been following the guidance of a formal doctor. He is now in debt as he borrowed money on interest for his treatment. Monju is now on three types of medication and cannot work for long, and now he works as an assistant in a poultry shop (selling broilers). Since he struggled to work, his wife started working as a housemaid to feed five family members.

The above case is an example of how the activities and practices of unauthorised and unskilled pharmacy daktars can cause suffering and severe consequences for healthcare seekers. The role of pharmacy daktars as unauthorised biomedical practitioners remains a contested issue and is at the centre of the debate regarding the state-medical authority and legality questions. In this thesis, I consider this matter against the reality of pharmacy daktars' practices in everyday cultural-economic life. The existing literature has two sides to articulating the effectiveness and health outcomes associated with pharmacy daktars' roles. On one side, although presented as 'village doctors' (VDs), public health and social science studies tend to represent retail pharmacy daktars as contributory and complementary to the mainstream healthcare delivery system and recommend their ongoing training and supervision (Bhuiya, 2009; Mahmood *et al.*, 2010; Ahmed *et al.*, 2011; Bloom *et al.*, 2011; Khan *et al.*, 2015; Rakib *et al.*, 2015; Billah *et al.*, 2018; Hanifi *et al.*, 2020). On the other side, biomedical studies tend to focus on the negative impacts of unauthorised and 'unethical' practices in retail pharmacies, such as the unregulated dispensing of drugs and 'irrational' use of antibiotics with 'floating' (random verbal prescription by practitioners and dispensed on patient's request) and unapproved prescriptions (Chowdhury and Alam, 2008; Kotwani *et al.*, 2012; Alfadl, Hassali and Ibrahim, 2013; Barker *et al.*, 2017; Saha and Hossain, 2017; Jakaria *et al.*, 2021). Shah has noted that although village doctors (VDs) have been highly trusted by their clients for a long time, they often abuse 'this trust by recommending unnecessary trial treatments that have health risks and added costs for patients' (Shah, 2020, pp. 151, 197). However, there is a lack of further examples and deeper analysis of associated risk patterns or consequences of such experimental trials by pharmacy daktars.

Healthcare seekers in my research reported that although the intention is good, many pharmacy daktars perform risky experiments and medication based on assumptions that go beyond their knowledge as they try to impress the patients. Along with formal physicians, pharmacy daktars and operators also prescribe and dispense many banned medicines. Driven by such a lead, I want to explore both sides of the coin from a holistic perspective. Hence, in

this chapter, I present the consequences of different activities of pharmacy daktars perceived as having negative impacts on health costs and choices. I discuss three significant aspects of such activities and impacts: 1) patterns of prescriptions and writing competency, 2) self-medication and unregulated drug dispensing, and 3) referral connections with formal private providers. The method of prescribing and dispensing prescription medications like antibiotics and antidepressants without authorisation are significant problems reported in studies. I focus on local cultural innovation of prescription and prescribing practices that lack legal authorisation to provide a prescription or 'appropriate' knowledge to write one. In line with the literature, I also discuss how the relationship between the pharmacy daktar, formal doctors and private pathology/diagnostic centres work as a referral network sharing mutual benefits to increase the health cost that patients have to pay.

I use Robert Merton's concept of 'unintended and unanticipated outcomes' (Merton, 1936) and argue that although unauthorised pharmacy daktars play positive roles in primary health services, their unskilled and unregulated activities often bring ramifications to community health and medicine use. Engaging with Zwart's analysis of Merton's theory (Zwart, 2015), I also argue that the consequences of unauthorised biomedical activities by pharmacy daktar may be unintended but not totally unanticipated, as all their counterparts in healthcare are aware of such adverse effects. Under such contrasting positioning, the question remains how do pharmacy daktar work as practitioners and survive without authorisation in the local health market despite sometimes generating adverse outcomes in the local community? To understand that, finally, I analyse the moral economy of health in local culture providing resilience to unauthorised practices that place health cost and practitioners' moral position at the centre rather than quality or authenticity.

Prescription: provisions, cultural innovations and practices

A prescription is the central element of any medical encounter and interaction between practitioner and patient, directed by a diagnosis and treatment regime. Prescription means a written instruction by a medical practitioner to a patient authorising a medicine or treatment to be dispensed by a registered dispenser/pharmacist. The convention for the minimum information required for a prescription varies across cultures, but a proper prescription should include some basic information: name, address, the telephone of the prescriber; date, generic name of the drug; strength and dosage form, total amount; labelled instructions and warnings, and the name, address, age of the patient, and the signature or initials of the prescriber (WHO,

1994b). The examples[37] below illustrate the inappropriate and appropriate ways of writing a prescription per the WHO description.

Examples of inappropriate and appropriate

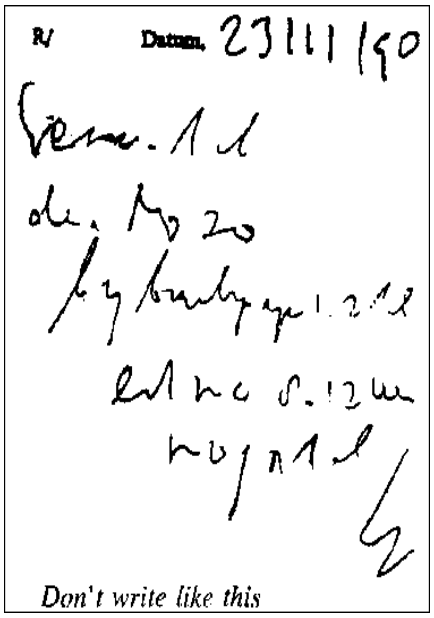


IMAGE 1: INAPPROPRIATE PRESCRIPTION

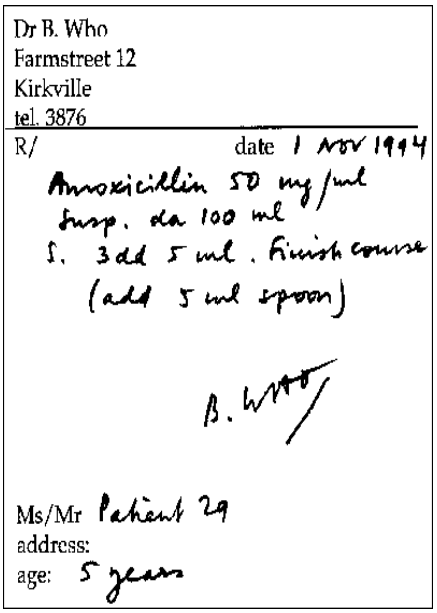


IMAGE 2: APPROPRIATE PRESCRIPTION

Figure 16 : Examples of inappropriate and appropriate biomedical prescriptions.
Source : World Health Organization (1994)

The discussion of the "ideal" modes of prescription in practice is significant because in many contexts (especially in developing countries), prescriptions may not meet all the criteria of sufficient information required. Even if the prescription fulfils all required criteria, the prescriber could be unauthorised. Consistent with the literature, this research also reveals that prescription often is innovated in local cultural contexts, such as written on a small piece of paper or through a verbal conversation without written scripts at all (Kafle *et al.*, 2005; Akande and Ologe, 2007; Chowdhury *et al.*, 2007; Chowdhury and Alam, 2008; Smith, 2009; Hariharan *et al.*, 2009; Ahmed *et al.*, 2017; Barker *et al.*, 2017; Rousham *et al.*, 2019; Matin *et al.*, 2020; Ayele *et al.*, 2021). The most common type of prescription is when patients request medicine or repeat medication from a pharmacy without supervision or consultation of an authorised physician, also defined as self-medication. Such prescribing patterns are 'inappropriate' in medical and legal terms, regardless of type. However, no study has found revealing examples or evidence of different kinds of prescriptions in place and used by unauthorised biomedical practitioners in retail pharmacies. In what follows, I illustrate such patterns of prescription

[37] World Health Organization (1994) 'Guide to good prescribing: a practical manual', Guide *to good prescribing: a practical manual*: World Health Organization.

communication and their impact on health-seeking behaviour, expenditure and perceived adverse effects.

Whereas studies have reported unauthorised prescriptions from retail pharmacy owners, they have less mentioned 'inappropriate' and illegitimate prescriptions by non-medical providers or formal healthcare providers (not approved prescribers). By contrast, in my fieldwork observations, I found that medical assistants and non-medical health staff in public healthcare facilities in Bangladesh also practice as a prescriber in both their workplace and retail pharmacies (see Chapter One for detailed discussion). The commonly accepted criteria of a prescriber suggested by the World Health Organization (WHO) are:

> "The prescriber is not always a doctor but can also be a paramedical worker, such as a medical assistant, a midwife or a nurse. The dispenser is not always a pharmacist but can be a pharmacy technician, an assistant or a nurse." (WHO, 1994b).

However, as I have discussed in Chapter One, the policy to recognise a prescriber remains unclear in Bangladesh. Only registered MBBS practitioners are identified as 'doctors' and authorised to prescribe, but diplomas and short training holders in public health facilities are also given the authority to dispense antibiotics (MOHFW, 2016). It is ubiquitous that Sub Assistant Community Medical Officers (SACMOs) in Union health sub-centres (with a 3-year diploma) prescribe in written form but do not use the 'Dr' title in the prescription. The Community Healthcare Providers (CHCPs) at the Community Clinics (CCs) also consult patients and dispense medicines. As per the State health policy, SACMOs are healthcare providers as medical assistants but are non-confirmed about their prescribing authority. However, SACMOs and other staff, such as dispensers/pharmacists or CHCPs, also practice in retail pharmacies and provide prescriptions (see Chapter One for more). Many use/write the 'Dr' title on those prescriptions. It is unsurprising then that such clarity gaps in the policy regarding the recognition of authorised prescribers lead to the arbitrary use of 'authority' by unqualified public health staff and other unauthorised prescribers like pharmacy daktars.

'Inappropriate' prescription by formal providers

Unauthorised prescription is not only practised by the pharmacy daktar. Health staff in government facilities and formal doctors also provide verbal and 'inappropriate' prescriptions. I encountered an example of a prescription supplied by a dispensary in charge who also practices in four different retail pharmacies in a union health sub-centre (see Chapter One). The below photo shows a white page (from a notebook gifted by a pharmaceutical company in this case) where the dispenser used the official stamp seal of the health centre and his designation to make this more 'formal' and trustworthy to the healthcare seeker.

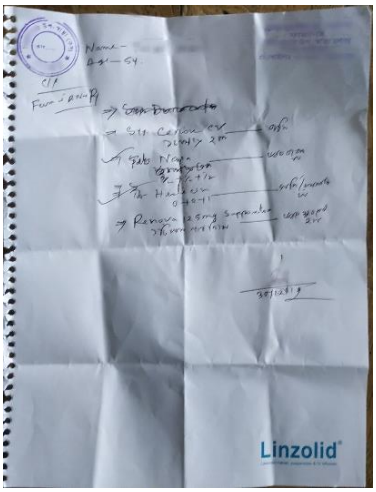
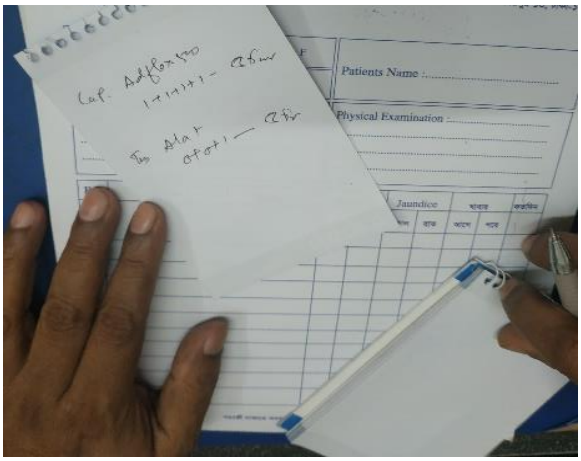


Figure 17: A white paper with an official stamp and signature as a prescription provided by a dispensary operator in a government Union Health Sub-Centre. Photo: Nur Newaz Khan

A white paper is the most common pattern of floating prescription practised by both authorised and unauthorised biomedical practitioners as the informal prescribing culture. Even formal doctors respond to healthcare seekers' requests informally and write medicine names on pieces of paper as prescriptions.



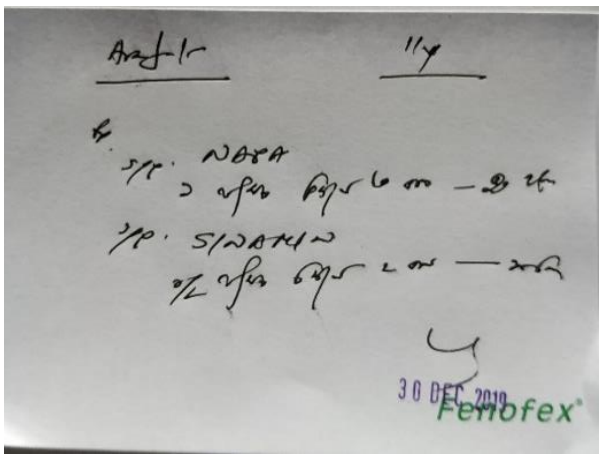


Figure 18: Piece of paper as prescription. Photo: Nur Newaz Khan

Dr Parvej is a registered MBBS doctor in public service in a divisional medical college hospital. He comes home (the rural site in this research) every weekend. As he told me, every weekend when he arrives home finds people coming from different neighbouring villages for a free consultation from him. He offers them consultation free of cost and writes medicine names on paper. He considers this a culturally accepted form of prescribing from his moral obligation to serve as a doctor. He gave an example,

> "Every Thursday night, I come home, and you know what, I have to consult patients at home in the morning. Even when I leave the mosque in the local market

> after Friday prayer, people ask me to check their health or suggest medicine. I try to respond to them and often write medicine names on whatever paper I can get, they sometimes bring a piece of paper from grocery stores, and I write that as a prescription."

Pharmacy daktars are also aware of an 'appropriate' prescription format. They print their own prescription pad, or pharmaceutical companies print for them as a gift. They meet all the criteria of a standard prescription detailing their credentials, just like formal doctors.

'Appropriate' but unauthorised prescriptions by pharmacy daktars

Among the pharmacy daktars I met, who provide written prescriptions, they followed all the criteria of an 'appropriate' or standard prescription expected from an MBBS doctor. The prescriptions written on pre-formatted and computer-generated paper make them identical to a formally accepted format and difficult to differentiate. As the examples below illustrate, the main distinguishing feature between the two papers is in the section on practitioner's detail at the top of the page. This section indicates if practitioners have the authorised qualification and registration to practice. For the pharmacy daktar, this detail is filled with information about the shop name, address, qualifications, short courses as credentials, and practice schedule, just like an approved formal prescription looks. This emulation in formatting appears to be strategic and a means by the unauthorised pharmacy daktar to impress their customers and to be seen as a 'formal' prescriber. Below I present four examples of prescriptions to explain that. The first two prescriptions (one is typed and printed with a computer, and the other is handwritten) are provided by formal and registered practitioners, and the second two are by unauthorised pharmacy daktars. All four prescriptions are appropriately written and delivered in terms of required content, meeting the criteria for an 'appropriate' prescription suggested by WHO, as mentioned earlier.

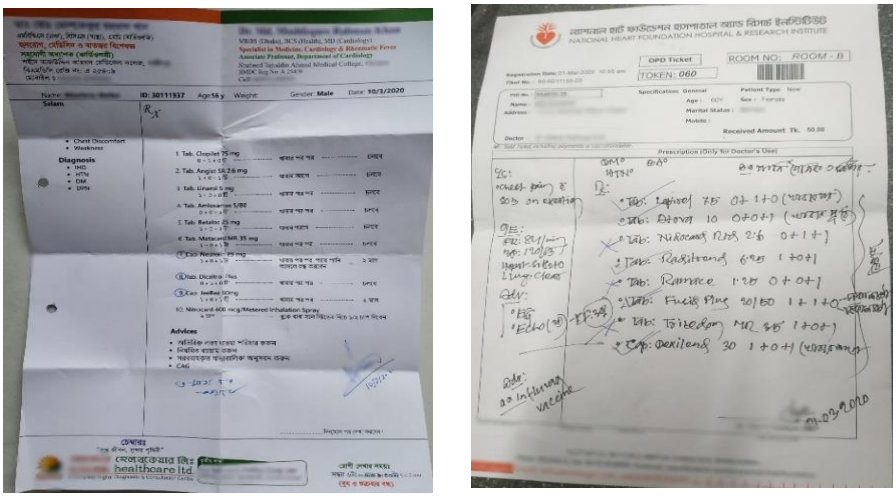


Figure 19: Two formal prescriptions from authorised private biomedical practitioners. Photo: Nur Newaz Khan

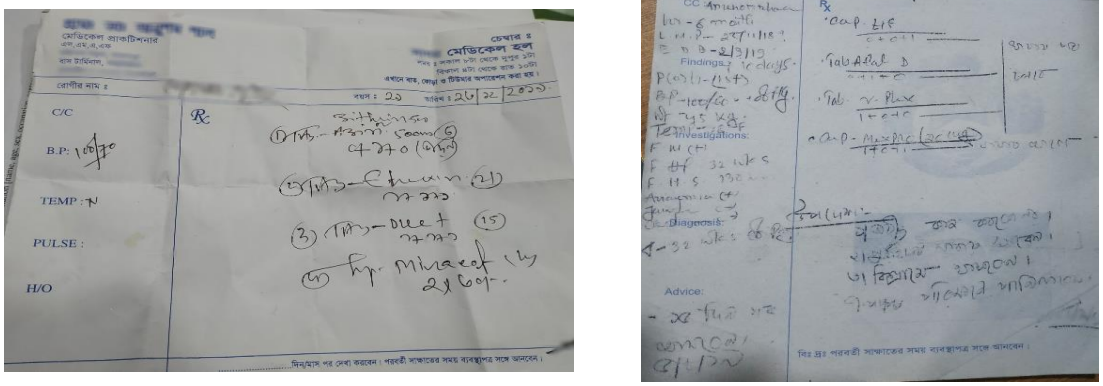


Figure 20: Two prescriptions of pharmacy daktars; unauthorised biomedical practitioners in their pharmacies. Photo: Nur Newaz Khan

Prescription writing pads can be ordered from a local market per designs requested by the practitioner. Pharmaceutical companies also sponsor prescription pads for pharmacy daktar (they offer such items to all doctors) as promotional gifts. Samirnath, a rural pharmacy daktar, showed me his prescription pad and mentioned that a Medical Promotion Officer (MPO) from a leading pharmaceutical company printed the prescription pad for him as he agreed to write medicine and products of that company. He explained the benefit,

> "I did not have to spend or invest money in a few things. As you can see, this prescription writing pad was gifted by Shifa pharma, and they also gave me other gifts like a pen or other tools necessary for a health check or patient consultation. It also saves money in my business."

Nevertheless, verbal prescription and self-medication (request by the patient to the pharmacy daktars) remain major patterns of unauthorised and informal prescribing practices; these are also defined as floating prescriptions in other South Asian contexts (Ecks and Basu, 2009).

Verbal prescription and self-medication

Verbal prescription is considered harmless by the pharmacy daktars since there is no proper guidance/implementation of the prohibition of "*Mukhe Mukhe chikitsha deya*" (verbal consultations and prescribing). Rimon, one pharmacy daktar in this research, explained,

> "I do not write prescriptions; I just tell the treatment to my patient. I think that does not harm me as I do not give treatment beyond my knowledge and experience. If I think I cannot handle that, I refer patients to big daktars (qualified and formal)."

To get an overview, I asked Rimon daktar what he does if someone comes with a fever. He then described the whole treatment process, reflecting on the same practice by all other pharmacy daktar. He said,

> "At first, I give Napa (paracetamol) for fever and observe for two or three days; if not cured, I give a course of antibiotics, say, Gmax (Azithromycin). Now, there are different courses of antibiotics starting from three days, then 5, 7 and 14 days. Sometimes, you need 21 days course, but in most cases, 5 to 7 days is enough for people who come to pharmacies. Otherwise, this is not normal, and they go to town to see *boro daktar* (formal/specialised/famous physician)."

Apart from the verbal consultation and prescription by pharmacy daktars, patients' requests for particular medicine in retail pharmacies, as in self-medication, are widespread. Commonly, patients do not think of presenting a prescription when buying specific or repeat medication. Customers usually bring the *kata/khali pata* (empty strip/packet) (Ahmed *et al.*, 2017; Shah, 2020) or tell the pharmacy daktar the brand name of the medicine if known. Most healthcare seekers are also comfortable with such practice as they can get free medical advice, information about treatment options/facilities and referral linkage for urgent healthcare needs (Adams, Islam and Ahmed, 2015; Rakib *et al.*, 2015; Shah, 2020). On some occasions, I observed that patients brought a single unit of the consumed strip with no trace of the medicine name. Sometimes customers even only mention the colour of the medicine to the pharmacy daktar as many healthcare seekers cannot read the English names on the medicine pack. Generally, most retail pharmacy daktars do not provide money receipts for sold medicine, nor do customers ask for one. Such daily transactions take place based on a trusting relationship between the clients and pharmacy daktar as they know each other well, live in proximity (Ahmed *et al.*, 2017) and are members of the same village (Shah, 2020) or urban community (Adams, Islam and Ahmed, 2015).

In most medical dictionaries, "self-medication" is medication by oneself without professional supervision or prescription by a physician. The WHO defines self-medication as " the use of medicines to treat self-diagnosed disorders without consulting a medical practitioner and without any medical supervision" (WHO, 1994b). Neither definition indicates how a person accesses the medication they wish to use (assuming they purchase it rather than make it themselves) nor the seller's influence on self-medication. The popular understanding of "self-medication" is synonymous with the request by patients for medicine without a prescription. A few studies refer to self-medication as self-diagnosis and requests for medicine by patients to pharmacy staff (Awad and Eltayeb, 2007; Ahmed *et al.*, 2017; Shah, 2020). The major limitation in this understanding of "self-medication" is that it overlooks the dyadic process involved in decision-making between a patient and the provider. Studies in social science show that patients could initiate self-medication but pharmacy sellers also frequently recommend medications upon patient's request for suggestions, although it is illegal (Kamat and Nichter, 1998; Laing, Hogerzeil and Ross-Degnan, 2001; Akande and Ologe, 2007; Bloom, Standing and Lloyd, 2008; Sabry, Farid and Dawoud, 2014). As I observed patients asking for a

particular brand of drugs, pharmacy daktars also tried to convince patients to buy brands of their recommendation. I suggest that in Bangladesh, self-medication must be seen as an interaction between patients and medicine sellers (pharmacy or others) where both parties have interactive participation in decision-making rather than as only patients' requests to pharmacy staff.

Most of the healthcare seekers I spoke with in this research mentioned that they usually do not look at the information about the practitioner on a prescription but rather look only for their reputation. People do not worry about the certificates of pharmacy daktars unless there is any harm experienced or associated with the medication they prescribed/suggested. One of the participants mentioned, "We know they (pharmacy daktar) are not qualified or registered doctors. They are popular, and many others get good treatment from them. Who needs to check their degree or certificates? Where is that time? What matters is I am healed". It is also important to note that many healthcare seekers in Bangladesh do not have adequate literacy to read the written prescription. Pharmacy daktars help patients on such occasions as a translator to explain prescriptions provided in English by formal doctors (Shah, 2020). However, the arbitrary use of prescriptions that I have just discussed, although not intended to cause harm, can sometimes drive misuse of authority and negatively impact public health. In the next section, I address how a lack of literacy and knowledge about prescribing and the uncontrolled dispensing of medicine may affect public health, care-seeking behaviour and health expenditure.

Unintended outcomes of unregulated activities by pharmacy daktars

The primary intention of pharmacy operators as biomedical providers is to make their living by serving the community with healthcare needs. However, their activities, such as uncontrolled prescriptions or response to self-medication requests and dispensing critical drugs (e.g. antibiotics, steroids and other prescription medicines), can cause harm to the individual patient's health and the broader public health. According to the social theorist Robert Merton, social actions can create unintended and unanticipated or sometimes damaging results, even with positive intentions. Some individuals or institutions' 'rigidity of habit' and 'imperious immediacy of interest' could be potential reasons for unanticipated consequences (Merton, 1936). Subsequently, other scholars have analysed Merton's point and argued that even with good intentions, the individual can "make an error or take an action that subverts one's ultimate goal" (Farmer *et al.*, 2013, p. 20). Merton's idea of "unintended consequences" has been a useful in contemporary social science research analysing a variety of social contexts and responses to social needs and crises. More recently, the engagement with this idea is evident in the analysis of the responses around the world to the COVID-19 crisis (Herrick, 2016; Bot,

Wilbanks and Mangravite, 2019; Tonn and Stiefel, 2019; de Alteriis, 2020; Ziebland, Hyde and Powell, 2021; Goloukhova and Kuzmina, 2021; Goodall, 2021; Lariviere *et al.*, 2021; Vianna Franco *et al.*, 2022; Rachul *et al.*, 2022; Rakshith *et al.*, 2023; Sattar *et al.*, 2023). However, Social science or anthropological analysis in this regard for the biomedical context of Bangladesh is rare. Biomedical, epidemiolocal, and public health studies have reported adverse impacts of unauthorised biomedical prescribing and drug dispensing, particularly antibiotics and steroids and the potential risk (Ahmed *et al.*, 2017; Saha and Hossain, 2017; Lucas *et al.*, 2019). Research has revealed that pharmacy providers could play a supportive role if appropriately supervised, but their unregulated prescribing and dispensing of critical medicines are alarming for public health (Arifeen El *et al.*, 2013; Saha and Hossain, 2017). Roy et al. recommend that unrecognised service providers in retail pharmacies should not prescribe and dispense drugs related to hypertensive disorders for pregnant patients as they lack sufficient knowledge about benefits and associated risks or complications (Roy *et al.*, 2020). Poor handwriting on prescriptions by formal physicians and possible misreading by dispensers are common problems in Bangladesh's health sector. In my fieldwork, I observed evidence of limited knowledge in prescription writing, particularly a lack of competency in the English language among the pharmacy daktars, which could affect the quality of prescriptions leading to potential mistreatment or wrong medicines dispensed. In what follows, I describe and discuss these issues.

Writing a prescription: knowledge, skills and concerns about pharmacy daktars

Physician prescription errors in hospitals have been well reported in research (Sultana *et al.*, 2015; Dyasanoor and Urooge, 2016). In Bangladesh, hazy handwriting on formal doctors' prescriptions has been reported to cause misreading of medications written, wrong medicine dispensed and even associated death (Chowdhury *et al.*, 2007; Chowdhury and Alam, 2008; Hussain, 2019). However, no research has focused on a detailed analysis of prescription writing capacity among Bangladesh's unauthorised and informally trained practitioners in retail pharmacies. Practitioners worldwide usually write medicine names on prescriptions in English. Biomedical doctors in Bangladesh generally write medicine brand names on prescriptions instead of generic ones[38], and most often, the prescription is handwritten. Physicians' unclear handwriting on a prescription is a challenge for retail pharmacy operators and has been such a longstanding problem that it has been a regular topic in national news. The High Court issued

[38] This is very recent that some only a few private hospitals introduced writing generic drug names in prescription by doctors who practice in their facilities.

an order[39] in 2017 to the government asking to make sure doctors write their prescriptions 'clearly' in that is readable and understandable to prevent wrong dispensing in pharmacies (The Daily Star, 2017), but achieving this objective remains challenging (Hussain, 2019). One case that illustrates evidence of such a problem, though it also requires further research, is that of Samirnath, a Rural Medical Practitioner (RMP) who runs his chamber three partitions away from the family pharmacy shop run by his father and brother in the local marketplace.

Samiranth's chamber room is barely 20 sqft, including the waiting space. There are three other shops positioned between the chamber and the pharmacy. Often patients are standing in the corridor between the pharmacy and his chamber room. A patient came in during my observation session with Samirnath in his room. Najmun Nahar, a 36-year-old woman, suffers from fever, severe coughing and headache. She is struggling to sleep due to pain too. Samirnath prescribed some medicines; Optimox (Moxifloxacin), Flexidol (Aceclofenac, painkiller), Renova (paracetamol), Sargel (Esomeprazole) and Barbit (Phenobarbital, an anti-epileptic agent and antidepressant). Samirnath misspelled three brand names (photo below): the antibiotic written as Optemox, the painkiller as Flexedol and the antidepressant as Berbit in the prescription[40].

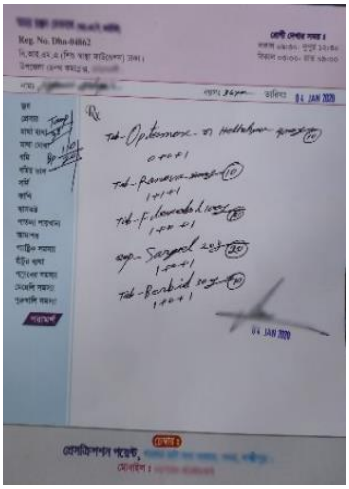


Figure 21: A pharmacy daktar's prescription containing misspelled drug brand names. One of the leading pharmaceutical company in the country sponsored this prescription pad as gift for him. Photo: Nur Newaz khan

While this may seem minor in terms of the number of incidents, I find this significant as the capability to write a prescription and medicine names (brand or generic) correctly for any

[39] The order was an outcome of petition filed by an organisation named Human rights and Peace for Bangladesh to the HC on January 2 as claimed, following a news featured by the online Bangla news portal "The Daily Bonik Barta in December 2016. For more detail please visit: https://www.thedailystar.net/country/write-prescriptions-clearly-hc-tells-doctors-1342657

[40] To see the actual brand names and details visit: https://medex.com.bd/brands/9618/optimox-400mg; https://medex.com.bd/brands/4953/barbit-20mg and https://medex.com.bd/brands/17375/flexidol-100mg

practitioner is crucial for treatment. Moreover, a good deal of medicines could come with similar or closer brand name spelling that could be misread in case of such misspelled or hazy handwritten prescription, thus, leading to dispensing of the wrong medicine[41]. Most pharmacy operators/daktar have the grade C pharmacist certificate with often only 10-grade education or minor courses completed (unapproved by health authority) with shorter training. Many pharmacies have assistants who have even less education for the work they are asked to do and who mainly gain experience through learning by doing. Most often, pharmacy operators and assistants struggle to read medicine names on a prescription to ensure dispensing of the actual medicines due to the unclear and hazy handwriting of formal physicians (Sultana *et al.*, 2015; Dyasanoor and Urooge, 2016). In this research, healthcare seekers and pharmacy daktars stated that it is not uncommon for patients to get the wrong medicine dispensed or the wrong treatment due to incorrect prescription readings. I found two examples during my data collection period where pharmacy owners dispensed different medicines due to misreading the brand name written on prescriptions; I describe one of the cases here. On some occasions, pharmacy daktars showed me prescriptions from formal doctors and argued that when formally qualified doctors cannot write 'properly' and 'in a readable way, so this cannot be expected from a 10th grader and 6-month trained pharmacy daktar. Based on Merton's argument, as Farmer et al. explained, biomedical knowledge asymmetries such as lack of linguistic competency and dilemmas encountered by health practitioners could lead to misunderstanding the patients' illness accounts and results in misdiagnosis (Farmer *et al.*, 2013, p. 22). The case regarding Monju presented at the beginning of this chapter and Najmun's case in this section are aligned with suggesting the need for further research to understand and analyse similar subjective experiences and related public health consequences.

Another concern noted by researchers about such unauthorised practices among providers with limited training in biomedicine is the trials and experimental attempts they undertake to impress their patients. Although rare, in my ethnography, I found that pharmacy daktars sometimes crossed boundaries of knowledge and training for profit or to make an impression on the patient. Such incidents are reported to be causing more harm to patients than supporting

[41] For example, Flexidol (Moxifloxacin) is an antibiotic (Flexedol is wrong spelling as presented in this case), and Flexeril (cyclobenzaprine) is a muscle spasm and could easily be misread if the handwriting is not clear or misspelled. Another example is that Phenobarbital has at least five other formations: Amobarbitral, Phenobarbital, Secobarbital, and Thiopental. Some of the formations have associations of use as narcotics and addiction drugs (López-Muñoz, Ucha-Udabe and Alamo, 2005; Khan and Kahwaji, 2021) The brand Barbit is for Phenobarbital in the market that was written Berbit in this case which could be misleading for pharmacist or dispenser. Moreover, a misspelling could result in dispensing a different brand of the same generic drug such as *Berdinal*, which might not be expected by the patient or customer or entirely a different drug such as Baritor (Baricitinib, used for arthritis-related illnesses) or Berdiom (Domperidone Maleate, a gasrtrologiocal medicine) that could result in mistreatment as well. For details of these drugs, see https://linkmix.co/9583695

healing. Bahar daktar shared his observation in a village marketplace about such an incident of mistreatment by another pharmacy daktar. He said,

> "I tell you Mama[42] pharmacy daktars do not have morality or ethics in recent times. They do mistreatment. For example, we had observed in this market eight months back that a pharmacy daktar gave a kid the wrong medicine. One of the kid's eyes was almost lost due to that wrong medication. The patient's family came into the market, and there was chaos. We sat with the market committee, and finally, the daktar had to pay a compensation of Tk.60,000 (A$970 approx.). Still, he is very popular because people are also not looking at quality; instead, they look for quick recovery having no awareness of side effects of medicines given."

According to most of the pharmacy Daktars in this research, dispensing wrong medications for the sake of selling medications and profit is increasing among the newer or less experienced daktars. This is also due to the fact that the number of experienced daktars is declining. The new generation of pharmacy daktars, according to daktar Bahar, tend to be greedy to profit as they practice outside of their actual knowledge and capability. Shah in his study observed that VDs based on their pharmacies, had a high reputation, but they often go beyond their knowledge and recommend 'unnecessary trial treatment', generating severe health consequences and higher patient costs (Shah, 2020, p. 197). Many pharmacy operators know some indications of common drugs from their working experience but lack knowledge of side effects such as medications during pregnancy (Haque et al., 2016) and high blood pressure (Saha and Hossain, 2017). In some cases, their lack of ability and knowledge to identify the severity of symptoms was the reason for unnecessary morbidity in pregnancy-related cases (Killewo *et al.*, 2006). Nevertheless, such findings also show the need for further research to understand the depth and level of such incidents and their possible effect on public health. Along with such unskilled practices, responding to patients' requests for medicines is another common phenomenon when patients request medication for themselves without producing the actual prescription. Such self-medication reportedly causes immediate and long-term health consequences.

Self-medication, pharmacy daktars and health consequences

Sales of antibiotics without a prescription are against the law in Bangladesh but are common in retail shops both in the form of self-medication by patients and verbal prescriptions by pharmacy daktars (Kotwani *et al.*, 2012; Biswas *et al.*, 2014; Haque *et al.*, 2016, 2018; Ahmed *et al.*, 2017; Saha and Hossain, 2017). Biomedical care providers in public facilities are also reported to practice polypharmacy[43], which refers to multiple medications and overprescribing

[42] Mama refers to maternal uncle, used to address to nephew. A kinship term commonly used to address non-relative or strangers in any interaction or conversation.
[43] Specifically the regular use of at least five medication

common drugs, including steroids and harmful antibiotics (Ahmed and Islam, 2012). I also observed frequent prescribing and over-the-counter (OTC) sales of 'prescription-only drugs' in all retail pharmacies in all my research sites. From the medical point of view, such prescribing is 'irrational', and it gets out of control when used by patients as self-medication and dispensed by pharmacy operators. The most significant concern of self-medication and unsupervised use of antibiotics is increasing Antimicrobial Resistance (AMR), which is considered a threat to global health. According to the WHO factsheets[44]:

> "Antimicrobial Resistance (AMR) occurs when bacteria, viruses, fungi and parasites change over time and no longer respond to medicines making infections harder to treat and increasing the risk of disease spread, severe illness and death. As a result of drug resistance, antibiotics and other antimicrobial medicines become ineffective, and infections become increasingly difficult or impossible to treat."

Researchers have also pointed out that different socioeconomic determinants of health are connected with AMR variations (Ojo *et al.*, 2008). For example, studies in medical and social science on health reveal that self-medication and overprescribing are significant reasons behind AMR conditions making medicines ineffective in curing bacterial diseases across the world (Shankar, Partha and Shenoy, 2002; Pagan *et al.*, 2006; Okeke *et al.*, 2007; Kotwani *et al.*, 2012; Biswas *et al.*, 2014; Sabry, Farid and Dawoud, 2014; Ocan *et al.*, 2015; Matin *et al.*, 2020). However, the AMR conditions in developing countries are more cataclysmic with the increasing number of fatal bacterial and infectious illnesses. The primary reason identified is the availability of antibiotics in retail pharmacies (Bloom *et al.*, 2015). Bangladesh is a prominent example in this regard (Ahmed *et al.*, 2011; Saha and Hossain, 2017). Many healthcare seekers and all the formal MBBS doctors I interviewed stressed this too. One of the MBBS doctors said,

> "Village doctors or pharmacy doctors, whatever we say, they are a vital part of our health delivery system as the support workforce. However, the problem is that they are not trained and monitored well. Many of them write prescriptions, but they do not have sufficient knowledge of pharmacology or vast medicines. They only know some popular brand names or what MPOs tell them. They are prescribing antibiotics and seeing people take them just like they eat *Muri* (puffed rice) because everyone can prescribe!"

More specifically, studies in Bangladesh report that self-medication at retail pharmacies could lead to adverse effects among pregnant women (Haque *et al.*, 2016; Roy *et al.*, 2020), children (Billah *et al.*, 2018) and patients with chronic illnesses (Chowdhury and Alam, 2008; Ahmed *et al.*, 2017; Saha and Hossain, 2017; Jakaria *et al.*, 2021). Biswas et al. noted that such practices have severe adverse drug reactions and even cause "the development of chronic disease and

[44] The definitions and guidelines on AMR by WHO can be accessed at https://www.who.int/news-room/fact-sheets/detail/antimicrobial-resistance

superinfection" (Biswas *et al.*, 2014). In their nationwide survey on drug shops, Ahmed et al. noted that most healthcare seekers considered a prescription 'superfluous' at retail pharmacies even if they were buying prescription-only drugs (Ahmed *et al.*, 2017, p. 8). It is also common that pharmacy operators and daktars do not require prescriptions from the customers. Consistent with the literature, I also found that most patients/customers directly ask for particular known brand names from the pharmacy daktars or for pharmacy daktars' advice and recommendations on medicine brands. Pharmacy daktars and operators thus, play a crucial role in stimulating self-medication practices and ultimately fostering unnecessary medication.

Often patients look for a faster cure of symptoms, and pharmacy daktars also "tend to recommend medicines with dramatic action and lucrative profit irrespective of medicine's safety profile" as for them, "knowing side effects do not add anything to the business" (Saha and Hossain, 2017, pp. 6–7). Pharmacy daktar and operators also prescribe and sell banned, counterfeit and sub-standard medicines that are popularly endorsed by the formal doctors or frequently requested by the patients/customers. Such drug dispensing patterns have two different dimensions. First, a range of banned medicines are still available in the market and prescribed by all types of practitioners. Second is the retail market of counterfeit and sub-standard medicines. The following section presents a scenario of illegal psychiatric drug dispensing by pharmacy operators (I discuss counterfeit and sub-standard medicine marketing in Chapter Five).

Arbitrary prescription, self-medication and prohibited drugs

Most pharmacy daktar and operators keep updated knowledge on any new drugs entering the market. Pharmaceutical company promotion officers and marketing people usually provide such updates. However, many pharmacy operators have less idea about present prohibited drugs; they also ignore such prohibitions and continue selling those drugs for profit. Many banned, high-risk medicines are available in retail pharmacies, prescribed by both formal and unauthorised providers, and dispensed even without a prescription. Generally, any drug considered to cause harm rather than benefit the population's health is removed from the market by the health authorities. Most of the country's governments follow the American Food and Drug Administration (FDA) guidelines. Under the ministry of health in Bangladesh, the Directorate General of Drug Administration (DGDA) is the authority that controls the power of approving new drugs and prohibitions based on the updated drug control ACT 2019 and FDA guidelines.

The Bangladesh government, at different times, has prohibited a certain number of drug production and marketing over the last decade. As reported, at least 34 drugs in 2017[45] and another 23 brands in 2019[46] were banned due to reported side effects and ailments. Various active medicines in the market for diabetes, cancer, psychiatric and Gastrological infections were prohibited due to adverse effects like heart attacks and strokes with reported demises. However, in reality, such banned medicines are not only available in retail pharmacies; physicians in formal healthcare settings also prescribe them regularly (Jakaria *et al.*, 2015). Among others, the retail market of prohibited drugs like Ranitidine (gastrointestinal medication) and Flupenthixol-Melitracen (antipsychotic/antidepressant agent) are two examples. Next, I present a case of prohibited antidepressants that are prescribed and dispensed at retail pharmacies.

Ghum, *Dushchinta* and antidepressants

On one observation, pharmacy daktar Rimon sold a customer five units of Clon (clonazepam) tablets, an antidepressant popularly known as a sleeping pill. I asked him if this was permitted to sell such medicine without a prescription or not. He replied,

> "No, we cannot sell sleeping pills, but this was not a sleeping pill but medicines to reduce *dushchinta* (tension). Yes, those often have sleeping effects; if you take them, you can sleep well, but sleeping pills are different. I usually do not want to sell those without a prescription, but you know what, many patients have *ghumer somossya* (disturbed sleep/sleeping difficulties) because of *dushchinta* (tension). It is difficult for them to go to the doctor to make a repeat prescription every time they need it."

I asked Rimon how many such medicines were available, and he showed me four different brands of four generic antidepressants and sleeping pills in his shop. I then asked him why it was not allowed to sell. He said, "Young boys use those for addiction, and some try to take many tablets to attempt suicide. So, these are not allowed without proper prescription". Though in formal interviews, all pharmacy daktar mentioned that it is completely forbidden to sell sleeping pills without a registered doctor's prescription, but retail pharmacies commonly prescribe verbally and sell antidepressant brands regularly. I observed that generally, people could not differentiate between a general sleeping pill and an antidepressant agent, so they rely on pharmacy daktars' recommendations.

It is crucial to note that most pharmacy daktars do not explicitly know what an SSRI or antidepressant means. I found that out of forty participants, only three pharmacy daktars (with work experience as pharmaceutical representatives) recognised SSRIs as psychotic drugs.

[45] Visit for related news at https://www.indiatoday.in/world/story/bangladesh-pharmaceuticals-drugs-ban-960524-2017-02-13
[46] Visit for related news at https://www.newagebd.net/article/86349/ranitidine-other-banned-drugs-still-at-stores

Most pharmacy daktars sell these medicines like sleeping pills for patients who suffer from '*ghumer somossya* (sleeping difficulties) or *Dushchinta* (tension). Generally, antidepressants are prohibited from selling without a valid physician's prescription; however, the findings show that anyone can buy an antidepressant from a retail pharmacy without a prescription. Jakaria et al., in their 2015 survey, found that the respective authorities withdrew many medicines in many countries, but some are available in Bangladesh's retail market. For example, Fluphenthioxol-Melitracen is available in a higher percentage of studied pharmacies although it is prohibited for sale by the drug administration due to intense neurological side effects (Jakaria *et al.*, 2015). Nishat et al. reported that self-medication is frequent for Fluphenthioxol-Melitracen dispensing in retail pharmacies in Bangladesh (Chowdhury, Haque and Aysha, 2012). I also observed in my field that antidepressants are readily available to purchase in suburban and rural areas without a prescription. People approach the pharmacy counter asking for specific brand names of sleeping pills that are actually antidepressants, such as Clonazepam, Flupentixol/Flupenthioxol-Melitracen, or Diazepam sold under different brand names. For example, the following photo shows a strip of Flupentixol that Rimon showed, a banned medicine in many countries, even India (Gupta *et al.*, 2011; Bhaumik, 2013). However, this is a popular sale item in Bangladesh, just like in Rimon's shop.

Figure 22: Flupentixol-melitracen, a banned medicine available in retail pharmacies. its also banned in many countries due to adverse effects on health but commonly prescribed and sold in retial pharmacies in Bangladesh. Photo: Nur Newaz Khan

The unregulated market of antidepressants and psychiatric medications or drugs to treat mental illnesses are a more significant concern in Bangladesh. Most pharmacy daktars in this research argued that the government's corrupt and weak drug monitoring efforts are responsible for prescribing and selling prohibited medicines. One of them clarified and rationalised the selling of prohibited drugs in this way,

> "we will stop selling if government ask us not to sell, but if you cannot make strong law and implement that, how can you stop this? If I am not selling, some others will do. There is a high demand for *Ghumer* and *Dushchitar Oshudh*. I am here to make a profit and my earnings, right?"

The fact is that there are many unapproved and banned medicines actively sold at the retail pharmacy level, and psychiatric drugs are common among them. For instance, in another communication brief Jakaria et al. noted that at least five generics of benzodiazepine antidepressants are available in retail pharmacies with potential risks of adverse side effects as consumed without supervision. Pharmaceutical companies (both licensed and unlicensed) still offer these to retail medicine shops (Jakaria *et al.*, 2018). My observations and analysis suggest that such a context prevails because the prohibition on prescribing and selling banned drugs is not as strict in practice as it appears in policy documents or as claimed by government officials in different media appearances.

Besides these prohibited drugs, there is a larger market of counterfeit and sub-standard medicines, another significant concern in Bangladesh. Research participants reported that the state monitoring system is ill-functioning and corrupted in monitoring and controlling such misuse. Scholars have also noted such context as significant weaknesses of the national health policy and poor implementation of drug monitoring systems and structured retail pharmacy management (Chowdhury, Ahasan and Rahman, 2006; Habib *et al.*, 2020; Murshid and Haque, 2020). Notably, the pharmaceutical industry strongly influences retail pharmacies by using them as the main channel of sales and dispensing of such medicines (I discuss these issues in Chapter Five). Moreover, the relationship between pharmacy daktar and other stakeholders in the medical business, such as formal doctors, diagnostic centres, and pathology labs, has consequential impacts on patients' health-seeking behaviour and health expenditure.

Referral practice by pharmacy daktars, mutual interests and health costs for patients

The referral practice by pharmacy daktar can be an excellent example of how any actions with good intentions can adversely affect patients' health costs. Pharmacy daktars, as part of their services, often refer patients to higher levels such as formal specialised doctors and diagnostic centres for consultations or test and pantological investigation to formal public and private facilities. Pharmacy daktars get a commission per referral from private clinics and diagnostic centres. Mutual benefit-sharing between pharmacy daktars and private medical service providers is a common trait reported in previous studies. For instance, Shah has shown that such referral practice among VDs in rural areas affects the quality of healthcare for the patient because of the competitive 'commission business'. As he described:

> "……VDs refer their patients to qualified private medical practitioners, clinics and diagnostic centres with whom they maintain personal liaison. Patients' referrals depend mainly on commission that the VDs receive from private healthcare providers for

> referring patients. But this practice of paying commission to the VDs for referring patients at the end gives rise to unhealthy competition among the private healthcare providers on the rate of commission because the VDs mainly refer their patients to those private healthcare providers, who could offer higher amounts of money as commission to them. The quality of healthcare of the providers becomes secondary importance to the VDs and is replaced by the motive of personal benefit. VDs play an important role in creating *sunam* (welfare) of private healthcare providers. These include qualified doctors in private practice, diagnostic centres and clinics." (Shah, 2020, pp. 187–188)

Consistent with such findings, pharmacy daktars in my ethnography also mentioned that they get a percentage or fixed amount of money from the private clinic, hospital or diagnostic centres when they refer a patient for investigation or consultation. Such dealings happen in two ways. One is to accompany the patient to private healthcare facilities and get a cash payment from the service provider. Often, they can refer patients and get money transferred to them using mobile apps. The other way is to make a deal with the specific provider to get a fixed percentage of the total cost spent by the patient for health investigation or pathology. In latter cases, pharmacy daktar gets 10-30% of the total cost. Usually, the percentage is higher when total spending is more, excluding the formal physician's fee. Nevertheless, this increases the healthcare cost for the patients as all this money goes from their pocket.

Regardless of location, healthcare seekers know this shared 'commission business' (Shah, 2020, p. 188) of pharmacy daktars. However, they usually overlook this fact for two reasons. First, care seekers have fewer healthcare choices and cannot control interconnected health networks or business chains. Second, people in general focus on their benefits from pharmacy daktar. For instance, quick and easy access to specialised physicians with accompanied guidance by pharmacy daktars to access better medical services and tests outweigh additional costs that are considered as inclusive (Parr *et al.*, 2012; Adams, Islam and Ahmed, 2015; Khan *et al.*, 2015; Ahmed *et al.*, 2017; Shah, 2020). Although such roles are typical, some pharmacy daktars perceive this as unethical to profit from patients' vulnerability, specifically if the patients are from lower-income groups. In this context, it is the community people in general who are being subjected to the broader structural vulnerability (Farmer *et al.*, 2006; Holmes, 2011) as they are in a coercive reality being forced to choose unauthorised healthcare practitioners for their primary healthcare needs because the state public health practitioners are either inadequate and distant or unavailable, and private healthcare is beyond their affordability in most cases. Such a reality for healthcare seekers also brings the question of the ethical position of pharmacy practitioners in medicine. Apart from the view of formal doctors, I found two contrasting perceptions about the pharmacy daktars: viewing medicine (both practice and medicine sale) as a profit-seeking business versus medicine as a moral occupation.

Medicine as care versus medicine as a business: unintended but anticipated outcomes?

The ethical position of formal physicians in Bangladesh's health systems is always a highlighted discussion in the literature. I have already mentioned in earlier chapters that registered doctors in public health services are criticised for their dual practice trend of having their public and private practices, reluctance to serve in disadvantaged areas and their gift-receiving relationship with pharmaceuticals. Moreover, unregulated drug dispensing by pharmacy operators/daktars and their referral benefits from private medical providers also add to the 'high out-of-pocket expenditure' for most care seekers (Sobhan, 2010; Shafique *et al.*, 2018; Shah, 2020). Patients and care seekers accessing these services from pharmacy daktars are aware of these factors that ultimately increase health costs. Analysing Merton's theoretical use of his concepts 'unintended and unanticipated' consequences, Zwart noted that Merton himself had conflated the use of these two concepts. As he argues, in some contexts, some actions of individuals or groups can be unintended but not unanticipated. In conclusion, he (Zwart, 2015, p. 295) mentioned,

> "Although he [Robert Merton] later stressed the need to distinguish these two concepts, he could not undo the lasting influence of his own earlier work: "unintended consequences" has come to mean unforeseen side effects, the study of which is often called the raison d'être of social *science*. However, this conceptual conflation has rendered invisible another category of outcomes, namely unintended but anticipated consequences"

I find Zwart's argument pertinent to my thesis. As findings suggest that pharmacy daktars' activities (unskilled prescribing and referral practice for 'commission') for more profits are not unanticipated by their patients, as evidenced above. Most pharmacy daktars view their profession as *Daktari* or *Oshud beybsha* (practising medicine or selling medicine as a business) to make earnings for their family. One of the pharmacy owners mentioned,

> "If you can manage parties like local administration (local government and political leaders) and drug super office (drug administration), then medicine is a good business to earn. You do not need to run after supplies, you can get those by a mobile phone call, and companies come to your door."

Such views and activities are commonly accepted among the community people. The mutual interest between pharmacy daktars and private medical providers is also a normalised fact among care seekers across the country (Shah, 2020). In addition, my research findings also

show that pharmacy daktars are aware of their moral and ethical positioning in the medicine business. Bahar daktar[47] in the rural site explained the matter this way,

> "Nowadays, medicine business has become unethical, and everyone is running after profit. The younger ones who came into *daktari beybsha* (practising as doctors and medicine selling business) are not trained well. It is important where you get your training and medical knowledge. I was trained in an army hospital. These younger ones did one of two courses from unrecognised providers. Some even did not study well or complete the course properly. They are not in this business to serve but make money out of people's helplessness."

Formal doctors in this research also stated that the referral practice by pharmacy daktars adds an unnecessary cost burden for the patients. However, some physicians also pointed out the necessity of pharmacy providers to fill the country's shortage of qualified practitioners and providers. Therefore, they recommend developing better surveillance and supervision of pharmacy daktars to build a comprehensive referral system (see Chapter Six for more details). Dr Imran, an anaesthesiologist in a district hospital, explained the situation in this way-

> "Village doctor, quack or pharmacy daktar; whatever you say, they are still not authorised to prescribe. And yes, they are risk factors as they go beyond their knowledge for more money and are not properly trained, but we need them because still a larger portion of our people have fewer choices of qualified doctors. They are also helpful as a primary health checkpoint and affordable provider in the neighbourhood. However, I think they should be working under MBBS doctors to whom they will report and refer. If the government honestly wants, it is not impossible to establish."

I found the view of formal doctors' moral outlook regarding pharmacy daktars' practice in medicine contradictory, considering their own role and unauthorised practices in pharmacies. Almost all the formal doctors viewed pharmacy daktars' activities as unethical, unqualified and risky. Some viewed them as 'quackery' out of control (Beals, 1994; Langford, 1999; Saha and Hossain, 2017). Interestingly, most physicians justify their own amoral relation with pharmaceuticals (receiving gifts for suggested medicine in prescription) as a 'culture of practice' (detailed in Chapter Five).

Nevertheless, healthcare seekers still find pharmacy daktars less expensive than formal private doctors. They can gain additional benefits free of cost from the pharmacy shop, such as post-operative nursing services, free health advice and pregnancy health check-ups. Since such services are available only for primary or non-critical health problems, healthcare seekers do not view pharmacy daktar as harmful; instead, find them beneficial. It is also because even health information can be costly to obtain from a formal doctor. Medical anthropologists have

[47] He is known as the army daktar for his former affiliations in a military hospital as medical assistant. He is the person upon who's background and my interactions with him motivate me initiating research question for this thesis. See Chapter One openings for his details.

analysed the concept of the moral economy of health, explaining the role of physicians and corporations and the pharmaceutical industry at the macro-level (see Chapter Five for more), resulting in a higher price for healthcare and medicine across the globe (Fassin, 2012). Engaging with the moral economy concept in the microeconomic healthcare context, I next discuss the reasons behind the presence of unauthorised pharmacy daktars in the healthcare market in Bangladesh when even most care seekers are aware of their illegality and profitmaking behaviours.

The "unauthorised but moral" economy of health at the local level

The discussion about unauthorised pharmacy practitioners and their activities in the health industry in mainstream literature is inconsistent and often conflicting. Cross and MacGregor noted that such conflicting viewing has two sides. For instance, the role of pharmacy daktars and such providers is seen as part of the informal economy, tagged as 'unregulated' and 'unaccountable' actors in the economy who only serve their self-interest. However, they are also often recognised as "locally situated social actors who are entwined in binding relationships, networks of kinship, patronage and reciprocity." (Cross and MacGregor, 2009, p. 13). In line with this, I have also found that formal providers and researchers evaluate the pharmacy daktar-patient interactions from a normative point of view as 'inappropriate medical consultation' but are simultaneously presented as highly competitive in the health market. Such paradoxes reveal the inadequacy of the popular understanding and terms of debate regarding the unauthorised biomedical practices by retail pharmacies that are entangled with the cultural economy of the health and medicine market.

As discussed above, pharmacy daktars may work in the non-formal health sector based on their economic interests, creating unintended consequences for care seekers. However, their position in the primary healthcare market also needs to be understood beyond their profitmaking attempts as they work under a moral economy of health in the local community. Here I present a case scenario from my research as an example. Halim shared his family experience and explanation in this regard, reflecting most healthcare seekers' points of view. He mentioned,

> "We live in a village where there are no qualified doctors available. We usually go to the district public hospital, but the waiting time is too long there, and we need to stand in a long queue there as the seating arrangement is inadequate. When you have a pregnant wife, this is difficult to wait like this. Shihab daktar suggested that we go to Shova diagnostic centre in the district city, where a specialised doctor comes from Chattogram (divisional city) medical college and visits patients. We know he gets a commission from there, which is expensive as well, but you know, we do not need to wait too long there, and the doctor gives us more time, plus we get regular pregnancy health check-ups from Shihab's shop for free.

> Shihab once also went with us to Majidpur medical (a regional medical college and hospital) for my ulcer treatment. We got a discount on doctor's fees and tests. I think this is better than going alone and getting trapped with huge bills as we are not that literate or do not have knowledge of medical things. We trust him as he will not give us any wrong direction because he is also from our neighbouring village and has the market's reputation."

Similarly, offering free health advice/consultation, selling medicine on credit, giving customers flexible payment options, etc. (see Chapter Three for detailed discussion) make pharmacy daktar and similar providers more 'moral' to their clients. Such findings are consistent with literature from many other country contexts. For example, in African contexts, studies showed that for community pharmacy providers, maintaining good relations and being moral with customers is to sell medicine on credit when customers cannot pay upfront (Bierlich, 1999; Marsh *et al.*, 1999; Ayele *et al.*, 2021). Thus, healthcare costs are often central rather than the clinical signs and severity of illness, in the medical transactions between unauthorised pharmacy daktars and their patients.

Discussion in economic anthropology also suggests that financial decisions can be made and justified with choices that optimise the utility of interactions and transactions to maximise profit (Kamat and Nichter, 1998; Cross and MacGregor, 2010). However, such decisions can also be influenced by the web of social-cultural relations and political circumstances. Therefore, such microeconomic behaviours are not universal as anthropological analysis suggests 'neither world can be reduced to an externality' (Ortiz, 2012, pp. 73–75). My findings support the argument of Cross and MacGregor that patterns of such localised retail medical or healthcare businesses operate on small scales but survive in a very competitive marketplace. Such individual providers (e.g. pharmacy daktar in this thesis) build and persistently maintain principled relationships with their patients and customers by offering free and low-cost services. The exchange relationships in this context may not fit with the normative biomedical legality or legitimacy. Instead, it must be analysed with local economic morality where pharmacy daktars "meet local expectations of care or value for money" (Cross and MacGregor, 2009, p. 14) rather than the authenticity or efficacy of the services provided. Understanding 'efficacy' from a multidimensional perspective is necessary here. That is, in such a context that is under the pharmaceutical medicine market influences when we consider different kinds of prescribing practices are in place (as I showed they are), then there could be different kinds of efficacies such as biological, cultural or social etc. that impact the 'total drug effect' as Geest argued (van der Geest, Whyte and Hardon, 1996).

Moreover, the transactions and interactions by pharmacy daktars outside of the state legality are not essentially always unethical, as portrayed in popular biomedical literature. For instance, Kamat and Nichter showed that pharmacy sellers regularly refused to honour medicine

requests by new or unknown customers in urban India due to misuse that could trigger ‘risk of suicide’ (Kamat and Nichter, 1998). Pharmacy daktars, including those introduced in this thesis, also made conscious decisions not to sell prescription drugs or critical medicines to random customers. Instead, they did so only for long-term and well-known clients. Earlier in this chapter, I presented Rimon Daktar’s narrative of being conscious while dispensing sleeping pills and antidepressants because of misuse by youth connected with addiction and suicide risk concerns. I also observed pharmacy daktars making decisions about what they think is appropriate based on their experience and morals, and not profitability when they were confronted with self-medicating patients’ requests of them for multiple medicines and specific brands. In this way, I suggest, that pharmacy daktars position themselves as an ethical mediator between consumers and medicine producers. They also play the broker role between their patients and formal doctors or pathology providers (e.g. referring, accompanying and helping patients find better and affordable healthcare and medical services). Such ethical and moral mediating role of pharmacy daktars as ‘moral primary healthcare brokers’, is akin to what Cohen has called ‘bioethical brokers’ in healthcare. Cohen identified different types of brokers active in the healthcare market in India, such as debt brokers, tissue brokers, kidney brokers and medical information brokers who mediate the transaction between organ donors/sellers and receivers (Cohen, 2003). The biomedical authority, practice and economic transactions of pharmacy daktars in the unauthorised local health economy may not follow the biomedical ethical standard of doctor-patient interactions or consultation but rather operate under the moral economy of local demand from care seekers. In Bangladesh and similar contexts, they are “embedded in value systems and ethics of care” for their customers (Cross and MacGregor, 2009, pp. 14–15).

Conclusion

The role of pharmacy daktars in primary healthcare in Bangladesh has mutually opposed realities. They are integral to everyday healthcare interactions in the local cultural economy but remain unrecognised as legitimate practitioners. They also remain unregulated, making them confident to practice based on their experience and economic interests. As I presented above, this can lead to unintended consequences for healthcare seekers in terms of mistreatment or additional health costs. Since the public health systems remain dissatisfactory and the private health service unaffordable for most people, pharmacy daktars remain a popular choice of primary healthcare. The consequences of reaching out to the unauthorised pharmacy daktars are not unanticipated to most care seekers. They are also popular because healthcare seekers can easily buy repeat medication without a formal repeat prescription, and it is convenient for patients who need long-term medications. Such localised retail

biomedicines also reveal the political economy of health in the broader context of unstructured healthcare delivery, inequality of access, and regulatory gaps in the healthcare industry. The limitation of the popular understanding of the unauthorised providers is that these providers' illegality status is placed in the centre. Still, the nuance of their positionality and demands in the micro healthcare market are either ignored or not considered. As findings suggest in this chapter, unauthorised pharmacy daktars make their living by utilising profitmaking opportunities over patients' health, but many of them also work within their ethical boundaries in healthcare and the economic morality of care. Living within the community, in some respects, they hold a higher moral position in the eyes of care seekers by offering patients and customers more affordable transaction opportunities when the formal private sector remains challenging to afford. The unregulated activities by pharmacy daktars and negative impacts on public health also show the state's obscure role in recognising formal biomedical practitioners, corruption and loopholes in the government health governance and surveillance. Besides, pharmaceutical capitalisation in an unregulated medicine market and weak governance also proliferate the unauthorised biomedical authority of practice and unsupervised drug marketing. The drug companies work with pharmacy daktars and address them as 'doctors' despite pharmacy daktars' unrecognised and illegal status as practitioners. In the following ethnographic chapter, I analyse how pharmaceutical companies reach out to unauthorised pharmacy daktars and promote the testing and marketing of new drugs, consequently enabling and intensifying the overprescription of common drugs in the market. Pharmaceutical companies do this by using loopholes in state drug surveillance and poor implementation of drug policies.

CHAPTER FIVE: BIG PHARMA IN SMALL SHOPS

In this chapter, I analyse ethnographic evidence of the interactions and relationships between pharmaceutical companies and biomedical practitioners in Bangladesh. The relationship between formal physicians and pharmaceutical companies is well recognised in the existing literature. However, in my ethnography, I observed that pharmacy daktars are being used as a channel and agent in the medicine trade in two ways. The pharmaceutical companies incorporate retail pharmacy owners/operators (who practice and prescribe) as 'chemist-doctor' in their marketing domain, even knowing that pharmacy practitioners lack the authority to prescribe. Second is the growing market of unregistered chemical and medicine manufacturers that reach pharmacy daktars to market counterfeit and substandard products; many pharmacy daktars keep connections with them for profit. In part one of the ethnographic section of this chapter, I discuss how pharmaceutical agents apply their tactics in their interaction with practitioners (both formal and unauthorised) to increase sales by fulfilling targets. In the second part, I analyse pharmaceutical 'marketing cost' that includes 'gift/money' exchange for sale promotion and other factors influencing medicine price and quality.

Bangladesh pharmaceutical sector is one of the most uprising industries globally. The market size was reported as 3 billion USD in 2019 (Chaudhuri, 2020). As per the government report, the total export in 2019 was Tk.40909 million (DGDA, 2021). The Directorate General of Drug Administration (DGDA) is the sole government drug control and regulatory authority that permits drug manufacturing or producing organisations to register new drugs and issue drug price certifications and retail drug shop licenses. It also monitors the supply and quality of medicines and investigates illegal, fake or counterfeit drugs (DGDA, 2021). The drug control authority follows the 2016 National Drug Policy developed from the 1982 Drug Control Ordinance and its amendment in 2006 (Shah, 2020; DGDA, 2021). According to the latest report, among 280 pharmaceutical companies registered within the county, 209 drug manufacturers are currently functional. Between 2019 and 2020, 61 drug manufacturing licenses were temporarily suspended, and production and marketing were held-up for ten companies (DGDA, 2021).

Biomedical and public health studies have reported the interactions between pharmaceutical companies, doctors and retail pharmacy sellers (Babu, 2008; Ahmed *et al.*, 2017; Lucas *et al.*, 2019). Very few public health and social science studies have illustrated the strength and power of local and multinational pharmaceutical companies reaching out to unauthorised practitioners and operating improper marketing of medicines. The gift/money exchange issue for medical promotion is well identified in Bangladesh (Mohiuddin *et al.*, 2015). However, there

is a gap in the socio-cultural-economic analysis of ‘unethical’ promotional practices breaching state health and drug policy. Anthropological studies on the interactions between pharmaceutical companies and retail biomedical practitioners in Bangladesh are scarce. Engaging with the anthropological concept and theory of gift, in this chapter, I argue that the economic exchange relation between pharmaceutical companies and biomedical practitioners in the local cultural context is entrenched with the idea of bribing but substituted with the social gift-giving concept. I look further into why medicines remain unaffordable for many healthcare seekers and how price is determined. Besides a well-identified active market of counterfeit and substandard drugs, I explore how legitimate medicine producers also manipulate drug quality with support from the state's neoliberal free-market policies.

Pharmaceutical marketing and unauthorised pharmacy practitioners

Pharmaceutical companies reach physicians, prescribers and medicine sellers worldwide through their marketing agents (McNeill *et al.*, 2006; Fugh-Berman and Ahari, 2007; Dumit, 2012; Latten *et al.*, 2018; Khazzaka, 2019). In my fieldwork, participants commonly used the term Medical Promotion Officers (MPOs) as the designation of sales agents, although different titles were found active such as medical representatives (MR), pharmaceutical representatives (PR) or medical information officer (MIO). Consistent with other research (Shah, 2020), I have observed that the MPOs play the leading role in producing prescriptions consisting of specific company drugs and products, maintaining a direct trading relationship with formal physicians, pharmacy daktars, and retail shop owners. For the pharmacy daktars in retail shops, MPOs remain the primary source of ‘knowledge providers’ (Shah, 2020, p. 192) about common and new drugs and price updates. Despite their unauthorised status as biomedical practitioners, pharmacy daktars and operators also receive benefits from MPOs in addition to their regular discounted prices and complimentary gifts (Billah *et al.*, 2018; Shah, 2020). In the next section, I discuss pharmaceutical companies’ assessment of practitioners’ identity and authority relating to their interactions with unauthorised pharmacy daktars.

Pharmaceutical company view on practitioners’ authorisation

> “My job is to sell medicine, not to check who is a doctor or not” (An MPO, 2020)

As explained in the Introduction and Chapter One of the thesis, it is illegal to practice or prescribe or use the tile ‘Dr’ without authorised qualification (MBBS/BDS) in Bangladesh as per the state health policy and the order by the High Court (The Daily Star, 2021). However, the MPOs and pharmaceutical personnel ignore the existing legal provisions and consider pharmacy practitioners a doctor in regular business. As the MPOs and pharmaceutical

marketing managers mentioned, pharmaceutical companies consider pharmacy daktars as 'Chemist-Doctor' who hold minor course qualifications (e.g. Rural Medical practitioner/RMP) or have been popularly known as daktars (doctors). Such addressing is not present in business documents like *Chalan* (invoice), so it appears to be verbal only. Pharmacy daktars get various benefits from MPOs with regular business discounts on their orders for medicines. All the MPOs I discuss in this thesis echoed the same statement about this matter. They said that determining the practitioner's authority status is not their responsibility. As they explained, they do what they are directed to do: make sure that practitioners prescribe the products of the pharmaceutical company for which they work. When I asked Anik, an MPO, in an interview, he said, "It is not my headache who has or has not the certificate, degree or license. My job is to sell the medicines, not to check who is a doctor. I need to sell products." Through such a view, pharmaceutical companies hold a conflicting place against the national legal framework and state policy about identifying authorised biomedical practitioners when promoting their drugs and increasing sales. It is a direct violation of the state health policy and pharmacy council rules to consider unauthorised pharmacy daktars as prescribers by pharmaceutical companies and includes them in the list of 'doctors'.

Such informal markets of pharmaceutical medicines are massive in developing countries such as in Bangladesh (Van der geest, 1982; Lock, 1984; Ecks and Basu, 2009; Adams, Islam and Ahmed, 2015; Fittler *et al.*, 2021). Scholars have analysed such contexts as 'quasi-legal' (Whyte et al., 2002 cited in Shah, 2020, p. 193). In Bangladesh, Shah referred to such contexts as 'informal and complementary' to the formal sector, arguing that, "the informal sector actually provides the base of the rules of the formal sector to be more realistic" (Shah, 2020, p. 193). I argue that seeing pharmacy daktars to be located in the informal sector is problematic because it merges them with other informal groups like traditional healers or alternative practitioners, confounding their actual location and relationship with the formal sector. The term 'informal' for pharmacy daktars does not emphasise three significant health governance issues. First is the lack of pharmacy daktars' recognition and proper management as a supporting workforce and/or part of the referral system in the biomedical healthcare system. Second is the power of pharmaceutical corporations 'managing' the health authorities (I discuss this later in this chapter) and their aggressive marketing of drugs with and through the pharmacy daktars. Third is the loopholes in pharmaceutical governance by the state authorities and corruption among the public officials that allow pharmaceutical companies to operate 'unethical' marketing (see Chapter Six for more discussion). Pharmacy daktars are part of formal biomedical health market but remain unrecognised as legal due to lack of state authority and recognition as healthcare provider. However, pharmaceutical companies continue directing the MPOs to work with pharmacy daktars to increase drug sales because the number of pharmacy daktars are

greater, and so is their popularity in local contexts. In what follows I discuss how MPOs categorise and address different biomedical practitioners in their daily interactions.

How MPOs rank and address different biomedical practitioners

Pharmaceutical companies make their own 'marketing categorisation' of medical practitioners based on degree or qualification, specialisation and popularity. MPOs in urban and rural areas in this thesis categorise biomedical practitioners into three broad segments based on several factors. MPOs regard professors/experts in tertiary medical colleges/hospitals with specialisation as the most honourable practitioner and need prior appointments to reach them. Second are the MBBS doctors, also known as general practitioners (GPs), with whom the communication for MPOs is comparatively less restrictive. The MPOs reach the MBBS doctors in public service at their private practice chamber since many also practice in private hospitals, clinics, and retail pharmacies. MPOs address these two categories of practitioners as 'sir'. Previously Shah also mentioned these two types; category A physicians are famous among the patients and usually remain occupied; hence, they ask for a 'table visit' (group appointment) before visiting MPOs individually. Shah also noted category B means less popular, and MPOs can get more time to spend with these practitioners (Shah, 2020). In my observation, I found Chemist-doctors (pharmacy daktars) to be positioned at the bottom of MPOs' ranking of biomedical practitioners because they are easily accessible in their shops and have more interest in offers and information provided by MPOs.

The interactions of MPOs, including their physical and behavioural gestures in conversation and relationship, differ with each of the three categories of practitioners. The MPOs have a more casual and friendly relationship with pharmacy owners. In their formal and informal interactions (e.g. conferences on pharmaceutical knowledge dissemination and training programs for retail practitioners), MPOs address them as *daktar shaheb* (Shah, 2020, p. 192) or *shab,* which implicitly translates 'sir' in English. Although, I also found that some MPOs think addressing 'sir' is unnecessary for pharmacy daktars, as they do not hold that legal or significant qualification like MBBSs. Some MPOs in my fieldwork it is devaluating their status to address pharmacy daktars as 'sir' because they have higher educational qualifications than the pharmacy practitioners. They focus on academic status regardless of the age difference between a pharmacy owner and an MPO. In most cases, a position for MPO requires a master's degree and, in some cases, minimum graduation.

Figure 23: A pharmacy daktar and MPO discussing medicine order and transaction balance

On the other hand, most pharmacy daktars have below secondary education in most cases (the highest I found is a bachelor's degree holder who was a former MPO). As MPOs reported, often, they are not regarded with honour in their job by their clients among pharmacy daktars. One of the MPOs said,

> "Educated people know how to show honour to a person. Though we know some big doctors also behave rudely with MPOs, we can still accept that because they are too busy with patients and sometimes get annoyed with too many things, such as incessant visits from MOPs from many companies. However, the pharmacy daktars most often do not show respect to us. I am a master's degree holder, and he (an RMP pharmacy doctor) has completed grade eight only. He sometimes asks me to bear his teacup from the tea stall for him, and I have to do it because I need to get his medicine orders. I sometimes wonder about the value of my degree in this job. Sometimes they treat us like a deliveryman. Still, we need to build good relationships with clients like him as he is popular and has many patients in hand."

Nevertheless, MPOs need to work with all types of biomedical practitioners because practitioners are in a position to generate prescriptions for company drugs and increase sales. Though the nature of working techniques is culturally contextualised in the actual fields for MPOs, the pharmaceutical intentions and working agendas are almost universal across the globe. The goal is to build a close professional relationship with medical practitioners and retailers to encourage them to prescribe company medicines and increase sales at retail levels. The following section presents how MPOs apply techniques and strategies to increase sales in their interactions with practitioners, including those unauthorised pharmacy daktars.

The MPOs as 'detective or psychologist'

In pharmaceutical marketing, MPOs are the key persons trained to reach practitioners and drug sellers at all levels to attract their company's medicine in various ways (Arafat *et al.*, 2016;

Mohiuddin, 2018). Explaining the drug literature/sales aid (information brochure/leaflet) about the benefits of a drug is the conventional way to contact the practitioners. However, they also offer complimentary gifts (in kind or money transferred) to the practitioner to get their interest and produce prescriptions. MPOs need to work with an unconventional schedule, as they need to maintain timing with physicians' availability. In line with the previous reporting, I also observed that MPOs visit physicians during the daytime and pharmacy daktars in the evening. However, sometimes they also visit formal doctors at midnight; I found the latest night visit at 2 am in a private hospital. Such schedule maintenance with physicians' routines makes MOPs work from early morning to midnight on most days (Arafat and Ahmed, 2016; Shah, 2020). MPOs are experts in building a friendship with their clients. To understand a practitioner's interests, MPOs need to study physicians' behaviours, personal life, and pharmacy daktars that are embedded in MPOs' job duties.

Figure 24: MPOs' motorbikes in front of retail pharmacies at night around 10 pm in an urban street near hospitals in Dhaka City. Photo: Nur Newaz Khan

MPOs collect, relay and keep every detail of a medical practitioner's interest and lifestyle. They not only collect information about the physicians but also their family members' details. For instance, as one of the MPOs mentioned to me,

> "I know the doctor has an 8-year-old son, so I took an aeroplane toy and told him to give it to his son. That worked like magic! I do not need to provide for him; instead, I give gifts to his wife or son that make him happier. He writes two specific products regularly produced by our company. I remember which colour attire he likes and what size shoes he wears. We need to know more about them than their wives do! Even they can forget their marriage anniversary or birthdays, but we can tell that too. This is because you need to keep this person interested and happy with your attitude so that he/she can write you company medicines. As you can see, we need to be like a detective or even psychologist in this case to understand practitioners' behaviour, tastes, interest and personal life!"

Although such responsibilities are not mentioned in their job description, MPOs must do additional circumstantial work to collect information about physicians' backgrounds, medical

networks, and retailers in workstations. Practitioners' personal lives and interests are important to MPOs. This is also consistent with Shah's work, as he previously noted that "personal information may be more important than prescribing preferences" such as their birthday or marriage anniversary or even their political affiliations (Shah, 2020, p. 204). The MPOs are recruited for their "presentability and trained to be observant, personable and helpful" (Fugh-Berman and Ahari, 2007, p. 0621). However, they are also trained to track practitioners' personalities and personal life interests and use them to "manipulate perceptions about both the drug rep and the drugs they sell" (Fugh-Berman and Homedes, 2018, p. 318). Such camaraderie and cliental relations between MPOs and medical practitioners are based on a reciprocal exchange of terms and conditions. In such relation, 'friendship' is not societal but commercial; as Fugh-Berman and Ahari rightly noted, "at the most basic level, everything is for sale, and everything is an exchange" (Fugh-Berman and Ahari, 2007, p. 0621).

A significant observation in my research is the gender-based differences in pharmaceutical marketing jobs. The job sector of medical marketing and sales is a man-dominated arena, and women are generally not seen much in this profession. Participants in the MPO category in this thesis mentioned that although the number is still insignificant, women are coming forward to this profession. I met one woman, MPO, working in a leading company in urban Dhaka. According to her, women have to face more challenges in this profession from family, society, and the working environment. She shared that families do not well appreciate the MPO job as it requires frequent travel and often working late at night. Women MPOs are often asked to do unethical things like going on a date with doctors or offering sexual services to prescribe their company medicine. They request their male colleagues for support and tackle the matter in such instances. She finds such behaviour from physicians and prescribers very unethical, which also hinders the goal of the job. In my fieldwork, I found one female MPO's narrative, which signifies the demand for further research exploring gender-based experience in the medical marketing sector. MPOs work with similar job descriptions regardless of gender or qualification, maintaining close contact with prescribers and medicine sellers. Previous studies have stated that MPOs must keep track of practitioners' prescribing patterns and follow the scripts (Fugh-Berman and Ahari, 2007; Shah, 2020) to ensure their medicines are being prescribed and dispensed in the retail shop. I detail next that although the MPOs track prescriptions, they also work under constant surveillance by pharmaceutical companies.

Pharmaceutical panopticon: Practitioners and MPOs under surveillance

The pharmaceutical surveillance process of medicine sales works in three stages: first, MPOs request practitioners write company drugs. Then at the practitioners' chamber, MPOs ask patients to show them the prescription after consultation. They take photos of the prescriptions

and relay them to their company supervisors to confirm their products are written. They use smartphones to do that and send such evidence to their supervisors via mobile application (usually WhatsApp) or along with their daily reports via emails. Finally, they also track prescribing trends among pharmacy daktars and sales at retail pharmacies.

Figure 25: MPOs taking photo of a prescription in a Union Health Sub-Centre in the rural site

MPOs have different layers of supervisory surveillance of their daily activities and digital reporting of their sales record via smartphone applications. An area manager usually briefs MPOs about daily routine jobs and monitors their infield activities using mobile/GPS tracing applications (Shah, 2020). As an MPO told me, “if anyone could not fulfil the target (sale), there are people from management who will warn; in fact, they misbehave and threaten to terminate the job. Sometimes MPOs lose their job”. Such monitoring, I argue, acts as a pharmaceutical mobile panopticon and surveillance (Foucault, 2008; Khazzaka, 2019) over MPOs’ daily movements by the company. To reach the company target and keep their job, MPOs take unconventional strategies such as providing personal services to practitioners and offering an unusual discount to pharmacy daktars. Such efforts work in two phases simultaneously. On one side, MPOs convince both authorised physicians and unauthorised pharmacy daktars to generate prescriptions with their company products to increase sales of their drugs at retail levels. On the other side, they also convince retail pharmacy daktars/owners/operators to order medicine lots in addition to their everyday needs. In the latter case, they offer extra discounts to get those medicines sold. I next discuss how MPOs’ strategies and marketing techniques with pharmacy daktars and retailers’ demand for benefits can result in overprescribing and the unnecessary dispensing of medicine.

Target sales, MPOs’ strategies and overprescribing/over dispensing

According to the pharmacy daktars and MPOs, retailers usually get a regular discount on medicines orders that vary from 10 to 14% on the maximum retail price (MRP) labelled on the

pack. However, MPOs offer (vice-versa pharmacy daktars also demand) more benefits for different medicine ordering out of the usual. This happens when a pharmacy operator agrees to buy a certain quantity of drugs as requested by MPOs, who might struggle to reach their monthly sales target. In such cases, usually at the end of months, MPOs provide an extra two or three percent discount to the pharmacies out of the official *challan* (invoice) ordered, what they term as "*Challan Discount*" or '*Chalan* Commission' (one-time discount/payment on fixed or extra sales orders). The company is either not informed or officially overlooks this discount. The discounted amount of money is spent from MPOs' pockets that they adjust with their monthly/quarterly incentives (if they achieve the given sales target) to show their target achievements and survive in the job. Since the pharmaceutical market is very competitive with many companies active, retail pharmacies and pharmacy daktars also demand cash from MPOs otherwise refuse to do business as they can have many options for medicine brands available.

'Cutting Hand Cash': demand from pharmacy daktars

As MPOs in this research mentioned, authorised and unauthorised practitioners demand money or gifts directly. Pharmacy daktars, in particular, ask for a fixed percentage as cash every month from MPOs or deny continuing business as they can get the same medicine brand from others. MPOs often have to set a deal with a retail pharmacy called 'hand cash cutting' to keep clients constant. This cash is separate from the regular discount provided by the companies. The following statement from one MPO can give an overview of such contexts; he mentioned,

> "Let's say I do business with you (a pharmacy daktar/retail pharmacy) and have a regular sale deal of one lakh taka. The deal is that you have to cut 2 or 3% hand cash every month. Suppose I do business with you for one lakh. Now, 3% of one lakh is Tk.3,000. I have to pay that Tk.3,000 to the pharmacy owner; otherwise, he will not give me the business. Not going to sell my product. He wants it from me. Now I have to give cash or deduct his payment amount as an extra discount. That means the pharmacist wants it from me. The company will not give that money. They want it from MPOs. They say, 'If you want the business, you must fulfil my demands.' Now I have to do it to keep my job and lose my income from the tips/incentives (commission on target sale from the company)."

As reported, in a few cases, MPOs even needed to borrow money from a traditional moneylender with interest and pay the company showing the medicines sold in the invoice to reach their target. As another MPO shared,

> "I know MPO who even borrowed money from a traditional moneylender with interest to pay the company when products remain unsold. Then he sold the remaining products later. He had to pay 5000 interest to the lender just to keep

> his commission on target sales from the company. He lost that amount from his incentives and continued doing business like this."

Through such strategies, MPOs are losing money from their total income but can show their performance to the company to fulfil their sales target. Generally, MPOs have to work beyond the international standard work hours standards[48] (Messenger, Lee and McCann, 2007; Lee and McCann, 2008) with a regular/fixed salary. In addition, such income loss and the pressure of target sales and practitioners' demands make the work conditions overwhelmingly stressed for MPOs. A question then remains, why and how MPOs continue in such a profession despite such tremendous pressure? In what follows, I discuss that, apart from entitled job benefits, MPOs undertake specific strategies to display performances to their company and compensate for their income loss or even manage extra income.

'Unsold but sold' medicines and *kata pata*/box (samples)

MPOs often face the 'unsold lot' problem when they cannot sell all the medicines to reach their monthly sales target set by the company. Although for some MPOs, unsold medicine is an obstacle in meeting target sales, many find a way to make that an opportunity and recover their income loss. They fill the gap in sales records by adding money from their own and showing that in the official record as the sold. They stock the unsold medicines and later sell them in suburban and rural retail shops (smaller enterprises) at a lower price to compensate for their loss. Such unsold medicines also include undistributed samples for physicians. The MPOs usually term these as '*kata pata* or box as sample medicines generally come as cut strips in boxes. As per pharmaceutical tradition, MPOs usually provide sample medicines to physicians/practitioners for trials among patients and then prescribe the same drug regularly. Almost all the MOPs in this thesis reported that many practitioners are reluctant to receive sample drugs and more interested in taking gifts or money. Such tendencies result in MPOs manipulating the sample distribution process, keeping some in their stock and later selling them to retail shops. One MPO explained the matter this way,

> "Sample medicines are for the doctor, but some MPOs do not provide all the samples but report as provided to the company. Actually, they partially provide samples to the doctor because doctors are not interested in samples these days. So they keep some *kata oshudh* (sample medicines) in their stock. When it gets bulk after a few months, they sell those to semi-urban and rural retail shops for half or lower price than usual. In this way, some make more income."

[48] To see more about international standards of working and overtime hours on ILO website: https://www.ilo.org/global/standards/subjects-covered-by-international-labour-standards/working-time/lang--en/index.htm

Such techniques are a reaction to stressed working conditions and extended working hours with fixed income. Research papers have commented on the nature of MPOs' work and job satisfaction related to misbehaviour toward them from company managers, restrictive leave policy, day-night working hours, strict timing of work, and rude attitudes from the physicians as well as pressures surrounding target sale requirements (Arafat *et al.*, 2015; Rahman *et al.*, 2015; Arafat and Ahmed, 2016; Shah, 2020). However, no concrete information regarding salary and non-salary benefits is available to MPOs. According to the website Salary Explorer which collects related data worldwide, wages for a pharmaceutical sales representative in Bangladesh range from a minimum of Tk.10,500 to a maximum of Tk.36,300 monthly, depending on their qualification and experience.

Figure 26: A pack of physician sample drug available in retail pharmacy.

Usually, the qualifications required for an MPO position requires varies from higher secondary to a master's degree. The average salary is around Tk.22,800 per month[49], including other housing and transport allowance benefits. There are provident funds and medical allowance included for permanent positions. Education and experience are two major factors determining the difference in their starting salary. Companies sponsor a motorbike for each MPO for their work and deduct the price from their salary as monthly instalments. Depending on their experience, sales performance, and company policy, MPOs also get monthly or quarterly incentives on their total sales, ranging from Tk.5000 to 15000. For MPOs, the promotion of job positions depends on target sales achievement and a good network with clients. Pharmaceutical companies consider all these benefits entitled to the job position as competitive compared to the qualifications and skills required, but MPOs reported that their

[49] According the website, education and experience are two major factors that determines the difference in starting salary. For instance, for a person with bachelor's degree, the average salary is Tk.13,900 per month while that is Tk.26,800 per month for someone with a master's degree completed. To see the latest data visit: http://www.salaryexplorer.com/salary-survey.php?loc=18&loctype=1&job=11863&jobtype=3

income is not good enough compared to their workloads and stress attached. This leads MPOs to find a way to earn from sample medicines, albeit selling physicians' samples is prohibited in pharmaceutical regulations. Pharmaceutical marketing managers are aware of such practices but often overlook such incidents unless reported or found in field operations. One marketing manager in this research who started his career as MPO and was promoted to area sales manager explained,

> "We know MPOs keep unsold medicines or undistributed samples and sell them later. This is not allowed, but managers often overlook this matter as they also know this can give them a way to recover their loss in monthly targets. Some can even earn a little more than their salary. Many managers also had a similar experience when starting their job as an MPO in this industry."

As presented above, the working strategies of MPOs and their relationships with pharmacy daktars, besides formal doctors, show that retail pharmacies are a significant hub where pharmaceutical marketing terms and conditions are negotiated outside the conventional rules (e.g., considering pharmacy practitioners as 'chemist-doctor'). My findings suggest what medical anthropologists in other contexts argued that pharmaceutical activities are 'negotiated and reactualized' in retail pharmacies (Hardon and Sanabria, 2017, p. 124). According to the MPOs and pharmacy daktars in my research, whereas all the sectors have suffered since the COVID-19 pandemic hit in early 2020, the medicine business thrived with supplies and hikes in wholesale prices. Stocking medicines became a trend where medicines would be held to sell later for a higher price. Some MPOs made a good profit by selling their stock of sample medicines during this time. Besides the practitioner-target promotions, such push sales in retail pharmacies can result in unnecessary prescribing by the practitioners and over dispensing of medicines in shops. Practitioners' interest in gifts or money provided by pharmaceutical companies for drug sales is the most known but less analysed factor in health and medicine in Bangladesh. I discuss my findings in this regard in the next section.

Marketing cost, gift/bribe for practitioners and medicine price

Pharmaceutical marketing and MPOs' interactions with practitioners involve different forms. Such forms include visiting doctors personally and providing literature (information pack) with samples, medical tools, or personal items as gifts, sponsorship of higher studies, research or drug development (Wazana, 2000; Sah and Fugh-Berman, 2013), funding of training, seminars or even personal entertainment trips (McNeill *et al.*, 2006; Khazzaka, 2019; Shah, 2020). Gift exchange relations and practitioner centric marketing are universal worldwide, regardless of the country's economic status. For example, 84% of marketing activities by pharmaceutical companies in the USA are centred on medical practitioners (Marco *et al.*, 2006). This is also the most contested issue in both the academic and applied field of medical-pharmaceutical

studies. Different types of interactions have 'distinct features and characteristics' of gift exchanges circumstance (Latten *et al.*, 2018). In Australia, a 2006 study reported that 15% of 823 surveyed specialists requested 'financial support' from pharmaceutical companies (and vice-versa) for their professional development and personal activities such as educational events and conferences, donations and funds for research and even travel. The study also reported that among these 'gifts, ' travel funds had significant 'biasing' effects on physicians' clinical judgements (McNeill *et al.*, 2006). In Argentina, as Lakoff pointed out, gift exchange aggravates physicians' 'conflict of interest' with their moral responsibilities to patients contrasting obligatory reciprocity to the pharmaceutical companies eventually may affect their professional honesty (Lakoff, 2006, pp. 114–116).

In Bangladesh, gift exchange between pharma companies and medical practitioners is a more culturally normal phenomenon. For instance, the power of pharmaceutical companies can be presumed from their recruitment circular for MPO positions, where they directly mention "to visit doctors and generate prescriptions from them" as the required job duties. In what follows, I present my findings that reveal the scale and ranges of such exchange between pharmaceutical companies and practitioners in contemporary Bangladesh.

The extent of practitioners' benefits

"You better list what we do not provide" (An MPO, 2020)

MPOs are directed to meet any demand or do whatever it takes to convince the practitioners, including unauthorised pharmacy daktar at retail shops, to prescribe and dispense their drugs. In my research, one of the pharmaceutical marketing managers mentioned,

> "…from a pen to the grocery for the family; from money transfer to home appliances or even children's education cost; from brand attire to holiday trips or desired personal services; companies can provide everything. You better list what we do not provide!"

Another MPOs mentioned that he regularly provides transport services to a physician. He said,

> "Besides gifts, I also pick him up every morning from his residence and drop him at the hospital where he works. Then I go to my work destinations. In return, he writes drug from the company I work for".

Among the care seekers and MPOs in my research, nearly all of them echoed that the exchange of gift and money between the practitioners and pharmaceutical companies is 'unethical'. Some of the formal doctors considered this 'unethical' too and noted that such 'unethical' practices are actually much more prevalent among the physicians working in the public sector who also practice in private facilities. I met Dr Siam, a public physician

in a government medical college. He shared his knowledge of discovering such relations between physicians and companies. He mentioned,

> "I know one of the physicians in a district hospital got a luxury private car from a company worth Tk.65 lakh. I said I knew him from the same hospital I first joined. He is now obliged to write three specific medicines of that company's brands for the next 12 years. We also learned that another popular doctor has a habit of getting escorts (call girls for sexual services) from the pharmacy company, each week a different one! I know that pharmaceutical companies also supply vehicles and food for political campaigns as demanded by the civil surgeons (head of health at district level)."

Pharmaceutical companies' sponsorship of medical education and higher studies is prevalent worldwide, including in developed countries with solid pharmaceutical laws and regulations. For example, Roy showed that it is 'not unusual' in Australia that pharmaceutical sponsors of medical education programs or professional events are allowed to suggest speakers and topics, and physicians may be "in the dark" about such sponsorships (Moynihan, 2008, pp. 416–417). Goyal and Pareek argued that in India, "there are hardly any meetings, seminars or conferences held without funding from the pharmaceutical companies" (Goyal and Pareek, 2013, p. 58). Pharmaceutical corporations are one primary source of pharmaceutical knowledge and financial contributors to medical learning. However, funding for medical professionals is promotional and comes with purposive prescription generation. Discussing the role of the US Food and Drug Administration in this regard, Kessler argued that the promotional financing of medical education "can undermine the unbiased exchange of scientific information and raise questions of professional ethics" (Kessler, 1991 cited in Goyal and Pareek, 2013, p. 58). Researcher-physicians also receive money for their clinical trials and scientific publication in exchange for writing company drugs in the prescription. Elliott argues that this eventually can affect doctors' clinical judgement and make patients suffer more (Elliott, 2014). In Bangladesh, this is more visible and openly practised. Previously, Shah noted, such exchange relationship as 'Open Secret Practice' has been institutionalised on the practical ground (Shah, 2020). No participants in my research thought this was a problem from an ethical point of view. Instead, they find that such sponsorships are edifying to their knowledge and helpful for their career. Nevertheless, the pharmaceutical company organisers determine everything, such as the venue of the training/seminar, materials, and trainers arranged for unauthorised pharmacy daktars.

MPOs in my research also mentioned that they also target medical students as future doctors. They offer sponsorship to final-year medical students and intern physicians for higher education with a conditional agreement that they will prescribe the company medicine for a certain period upon completing the degree. Such interactions are also common in countries with stronger laws and regulations. For instance, Masowska noted that physicians and

students in the USA and Poland communicate with pharmaceutical representatives and receive gifts (Makowska, 2017). In countries like Bangladesh with poor legal implementation, such practices thrive more. A 2016 survey reported in Bangladesh that pharmaceutical companies are active donors of funds for education and medical logistics, providing support to students of different academic years. Many students are unaware that such gifts or sponsorship can influence their prescription practice in the future. The survey also reported that many students directly interact with pharmaceutical companies in medical schools, as the management does not provide adequate guidance for students on how to interact with corporations (Biswas and Macer, 2017). Similarly, companies offer pharmacy daktars funding for specialised short courses (e.g. on child health or reproductive health) provided by public and private organisations having the deed to prescribe and dispense specific company drugs.

In the context of my ethnographic research, the offerings and efforts by the companies to convince health practitioners about their products can be seen as Bourdieu's 'good-faith economy' concept where 'the undisguised self-interest economy', as he noted, is required to dedicate plenty of time obscuring the truth of economic acts since it spends in accomplishing them. As he noted, 'the objective workings of the economy' could be exposed by the simplification of transactions (Bourdieu, 1977, p. 172). Oldani engages this idea of Bourdieu to explain that the pharmaceutical industry maintains 'a feel-good economy' for doctors and medical representatives to coincide, where prescription decisions can be grounded on 'other criteria' than the quality/effectiveness of the medicine (Oldani, 2004, p. 143). These other criteria are patterns of exchange of medical and non-medical gifts that are also evident in my research. As I have presented, the nature and patterns of pharmaceutical gift exchange activities in Bangladesh are similar to what Oldani says, that it is a 'paradoxical healthcare economy' where the economic exchanges and transactions between companies and practitioners are meant to be 'all about the patient, while simultaneously not about the patient at all' (Oldani, 2004, p. 143). Receiving such benefits, gifts, or money in exchange for company-driven prescription and drug sales is considered morally wrong but embodied in cultural practices as a common phenomenon. I discuss the issue in the next section.

Cultural silence and appropriation of 'immoral'

"Nobody knows nothing!" (MPO and MBBS doctor, 2020)

Physicians, in many contexts, in their formal encounters (e.g. responding to research or press), consider gifts as 'unethical' (Khazzaka, 2019), but they still ignore the law as either there are no strict regulations or implementation of policies by the state (Makowska, 2017). I observed that unauthorised pharmacy daktars are more open about their relationship with

pharmaceutical companies than formal physicians. In my research, most of the registered and formal physicians were reluctant to admit to having gifts or financial benefits from pharmaceutical companies. However, during my interviews with practitioners, I observed MPOs visiting them and offering gift boxes. I found practitioners' practice rooms decorated with gifts such as showcase items, prescription pads, mugs, diaries, calendars, key rings, pen holders, bags, paperweights, umbrellas, photo frames, etc. The open display is more prevalent in private hospitals, clinics, and retail shops. Yet, in the formal interviews, almost all registered physicians mentioned they only received medical information packs and small gift items that come with sample medicine packs, such as pens or pads. According to one pharmaceutical area sales manager (working in 4 districts), it is rare to find doctors who do not accept or ask for gifts and money from MPOs. As he said,

> "Consider this calculation. There are 350 postgraduate doctors listed in only one of my work zones, a suburban town in this district. It is only the list of private chambers, not from medical colleges. I have sorted out from this list that only 15 to 20 doctors are good. Good means they do not take anything from the company. They will take nothing unethical, even if we try forcing them. Even if we try to give them a simple pen, they will say, 'sorry, no need, I have my pen.' However, all the rest get regular benefits such as money, gifts, or bigger deals."

During my fieldwork, I interacted with six doctors within one week, and none accepted such exchange relationships. However, I already knew from the MPOs' interviews that, among 50/60 formal doctors and more than 200 pharmacy daktars within the district, all received gifts or money from different companies. In my research, I encountered 17 formal physicians (MBBS and specialists), and only two were found to accept no benefits from pharmaceutical companies. However, those two doctors mentioned that practitioners who do not participate in such a gift-receiving culture face exclusion from their cohort or have less social acquaintance among practitioners or in their medical society. They also find less number of patients in their chambers at private facilities because pharmaceutical companies strongly influence the clinic or facility owner and control patients going to different doctors' chambers. As one physician in my rural site said,

> "They have the power to make you popular or unpopular depending on your relationship with them. They sponsor medical equipment in this clinic, so the management listens to them and guides patients to doctors' chamber unless patients express their choice directly."

In the following interview with one MPO, I shared this and asked about physicians' denial of the fact. He answered that this is almost culturally legalised, as there are no concrete guidelines or policy implementation about doctor-pharma relations. He said, "everyone knows and considers this justified. They will not admit it if you ask them. It's like everyone knows, but nobody knows nothing!" Such denial from physicians has also been noted by anthropologist

and former pharmaceutical representative Micheal Oldani, who states, “the most comical thing is doctors’ attitudes. You will never hear a physician say, ‘This is influencing me.’ They are just so arrogant and naïve” (Oldani, 2004, p. 325). In this research, healthcare seekers and MPOs consider such tendencies ‘immoral’ for a practitioner. Most formal physicians believe this part of the work culture is normalised in the medical practice domain. The concept of normalisation refers to the social processes through which concepts and practices considered outside of social norms become accepted as ‘normal’. Thus, normalisation occurs through strategically constructed discourse that ‘become–or are strategically assumed to become–part and parcel of mainstream or common thinking’ (Krzyżanowski, 2020, p. 435).

The cultural silence on gifts (in other ways, bribe) exchange between health practitioners and pharmaceutical companies in Bangladesh is one such example of normalisation of ‘immoral’ practices in healthcare as the participant in this research mentioned. Like in many countries around the world, I argue, such ‘immoral’ practices are accepted with silence from the state authorities and appropriated by the practitioners in the healthcare culture in Bangladesh. One significant fact I find interesting is how the terms ‘gift’ and ‘bribe’ are used in explaining the concept of exchange and reciprocity in such economic ties and how these are analysed in previous social and anthropological studies. I discuss this in the next section.

Gifts, bribe, speed money or marketing investment: how to define ‘exchange and reciprocity’?

It is well recognised that MPOs offer different benefits, and practitioners receive those as “honorarium” (Shah, 2020, pp. 208–214). However, pharmacy daktars, even those who prescribe in written form, generally do not get the same ‘honour’ as formal doctors, such as addressing as discussed above. As a pharmacy daktar in my field summarised the matter this way,

> “They (Pharma companies) give us smaller gifts like pens or pads or maybe a one-time extra discount, and this is not *ghush* (bribe). Formal doctors, popular specialists, and big wholesale traders get larger gifts like fridges, air conditioners, car and festival clothes, or regular heavy money. If you like, that can be *ghush* because it’s a huge matter.”

This example refers to the complexities in literal meaning and differences denoted in two concepts in pharmaceuticals-practitioners interactions: gift and bribe. However, while unauthorised, some pharmacy daktars who are popular in the locality or high prescribers receive high-end gifts or additional benefits. Healthcare seekers in-group discussions revealed that people are aware of gift and money exchange relations between formal physicians, unauthorised pharmacy daktars and pharma companies. There are phrases and idioms in local

culture indicating the immorality of the professions. People say doctors are *Kosai* (butcher), and pharma companies are *dakat* (dacoit/robber). Previously Shah noted that the free market economy and the drug market's corrupt governance had pertinence the drug manufacturers to work freely and take whatever strategies they needed to increase their sales. In his book, Shah mentioned,

> "This practice of the pharmaceutical companies entails two issues. Firstly, some companies are rather obliged to offer gifts or cash payments to the physicians, otherwise, their products will not be prescribed, and hence products may not be sold on the market. On the other hand, some companies pay willingly because they want to persuade doctors to prescribe their products as much as possible. The management of these companies does not perceive this behaviour as illegal or unethical; rather, they consider the same as 'investment'." (Shah, 2020, p. 208)

Such circumstances also create demands among practitioners for unethical' expectations: gifts or money. The irony is that practitioners also use the word 'investment' in their perspectives and justify their exchange relations with pharmaceutical companies. Considering the high cost of medical education in Bangladesh, formal doctors often explain their gift-receiving tendencies to recover their invested money. As a formal doctor in this thesis mentioned, many medical students had to spend a great deal of money, even by selling family property or loans, for their medical education. The benefits from pharmaceutical companies and higher consultation fees in private chambers work as 'investment' recovery mechanisms for doctors. In addition, doctors also justify these as ways to meet living standards, such as luxurious apartments or better education for the children. Healthcare seekers and consumers in my research think health and medicine is an environment where individuals start with moral education but end with a profiting mentality. Such evidence is consistent with what Shah has noted about public physicians who perceive little gifts like pen or pad or transport services as "only meet the meagre needs of the profession" (Shah, 2020, p. 216).

Such a view is universal around the world. King and Bearman noted that in some states in the USA, pharmaceutical companies are required to report disclosure of their marketing expenditures. However, the law "typically exempted small gifts, reimbursements for clinical education, remuneration for conducting clinical trials, and drug samples." (King and Bearman, 2017, p. 154). Thus, the gift restrictions were considered futile as "even small gifts can create unconscious biases"; therefore, exempted items should be publicly disclosed to reduce prescribing rates of new drugs (King and Bearman, 2017, p. 154). Katz, Caplan and Merz argued that viewing gifts as "small tokens" and part of the "cost of doing business" by pharmaceutical companies "is disingenuous and a transparent attempt to be nonjudgmental" (Katz, Caplan and Merz, 2003, p. 42). Paris argued that gifts should not be categorised as large or small because "a gift is a gift" (Paris, 2003). Fugh-Berman and Homedes stated that

gifts do not matter, small or large, and can influence social relations and create a "subconscious obligation to reciprocate" (Fugh-Berman and Homedes, 2018, p. 318).

In such a reciprocity process, health practitioners fulfil their obligations by favouring the drug representative by shifting their prescription habits (Fugh-Berman and Ahari, 2007; Sah and Fugh-Berman, 2013). Sherry argued that the distinction between gift and bribe is crucial in international marketing consumer research, but "each is occasionally mistaken for the other" and business corporations have successfully exploited such blur conceptions in transcultural contexts (Sherry, Jr., 1983, p. 160). Apparently, such gift-giving relationships remain informal and unofficial, but pharmaceutical companies keep their budgeting records. One of the marketing managers in this research mentioned that such transactions are maintained by the MPOs and recorded under general 'marketing cost' in their official ledgers without disclosing the receivers' identity and details.

Nevertheless, such gift-giving differs from what anthropologists have explained based on Marcel Mauss's analytical frame on gift exchange as an economic system. For instance, reciprocity, spontaneity and inalienability as core concepts in Mauss's gift-giving can be maintained differently in pharmaceutical gift exchange (Polese, 2008). Reciprocity could be associated with bribing in different contexts (Tanzi, 1998; Sissener, 2001; Haller and Shore, 2005; Muir and Gupta, 2018). I suggest in this thesis that in gift-giving relations between pharmaceutical companies and practitioners, 'obligation to reciprocate' in Mauss's analysis becomes 'demand' in business between givers and receivers. I argue such gifts are not related to spirituality but instead perpetuated with pure rational exchanges of values in different forms: gifts or money for producing prescriptions or increasing drug sales. The nature of the spontaneity in Mauss's concept is lost in obvious expectations and forces reciprocation by the gift receivers, and thus in some contexts, "the enigma of the gift can also be the enigma of the bribe" (Polese, 2008). Thus, a gift in the pharmaceutical company-client business is not just a gift but a demand with a fixed choice (prescription and sales) to reciprocate or return the favour (Wazana, 2000). The tactic is to make gifts feel different from bribes by making them personal for practitioners; as Oladni pointed out, "bribes that are not considered bribes" is the principle of pharmaceutical gift-giving (Elliott, 2006). Thus, companies offer gifts to physicians, practitioners and pharmacy owners in such approaches that they do not feel 'they are being bought' (Elliott, 2006; Fugh-Berman and Ahari, 2007).

In the popular understanding of gifts and bribes in Bangladesh, a demarcation is present in analysing public and private, formal and informal economic transactions. As mentioned by the research participants, in current cultural understanding, bribing means giving money as an illicit payment to someone to get any specific work done. Such transaction is also known as

‘speed money’ (Sheperd, 2009) to make any process faster or access any service (see Chapter Six for more discussion). On the other hand, a gift is any material thing or money as a sign of friendship or social bonding. For instance, a physician in my research mentioned, “I do not ask for it; they give it as professional bonding in business as a token of appreciation because I use their medicine for my patients.”. Such a perceptive view is similar to Polese’s analysis, “If I receive it, it is a gift; if I demand it, then it is a bribe” (Polese, 2008, p. 47). In such transactions, the size of gifts or money is also a determinant of the strength of the relationship as gifts to individuals related to status and ranking of ‘high prescriber’ or ‘low prescriber’ in pharmaceutical company categorisation. As I showed evidence above, a high prescriber may receive personalised and expensive gifts or a larger amount of money (Fugh-Berman and Ahari, 2007). A low prescriber may be associated with ‘a temporary or permanent absolution from giving’ (Sherry, Jr., 1983).

I argue that the concept of gift-bribe in literature suffers from generalisation. The problem with popular understanding is that it limits the actual context of the transmissible nature of gift and bribe as the intertwined practice where the notion of gifting is manipulated and acts as a bribe without recognising it as a bribe. Even existing social science and anthropological studies in Bangladesh follow such demarcation. For example, in his ethnography, Shah viewed *ghush* (bribe) as a means for MPOs to access physicians’ rooms or a patient giving money to a doctor’s assistant to get an early appointment. The same is noted as bribing when any person offers money to a public or private service provider to get the service quicker or even a job (Shah, 2020, p. 217). The gift, in his analysis, is personal times or money offered/given to practitioners by MPOs to write drug names in prescriptions or dispense by pharmacies. However, such analysis generalises both concepts without a more reflective analysis of their context-specific (Tanzi, 1998; Polese, 2008; Muir and Gupta, 2018), layered meanings and intersecting and overlapping characteristics in cultural use and context.

Pharmaceutical companies in Bangladesh consider gifts and money exchange as ‘marketing investment’ (Shah, 2020), but I argue that such gifts, small or large, kind or cash, should be regarded as “marketing wares” (Katz, Caplan and Merz, 2003, p. 42) that infuse the essence of bribing in name/form of gift exchange. Such entangled fusion of gift-bribe conceptualisation and practice is visible in other socio-cultural institutions; one example is how the concept of dowry has been shifting toward ‘gift giving’ in marriage (Khanal and Sen, 2020). In Chapter Six, I present how the idea of bribes is shifting toward gift-giving in transactions between pharmacy owners and government health/drug officials. The most significant issue in this gift-bribe and aggressive marketing is that eventually, patients and consumers suffer from the higher price of medicine and health service. Here I present findings and show that medicine

prices could be more affordable and cost-effective for all if the pharmaceutical companies reduce the additional marketing cost of ‘gifts/bribe’.

Why are medicines expensive? Antibiotics price as a case

The pharmaceutical industry in Bangladesh has attracted the attention of rich countries (Gay, 2017) because of the cost-effectiveness of medicine production. The price of medicine in Bangladesh is also considered low (Arafat et al., 2016; Azam, 2016; Kasonde et al., 2019). However, medicine prices remain unreasonably expensive for many in Bangladesh (Shah, 2020), reportedly one-fifth of the population (A. Mohiuddin, 2019; Sarkar and Plahe, 2021). This is no more a secret why medicines are as expensive as the marketing cost is massive, including the additional budget for gifts/money for practitioners. Moreover, the government does not determine the medicine price, but the pharmaceutical companies do. Such a neoliberal approach and privatisation of medicine are common around the world in many countries. The reality is reflected in 2006 WHO report on intellectual property: “Access to drugs cannot depend on the decisions of private companies but is also a government responsibility.” (WHO, 2006).

In Bangladesh, reportedly, pharmaceutical companies spend more than Tk.6,000 crore on average every year, with 29.5% of their turnover spent and 65% of the workforce employed in marketing (Maswood, 2019). Expectedly, companies recover this added cost by increasing prices. I already discussed this marketing cost, including the gift and money provided to the practitioners to persuade prescriptions and push sales in retail shops. Now the question remains how less the price for medicines could be if the companies follow ethical business policies, deduct the expenditure spent for practitioners, and determine the maximum retail price (MRP) with the usual production, packing and marketing costs? According to pharmaceutical marketing managers in this research, medicine prices could be reduced by 40% to 50% from the current price.

Generally, any drug price includes the cost of two major stages: drug development/production cost and marketing expenditures. The production cost includes developing or importing active pharmaceutical ingredients (API) or raw materials, laboratory processes with quality checks and employee salaries, infrastructure and patent or product registration from the drug administration. The marketing cost includes the cost of medicine packing with information, labelling and advertising, and finalising the MRP with targeted profit calculations. As the participants reported, companies in some medicines generally add 50 to 80% profit targets in the retail price. On top of it, expenditure invested for practitioners is also included in this

marketing cost. One marketing manager explained the calculation for a generic antibiotic price this way,

> "Azithromycin sells at Tk.35 in our country, but the production cost of this is Tk.7. So think, if the drug were sold at Tk.10 still, the company would have made 3tk profit. But why is the company selling it for Tk.35? Because when they add the marketing cost, it becomes Tk.20, and the company intends to make a profit of 50% to 70%. Generally, we know 25% profit target is an ethical business, but here in Bangladesh, the way we do the price fixation has no government control. The company that came up with this drug they fix a price as the originator. Maybe their target is they will make 80% profit. Who launches it first will determine the price. There are no government guidelines. They are trying to create a regulation, but it has not been done yet."

A more complicated issue is that there are different prices for the same generic drug in the market. For example, Azithromycin from most companies is sold at Tk.35 per unit, but some brands are Tk.55 to 60. As claimed by companies, the reason behind this is the cost of raw materials or API imported from abroad. Most companies reportedly import APIs from China and India, and some from European countries. Companies that claim to import raw materials from Europe add double production costs to the retail price of specific drugs to ensure a higher quality of medicines. Chowdhury argued that such research and development processes are often used as an excuse for higher drug prices (Chowdhury, 1995).

The drug-pricing context in Bangladesh has a specific history since the early policy development in the 1980s. The first drug policy introduced in 1982 suggested the government's intervention in controlling the price of essential drugs by fixing a specific rate for local and international companies (Chowdhury, 1995; Shah, 2020). However, the policy was criticised by global corporations and western countries, stating that such a policy may restrict and discourage multinational companies from investing in Bangladesh's economy (Reich, 1994). After 1990 the implemented policy had to go under some changes and amendments regarding price determination control due to continuous political pressure from the international level. The local physicians also acted as influential parties suggesting policy changes due to their affected economic and power relations with pharmaceutical companies (Reich, 1994; Chowdhury, 1995; Shah, 2020).

As reported by the research participant, the price determination of any drug is in the hands of pharmaceutical companies who submit their price proposal to the government authority for any new drug. Authorities only check if that is within the competitive market price for regular medicine. Still, companies can claim that high quality APIs increase production costs and fix double or higher prices, even for an existing generic drug. Nevertheless, accusations of bribing in getting such new drug pricing or approval are widespread between pharmaceutical companies and drug administration officials. Azithromycin is one such example I described

above. Companies determine the retail price for generic and essential drugs since the state implements no strict law. Such pharmaceutical power, in fact, is wielded with support from the state governments' policy formations in the name of development and expanding economic growth; as an outcome, patients and consumers suffer from higher prices across the world (Sekerka and Benishek, 2017). Consistent with the literature (Shah, 2020), I also found that an ingrained market of counterfeit and smuggled drugs poses challenges for consumers, and thus, a higher price does not ensure quality medicines. Even registered medicine manufacturers manipulate pharmacological elements in medicines to increase the number of doses for patients and eventually raise their sales. They also make a higher profit by using a placebo in vitamin supplements. I discuss evidence that demands further research to understand such issues more substantially for policy implications and consumer safety.

Dibba Company, local fusion and luggage products

It is well recognised that the Bangladesh medicine industry suffers from widespread counterfeit and substandard drugs due to corruption and poor regulation of quality governance. The term counterfeit and its meaning vary across cultures. The World Health Organization (WHO) suggested that a counterfeit medicine is any brand or generic drug that is "deliberately and fraudulently mislabelled with respect to identity/or source" (Glass, 2014, p. 12). However, this should not be confused with substandard drugs. According to WHO guidelines, counterfeit drugs contain no APIs, incorrect or insufficient ingredients, and wrong or fake labelling on the pack. Substandard drugs may be genuine but contains less than 80% of APIs and do not meet the quality standard derived from the official pharmacopeia (WHO, 1999; Almuzaini, Choonara and Sammons, 2013). Glass noted that the term "Gray pharmaceuticals" indicates competitive brands by 'illicit profiteers' (Glass, 2014, p. 12) those are unregistered/unapproved companies and entrepreneurs besides the counterfeit and fake drugs in the market. Bangladesh is a context where it is challenging to separate counterfeit and substandard medicines as they are entangled.

Pharmacy daktar uses *dibba* (big jar/container) companies to indicate locally unregistered and illegal drug manufacturers. According to them, *dibba* companies have no regulation on quality. This is consistent with a previous study that village doctors in rural Bangladesh use the term *pot* (container) companies to refer to substandard or unregistered medicine producers (Shah, 2020). I also found that such unregistered and illegal drug producers often do experimental mixtures of chemical and pharmacological elements for non-prescription drug items that can easily be marketed in retail pharmacies. For example, as mentioned by several pharmacy daktars, an enormous number of smaller chemical enterprises and drug manufacturers emerged over the last few decades in the local market producing substandard/counterfeit

supplements and food products. As reported by all participants, among many others, antidepressants, oral salines, acid (gastrological) and pain relief drugs, muscle-enhancing products, and sexual health medicines (medication to increase sexual drive or capacity mainly for men) are examples of such unapproved and counterfeit drugs active in retail pharmacy level. Counterfeit and fake medicines are sold for prices as marked on the label or at usual rates; thus, the retailer can make a double profit on their sale. According to a recent estimation, the production of counterfeit drugs was 20% of the total sales in 2020 (The Business Standard, 2020a). A distressing concern is the unregulated and illegal fusion of more than one chemical substance or mixing of allopathic medicines (e.g. Dexamethasone) with herbal medicines sold as painkillers and muscle enhancement drugs. Naimul, one of the pharmacy daktars, detailed an example; he said,

> "Dexamethasone is mainly used for cow fattening in livestock, but this also works for faster pain relief. Too much of taking this is not good. Small factories are now mixing this in many other drugs like protein packs for bodybuilding or herbal and Ayurvedic medicines. If you take it, your pin will be gone quick, and you will feel hungry, take more food and gain weight. You will find *boro dibba* (big jars*)* in pharmacies labelled as herbal or protein packs. Younger who go to the gym for bodybuilding buy these. But this is very risky because we do not know what chemical reactions could be in the body. I know boys lost their appetite and suffered from many symptoms after using such kind medicines."

Besides these, a large black market of authentic drugs is also channelled illegally. For instance, Shah noted that smugglers smuggle illegal drugs come through the border from neighbouring countries and get blended into the local market (Shah, 2020). Participants in my research confirmed that many foreign drugs come through private carriers known as luggage products. Among others, insulin for diabetes, different inhalers, and vascular rings for vascular or heart surgery are major items on this list. Generally, these medicines are carried by passengers returning from abroad (mainly from the Middle East and from Europe) in their checked luggage and sell them to local intermediaries. In some cases, these come with legal weight approved for the passenger, but a larger syndicate is in action operating smuggling of such medicines and selling in the local wholesale market. Many pharmacy daktars and retailers buy those medicine for half or lower prices. Such medicines are sold at very high prices in the retail market as there is growing demand.

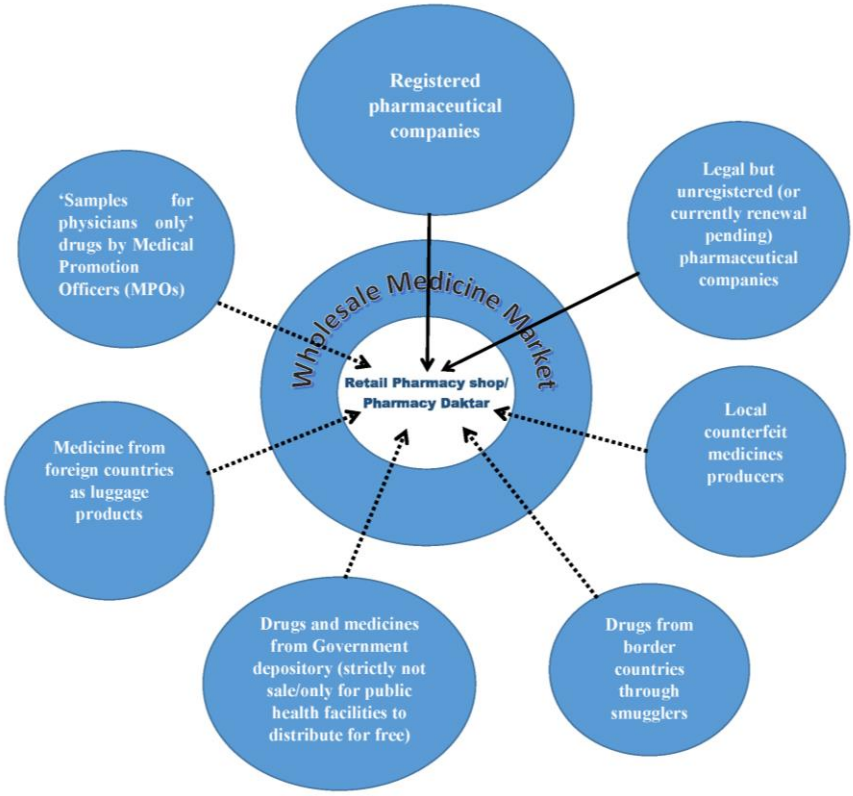


Figure 27: The Medicine Network: sources of medicine supply reaching retail pharmacies/pharmacy daktars. The straight arrows refer to only direct supply to retail pharmacies, and the broken arrows refer to supply through wholesale markets and direct marketing at retail pharmacies.

Physicians, MPOs and marketing managers in this research also showed concern about new drugs in the market without complete pharmaceutical trials. Many under-trial drugs in the market are either unapproved or pending final approval from the drug administration. For any new drug launching, the marketing approval requires the application to the DGDA, but often they are marketed before the final approval comes through. Drugs under trial phase III (one more stage required as per international pharmaceutical and clinical trial rules before going to market for mass consumption) for a clinical trial are often marketed to save cost and catch early profit. As one marketing manager mentioned,

> "Suppose DGDA has not given the number yet. The license may not have come to me yet. But I have already launched it in the market. They manage the authorities as they are confident of getting the final approval. They also bribe to get the papers quicker, like without proper inspections."

The WHO initiated a project titled International Nonproprietary Names (INN) in 1953 that opened the opportunity for developing countries to produce medicines without patent restrictions and make pharmacopeia universal. The title 'nonproprietary' allows INN pharmacopeia to be used "without any restriction whatsoever to identify pharmaceutical substances" (WHO, 2016, p. 1) and becomes a global public property. The number of INN

drugs has grown massively worldwide, and according to the MPOs and marketing managers in this research, Bangladesh is one of the high INN drug-producing countries. However, according to doctors and pharmaceutical managers, INN raised the risk of unapproved and substandard medicine production due to a lack of correct regulations. I find this intriguing for further research as a serious public health concern. Substituting ingredients or adulterating medicine is a major tactic of counterfeit and illegal drug producers, but it gets more complicated to apprehend consumers when the existing legal pharmaceutical companies manipulate the amount of APIs in both prescription and over-the-counter (OTC) drugs.

Microgram politics: a form of licensed adulteration in medicine?

Shipon, an undergraduate student at a public university, shared his experience with a doctor he visited due to a fever. The doctor prescribed him paracetamol but suggested taking two 500mg tablets twice a day for five days. Shipon was surprised, as he generally knows people take one 500mg tablet at a time. He asked the doctor why 1000mg. The doctor explained that the tablet might not contain actual 500mg APIs in it. “This is common nowadays, even in cases of popular brands”, the doctor added. This could be 400mg or less, so he advised two that will make it 600 to 800 micrograms of paracetamol. Shipon then took his medication as the doctor suggested but became confused and restless, knowing that the medicines did not have the expected elements, although he had bought a good brand.

In mid-August, I interviewed Professor Rehan, a university teacher-researcher of pharmacy. During the conversation, I shared Shipon’s experience with him and asked about his professional knowledge in this regard. Professor Rehan then shared that while testing local drugs for a research project, he and his students did not find any pharmacological elements in many vitamin supplement drugs available on the market. They used random drug units collected from local pharmacies that included both counterfeit and registered brands. Even in registered brands, they found that the actual APIs were compromised, such as in vitamin D tablets, they found 350 to 400 mg in place of 500mg, and no actual APIs were found in counterfeit drugs.

Khorshed is a quality control manager in a leading pharmaceutical company. According to him, the accusation of substituting APIs in the drug is not a myth nowadays. However, he explained this is not to mix with counterfeit medicines. He mentioned,

> “This is a different game. They do it through practitioners. They collect information from the doctor if they need more doses or not. The doctor will give you a prolonged medication course. For example, a general dose of antibiotic is a maximum of 4 times a day with 500mg, which could be for 3 to 5 days or three times a day for 5 to 7 days to complete the course. However, if any company

> manipulates the medicine's dose, let's say they sell it in the market at 400mg instead of 500mg, then this course will need more days to complete, say 4 to 5 more. Now you calculate if one tablet price is Tk.35, then how much more the patients need to buy! The less microgram in a tablet, the more profit they can make, and you cannot do anything, as the quality is not the problem here."

As mentioned earlier, such a reduction of drug APIs does not affect the visible quality of the drug as long as it contains over 80% of its active ingredients (WHO, 1999; Almuzaini, Choonara and Sammons, 2013). The consumers cannot differentiate but must depend on prescribers and pharmacy daktars' suggestions of drug brands. The generation of pharmaceutical surplus value and, thus, increased profit is an intentional process of a marginal reduction in active ingredients from each unit of the drug (e.g. 400 mg in place of 500mg) to sell more drugs with the same production cost and investment. Taking the term from one of the research participants, I define this as "microgram politics"; a practice that manipulates both the manufacturing and marketing of drugs in the pharmaceutical industry. Such profit values are already added to the medicine price even before the retail market price is calculated. This automatic profit in pharmaceutical medicine production suggests a different conceptualisation of the concept of value, investment and capital in social science and health studies.

The literature on medicine and drug adulteration is focused mainly on non-biomedical medicines. However, ingredient substitution for APIs in biomedical drugs is common worldwide. Growing evidence shows that many generic drugs are being adulterated with cheaper poisonous substitutes that could be lethal (Glass, 2014). Deaths among children were reported in many countries, including Bangladesh, because of glycerol and Diethylene glycol toxins mixed in paracetamol tablets (Hanif *et al.*, 1995; O'Brien *et al.*, 1998; Akuse *et al.*, 2012; Marraffa, 2014). The same substance was also reported to cause kidney damage among adults (Hari, Jain and Kabra, 2006; Gopalakrishnan *et al.*, 2016).

According to the DGDA report, among 209 functional manufacturers in Bangladesh, only 124 pharmaceutical companies produce 82 different antibiotics. All of these are currently under pharmacovigilance to check their good manufacturing practice. Recently, health officials reported that 19 licenses were cancelled, and 47 firms were prohibited from producing drugs due to drug adulteration (Mahmud, 2021). However, as reported by the marketing managers in my research, among over 280 legal companies, only the top ten to fifteen can follow current good pharmaceutical practices monitored by the American Food and Drug Administration (FDA). This also applies to pharmaceutical waste management, which demands further research as it seriously impacts the environment and biodiversity. Moreover, the actual number of counterfeit, illegal or unapproved drug manufacturers is still unknown. Nevertheless, the patients suffer the most from the consequences of this pharmaceutical landscape. Many

patients must bear the high prices, which I argue is a baffling situation for healthcare in Bangladesh as well as in other developing countries.

A growing anthropological literature is highlighting the powerful position of pharmaceutical companies around the world in shaping biomedical practice and the adverse effects of the capitalistic nature of the medicine industry along with their marketing of drugs to reach consumers, a process that is also producing unnecessary medicalisation and pharmaceuticalisation of public health (Nichter, 1989; Hogle, 2001; Lakoff, 2006; Petryna, Lakoff and Kleinman, 2006; Dumit, 2012; Towghi and Randeria, 2013; Towghi, 2014). Researchers in the South Asian context have observed how medicine sellers are attracted by offers and promotional packages from medical representatives, influencing what medicines they recommend and dispense to patients (Seeberg, 2012). Such offers often involved additional benefits (e.g. extra discount or commission, gifts) for pharmacy operators, as I have discussed. The state authorities play an elusive role in regulating such tendencies and often get benefits (e.g. bribes) from the pharmaceutical companies. These propensities influence medicine preferences from pharmacists or medicine sellers (new and expensive medicines) and affect patients' drug choice decisions. Advice on medicine brands by the pharmacy operators is also related to customers' trust in the provider as related to affordability (Garenne *et al.*, 2006; Pagan *et al.*, 2006; Vancelik *et al.*, 2007; Patouillard, Hanson and Goodman, 2010; Hughes *et al.*, 2013). Anthropologists noted the process as a culturally embedded 'reciprocal relationship' between retail medicine shops (including unlicensed providers) and pharmaceutical supply/sales agents (Kamat and Nichter, 1998; Das and Das, 2006; Ecks and Basu, 2009, 2014; Kamat, 2014). In line with previous studies in Bangladesh (Mohiuddin *et al.*, 2015; Shah, 2020), my ethnographic findings show that the unauthorised pharmacy daktars are also exploited by the neoliberal pharmaceutical market that is enabled by the state loopholes in Bangladesh.

Conclusion

Pharmacy daktars contribute to primary healthcare management, but they also act as a channel of aggressive pharmaceutical marketing and illicit drug sales. The government has taken a free-market approach to establish a competitive medicine industry in the global economy of medicine and healthcare. The medicine market is made friendly to local and international pharmaceutical investors, enabling companies to resort to arbitrary power to ignore legal boundaries. Pharmaceutical companies openly target unauthorised pharmacy daktars and influence them with provocative offers to achieve sales targets. Gift exchange and money transfers between companies and practitioners have been normalised and accepted even by state officials. Companies are also able to influence drug control authorities in their

marketing process. The competitive neoliberal market drives even legal pharmaceutical companies to do illegitimate marketing that eventually increases drug prices. Such shifts and changes eventually increase consumers' health expenditures and costs, making them unaffordable and causing suffering for a larger portion of the population. The most anxious matter is registered companies' drug adulteration and manipulation of pharmacological ingredients. Corruption among practitioners and state officials in different health authorities makes this happen. Unauthorised pharmacy practitioners have to live and survive in this web of a legal-illegal network of medicine producers in their everyday business. Since they lack the state legitimacy to practice and prescribe, pharmacy daktars always live on the edge as they cope with the state investigations regarding their legitimacy. However, they remain a contributory and integral part of the community's primary healthcare service and medicine supply. In the next chapter, I discuss how unauthorised pharmacy daktars survive with their illegal status in everyday business. I also discuss the challenges in the health policy framework to formalise currently unauthorised pharmacy daktars as recognised primary healthcare providers and what could be a way forward.

CHAPTER SIX: PHARMACY MANAGEMENT: CHALLENGES AND POTENTIALS IN FORMALISING PHARMACY DAKTARS

As illustrated in the previous chapters of this thesis, retail pharmacy owners in Bangladesh do not hold state-approved qualifications but practice as popular biomedical among the local community healthcare seekers. The Bangladesh government has taken initiatives to advance retail pharmacy management and the effective use of pharmacy operators. Such initiatives and legal measures for unauthorised pharmacy daktars confront legal consequences. In analysing my findings on how pharmacy daktars cope with the state legal framework in their everyday business, in this chapter, I describe and analyse the existing pharmacy management situations: initiatives and challenges. The unauthorised pharmacy daktars must negotiate the state's medical legitimacy with constant fear and threats from public officials. Unauthorised pharmacy daktars also use strategies to keep their business running, strategies that may not be ethical or legal (e.g. bribing/gift-giving at different levels), therefore requiring a discussion of corruption in both public and private sector contexts. Corruption in the state drug administration and surveillance is one major challenge reported in media and research that I consider in this chapter as it emerged in my ethnographic research context. I discuss how corruption practices in the formal sector have influenced the informal and quasi-legal sectors to encourage 'immoral' and 'unethical' practices undertaken by pharmacy daktars as strategies to survive in their business and preserve their livelihood/ make a living. Engaging Bourdieu's *habitus* concept (Bourdieu, 2005), I also argue that in Bangladesh, corruption at the macro and immoral practices at the micro levels become habitus for people in the primary healthcare context. To open the discussion, I first outline the current pharmacy reform project by the Bangladesh government, contrasting the rules for requirements of retail pharmacy registration and the ground realities derived from my ethnographic contexts. Then I present findings on how unauthorised pharmacy daktars adapt and survive against the state's legal actions and surveillance, followed by an analysis of the corruption concept. Finally, I present my research participants' perceptions about the potential of the effective use of pharmacy daktars in Bangladesh's mainstream healthcare delivery systems.

Model Pharmacy and Medicine Shop project: gaps between policy and practice

The role of community pharmacies has been developed worldwide from just retail medicine dispensers to healthcare providers (Mossialos *et al.*, 2015), but in Bangladesh, such reforms are still in process. Even the country is yet to establish structured practices of hospital pharmacies with qualified pharmacists in public and private healthcare facilities (Paul *et al.*,

2014; Saha *et al.*, 2018). The lack of proper pharmacy management and patient counselling/referral system still poses challenges in the retail pharmacy sector (Elias-Al-Mamun, Saha and Islam, 2016). Most community pharmacies are operated by a six-month training holder recognised as a grade C pharmacist by the state (J. Sultana, 2018; Habib *et al.*, 2020; Begum *et al.*, 2021).

To improve the retail pharmacy practice, the Bangladesh government initiated the 'Model Pharmacy and Model Medicine shop' project, which is now being implemented nationwide. Inspired by the Tanzanian Accredited Drug Dispensing Outlet (ADDO) model, the Bangladesh government launched a pilot accreditation program in 2016 to enhance pharmacy quality with 30 model pharmacies in different district cities (J. Sultana, 2018). This accreditation program aimed to modify the retail pharmacies across the country to ensure standard retail pharmacy practices[50] for safer public healthcare. Under this project, pharmacy shops are categorized into two levels based on several criteria: qualified service provider, standard infrastructures, computerised data and sales management and quality of drugs with good maintenance (J. Sultana, 2018). Level one shops are titled Model Pharmacies which must have a grade A pharmacist with a four-year bachelor in pharmacy and registered with Bangladesh Pharmacy Council (BPC). Level two shops are titled Model Medicine Shops that can be run by a can have support staff who are grade B (three-year diploma) or grade C (six-month certificate)[51].

Both the model pharmacies and medicine shops must fulfil the provisions of standard pharmacy management as per the rules of the Directorate of General of Drug Administration (DGDA) and BPC.[52] For instance, these pharmacies must have valid and updated trade and business licenses and registered pharmacist's certificates displayed in a visible place in the pharmacy. Over-the-counter (OTC) drugs, prescription drugs, non-medicinal products and non-allopathic drugs should be displayed on separate shelves with marked labels. A model pharmacy requires at least 300 square feet of space with eight feet in height. However, there are no clear guidelines for model medicine shops. Model pharmacies must have professional service areas, a modern monitoring system, and adequate air conditioning not exceeding 30 degrees Celsius. All pharmacies are required to have 24 hours of active refrigeration for temperature-sensitive drugs. The rules also prohibit unregistered, fake or counterfeit medicine and food supplements in the store. Expired medicines must be labelled red, kept on a separate locked shelf, and returned to manufacturers within one month of expiry; otherwise must be

[50] Hospital pharmacies in the public and private facilities are not included in this list.
[51] Grade B is a three year diploma in pharmacy degree and registered with BPC and grade C is completion of a six month pharmacy certificate course from a BPC recognised provider.
[52] The rules for model pharmacy and medicine shop management circulated as a Bangla pdf document by the DGDA that can be accessed here- http://dgdagov.info/index.php/pharmacies/model-pharmacy/641-pharmacy-management/file

destroyed. There should be a separate record for all expired medicines. Patient counselling services should be provided by the registered pharmacist available. No government drug can be kept in the shop or sold. According to the DGDA report, since 2016, the government has established 385 model pharmacies (DGDA, 2021, p. 11). However, I found that only 193 model pharmacies have been inaugurated across the country in the published list on the website.[53]

The government plans to bring all retail pharmacies under the ongoing pharmacy reform project. As part of this initiative, the authorities also provide all the retail pharmacies with timelines to renew their license for practice ensuring all the basic requirements. Though the state claims the successful functioning of these model pharmacies, the reality is different on actual practice grounds. In a 2020 newspaper report, Raqib noted that the concept of model pharmacies remains only in the paper as many pharmacies under this project are now "mired in irregularities" and get away with this status because of improper monitoring by DGDA (Raqib, 2020). In a 2021 mixed-method study, Begum et al. compared the knowledge and practice between model pharmacies and general retail medicine shops in Dhaka. They reveal several anomalies in model pharmacies, including a lack of patient counselling, absence of A-grade pharmacists or even any qualified pharmacists, dispensing prescription drugs without a prescription and lack of customer knowledge about service provisions in model pharmacies (Begum *et al.*, 2021). BPC is the regulatory body that controls pharmacy education and occupation governance. According to the BPC website, as I write this chapter, the total number of registered A-grade pharmacists is 17265. However, most of them are not attracted by the job environment in model pharmacies. As Begum et al. also reported, over 70% of appointed A grade pharmacists in their study expressed dissatisfaction with their job in model pharmacies due to lower salaries, lack of logistic support and moral status in their post. In their research, almost all retail shop operators think that the model pharmacies do not provide better service than them (Begum *et al.*, 2021). Dissatisfaction level is high among the patients as they reported regarding model pharmacies due to a lack of consultation with A grade pharmacists and higher medicine prices (J. Sultana, 2018).

The BPC website shows there are 5219 B grade and 130881 C grade registered pharmacists across the country. The DGDA 2019-2020 report says 32535 model medicine shops are established (DGDA, 2021, p. 11), but I found only 154 model medicine shops inaugurated in the published list on the website. The project guidelines are also unclear about the role of B Grade pharmacists (diploma) in the medicine shops because, in practice, grade C pharmacist operates almost all the pharmacies. Most of the pharmacy daktars and healthcare seekers in

[53] The full list model pharmacies and medicines shop can be accessed at http://dgdagov.info/index.php/pharmacies/model-pharmacy

my research did not find any difference between a general retail pharmacy and model medicines shops (level 2 shops) except for the size of the pharmacy premises and the logo sanctioned for model pharmacies and medicine shops by the state.

Almost all the pharmacy owners I interacted with mentioned that they think a model pharmacy or medicine shop is just a bigger one with air conditioners and a refrigerator compared to a conventional retail pharmacy. They also could not see any difference in managing the model medicine shop as a C grade pharmacist can run the shop just like other general retail pharmacies. As mentioned by the participants, many model pharmacies and medicines shops are established using political power connections. In those cases, they only showed compliance with the rules during pre-registration inspection, but they do not maintain this once they get the approval. In both rural and urban sites, I observed the drug and trade license and a registered pharmacist's certificate hung on the wall, but most of the time, the registered pharmacist was absent. According to one of the pharmacy owners,

> "Many shops around the country either did not have their license or had not renewed it for a long time. However, the government has been stringent since 2016. You can say after 2018, now, shops that do not have renewed drug licenses or trade registration will face trouble. Hence, many of us are trying to get the model medicine shop registration with our C grade pharmacist certificate. Still, it needs expensive modification of the shop, and also we need to pay extra money to the officials to get it. Some people also use the government logo for model shops without registration to attract more customers. Some also use political power relations to get registration, but if you look at those shops that got the logo and registration are not maintaining all the rules. For example, many fridges are not properly working due to power cut problems, and shops cannot follow the recommended temperature for meds."

The misuse of the "model pharmacy logo" and lack of maintenance after the registration are two significant flaws in this project implementation reported in popular news media. Authorities claim that they lack the human resources to cover a massive number of shops to monitor (Raqib, 2020). However, in my research, pharmacy owners/daktars pointed to the corruption in the pharmacy registration process and during the routine inspection/investigation by the local drug administrators and inspectors as a major challenge in this regard.

Pharmacy trade and drug license: requirements and realities

Generally, to get a drug license for a pharmacy business, a retailer must submit a registered pharmacist certificate with a valid trade license and pay the fee at the drug administration office. Shah has noted that establishing and running a pharmacy business is 'comparatively easy' in Bangladesh, motivating people from different backgrounds to be involved with the business of medicine sselling (Shah, 2020, p. 225). However, based on 2015 drug shop survey

results, Ahmed et al. argued that drug shop owners are reluctant to get a license because of the prolonged and expensive licensing process. After the retail pharmacist lodges the application at the local drug administration office, the process requires a field inspection by the drug superintendent/inspector and the inspection report provided to the district drug committee. Then the district committee will send the application to the DGDA head office in Dhaka with a recommendation for final approval. Since the district's meeting is held at long intervals, these approvals suffer from backlogs. Moreover, the 'alleged informal cost' of getting a license is also a factor identified for the high number of unregistered drug shops (Ahmed *et al.*, 2017). For instance, the government fee for a drug license for a retail pharmacy is Tk.2,500 for urban cities and Tk.1,500 for rural locations (SIAPS, 2015; DGDA, 2021), but the pharmacy owners in this research mentioned payment of different amounts ranging from Tk.3000 to 30,000 for their drug license. Generally, a trade license is provided by the ward commissioner's office in the urban cities and the union council in the rural with approval from the market committee. Although the regular fee is Tk.3000 in metropolitan and Tk.1500 in rural areas for retail trade licenses, all the pharmacy owners in this thesis mentioned that they had to spend a minimum of Tk.5000. Such payments are made to the local officials as a bribe to speed up getting the license. These apparent informal costs (examples below) are directly mentioned as 'bribing' by the participants in this thesis. One of the pharmacy owners/daktars mentioned, "you have to pay at different levels, say, to the ward/union office for trade license, then drug admin office for drug license and sometime even to local political leaders or upper management people to get things done quicker."

As I observed, many pharmacy owners did not renew their trade and drug license. Some pharmacy owners, particularly in rural sites, did not know they needed trade and drug licenses to set up their shops as their shops are decades old from the family inheritance. It is also common that pharmacies are still awaiting the drug license to be renewed in urban locations. In some cases, pharmacy owners also appoint someone to do this job; usually, a broker who applies on their behalf manages the officials and makes the process faster. Thus pharmacy owners can reduce the approval time as money can speed up the process. For example, Naimul in urban Dhaka did not have trade or drug licenses until 2016. His story sums up the scenario for most pharmacy owners/daktars. He said:

> "I had nothing. By seeing the shop decoration, no one could say I had no trade license or drug license- all I had to 'manage' the government people. Well, I obtained both trade and drug licenses in 2016. My drug license will expire in July 2020, and I have already paid money to someone who will do it for me. I just need to pay extra money than usual, but this cost could be much more if I do it directly by myself! It is hassle business, but if you give money, then no worries."

Sometimes, such an amount can be colossal if a pharmacy owner fails to comply with officials' requirements or demands. For example, I present a scenario of pharmacy drug licensing in a rural site. Samirnath, a popular pharmacy daktar with a Rural Medical Practitioner (RMP) certificate, shared his experience with the district drug super regarding pharmacy shop registration. His father had been running the pharmacy without a drug license for the last three decades. Since 2018, his current registration has been in his name as he also holds a C grade pharmacist certificate in addition to his RMP qualification. When Samirnath applied for a drug license, the drug super demanded an 'outrageous amount' of money and gift. He described,

> "Generally, we know a drug license costs perhaps around Tk.3000, but I had to spend over Tk.86,000 (70,000 cash) for my shop. My father ran our family shop for over 30 years, and he was not aware that we needed a drug license to operate the shop. Then when I took over the responsibilities, the drug super came to inspect. He told us he would file a case against the shop since there was no pharmacist or drug licence unless we paid him Tk.2,00,000. I had to pay him Tk.70,000 for this shop license. On top of that, he also asked me to buy a smartphone for his wife. The model he asked for was nearly 30 thousand, but all I bought that I could afford, spent 16 thousand; still, he is not happy. I am not saying we did a legal thing by not having a drug license before, but you could fine me and deposit it to the government. You didn't do it and grabbed all the money!"

In early 2019, Samirnath installed another pharmacy shop in the same market running without a license. In late 2019 the drug super visited the market as a routine check and found the shop lacked a permit. He enquired Samirnath why the registration was not done. Samirnath told the drug super that he did not have money as he had already paid him a lot. The drug super told him to settle this matter for Tk.20,000. Samirnath disagreed with that, and the shop is still unregistered. It is a common scenario across the country. I found none of the pharmacy daktars in this thesis did their drug licenses with actual government fees. Regardless of rural or urban locations, all of them had to pay more or less money than the original fees for drug licenses as bribes or gifts to the drug administration officials.

In Chapter Five, I discussed the gift/bribe conceptualisation and showed that gifts in pharmaceutical-medical transactions work as bribes. The above case of gift-giving (or demand by the receiver) for a drug license shows the concept of bribes in the public sector that are also often masked with the idea of a gift. Such findings, I argue, suggest that in the theoretical understanding of the gift/bribe debate, we need to consider how both are entwined and supplementary to each other in their use in the specific cultural context of economic or even social transactions, as I observed in my ethnography. Such corruption in the name of gift exchange becomes an expected alibi in retail pharmacy surveillance and monitoring activities by the local drug control offices.

The state drug surveillance and coping strategies by pharmacy daktars

The drug administration runs different surveillance activities to control unauthorised practices and counterfeit and fake drugs in the retail market. Each district has drug licensing and action committees to prevent drug-related discrepancies. The drug monitoring activities include routine visits by drug inspectors, sudden raids and mobile court investigations by a combined team of drug administration, judicial magistrates and law enforcement agencies. Officially, this is termed *Sudhhi Obhijan* (corrective expedition/investigation campaign) in the original DGDA guideline[54]. In local culture, people sum up all such activities as checking or *Tadonto* (investigation).

In Bangladesh, Pharmacy Daktars and retail pharmacies work under the constant pressure of multifaceted challenges, as found in my research and also reported previously (Shah, 2020). They have to negotiate their practice with the government health authority and drug administration investigative personnel or teams in various ways. Raids and investigations also impact their reputation in the locality, affecting the trust level among their patients and customers. Such realities of pharmacy daktars in my ethnography are consistent with what Ecks and Basu showed in Indian contexts where unlicensed RMPs live with the fear of being arrested by the state authorities as they stock, prescribe, and dispense psychiatric drugs at the retail level without a permit (Ecks and Basu, 2014). Moreover, as pharmacy daktars in my research in Bangladesh mentioned, corrupt journalists often take advantage of their illegitimate position and extort them for money. Some people confronting pharmacy daktars can also be fake law enforcement personnel and journalists. In such a context where retail pharmacy owners who do not have drug licenses or authorisations undertake strategies in everyday business to survive such ‘legal’ actions and investigations in their everyday business.

Proxy and ‘ghost’ pharmacist: managing sudden inspections and raids

Most retail enterprise medicine shops are operated by the owner, who also acts as a practitioner and dispenser at the same time. Retail pharmacies cannot afford to appoint grade A or B pharmacists as it costs them too much, which then also limits their transition to become model pharmacy shops. Typically the owner holds a C grade pharmacist certificate. Depending on the size of the shop and ability, instead of completing a pharmacist course, some owners appoint a pharmacist (B/C grade) or assistant. Many pharmacies operate without any pharmacist to reduce the cost. However, in my observation sessions, I found every pharmacy shop has a pharmacist certificate hung on the wall but not necessarily the pharmacist available

[54] Details of the guideline circulated in Bangla available at http://dgdagov.info/index.php/pharmacies/model-pharmacy/641-pharmacy-management

at the shop. In the case of pharmacies running as a family business, the pharmacist certificate is availed by one of the members but might not run the shop. In some local markets, pharmacy owners also use unknown pharmacist certificates or request pharmacists from another shop to act as a proxy during any sudden investigation by the drug supers. Here I present one example of how a shop owner manages the government investigation when a shop is found lacking a pharmacist.

In early February 2020, I had several observation sessions and interviewed Saimon, the owner of a retail pharmacy in a suburban market in Dhaka city. He obtained a Licentiate of Medical Faculty (LMF) certificate in 2010 and worked in pharmacy for more than six years as a salesman and assistant to a registered doctor practising in the pharmacy. He learned about the basics of primary health, used to consult patients and operated minor surgical work in that shop. He opened his shop around mid-2017 and did not go for a pharmacist certificate course as he thought it would take a long time, and he might not have eligibility in terms of education. He was not aware of the six months C grade pharmacist. When I met him and stayed in his pharmacy, I observed a pharmacist certificate on the entrance wall, but the person was not there. I asked him where the pharmacist was, and he replied with a story behind his pharmacy registration that depicts corrupt practices, even at the DGDA head office in Dhaka. The following conversation with him reflects this fact.

> Researcher: How did you manage this pharmacist certificate for a drug license?
> Saimon: I do not have a pharmacist certificate, so I could not have a drug license. I have only a trade license as the owner. I am not a pharmacist but I must have a pharmacist to get the pharmacy registered. I went for a drug license, and when they said I needed a pharmacist certificate, I realised I didn't have one. The officer then said he could provide a certificate to register at least. So I paid him money, and he supplied this certificate that says the pharmacist has a four-year degree. I even do not know the person in the photo as I have never met him.
> Researcher: What happens if the authority finds he is not here?
> Saimon: I need to lie that the pharmacist is on leave. Sometimes I request another pharmacist in the market to act as a proxy for him. I have good terms with another pharmacist shopkeeper in the market. When I know that the inspectors are about to come, I request him to come here before the inspector arrives to present a pharmacist at the shop before the authority.
> Researcher: How do you know when a raid will occur or if the inspector will be in the market?
> Saimon: Usually, if any raid occurs in the market, we get the information via mobile phone calls from the shop that got the first hit. We also have an informer from the pharmacy council. When they get the news, we get it too.

The examples of pharmacy raids were reported in previous studies (Saha and Hossain, 2017; Habib *et al.*, 2020; Shah, 2020; Begum *et al.*, 2021), but the literature does not explicitly represent such coping strategies by pharmacy daktars. During the fieldwork, I observed four cases where the owners used a certificate of a pharmacist who does not attend the shop. Most

healthcare seekers seem indifferent to this matter as they only care about the service they get and do not pay attention if the shop has a registered pharmacist. Also, some of the customers/ health seekers indicated that they don't have control over such matters. One of the healthcare seekers commented particularly about the pharmacist in Saimon's shop and said, 'he is a ghost pharmacist!'. I found that such a proxy pharmacist is just another way of negotiating with state medical-legal provisions among the pharmacy daktars. Avoiding written prescriptions is another strategy undertaken by pharmacy daktars in the contemporary context of legal measures taken by the health and drug authorities.

Prescription: switching between written and verbal

Most pharmacy Daktars I have researched mentioned that they can write a prescription if they want, which also can increase their income, but they do not do so now as this is risky. If they get caught, they will be treated as frauds. The number of written prescriptions reduced significantly in recent times, given the context of legal actions and raids conducted by the government drug super and consumers' rights cell in different parts of the country. Haider, a pharmacy daktar in Dhaka, described the situation in this way:

> "If you talk about legality, we cannot write a prescription because only MBBS doctors can do that. LMAF and diploma doctors could prescribe in the past, but now, it is the high court's order, so it is not right to write a prescription if I am not MBBS. Still, some of us do that as it brings more income. If I provide a formal prescription, it gives the impression to the patients too. But I think prescriptions are given by renowned ones [referring to pharmacy daktars] who have the reputation of practising this for a long time, and people trust them because no bad things have happened so far."

Under such circumstances, most pharmacy daktar hide their prescription practice or stop providing written prescriptions (but continue with verbal or small notes on a piece of paper), fearing the consequence. They might lose their income from consultation fees, but consultation without paper prescriptions can avoid legal consequences on one side and retain trust among their customers and patients in the local community on the other. Such strategies help pharmacy daktars to survive and run a pharmacy despite state law prohibitions. As Saimon mentioned, there is a channel of 'informers' active in the middle between pharmacies and the authorities. Unauthorised pharmacy owners get information from these informers to get away from the raids and inspections and survive in their everyday business. These informers could be spying or acting as an informer for the police, but they also provide information about raids to pharmacy owners in exchange for money. The role of informer plays a vital role in persisting the unauthorised retail pharmacy market. The example I discuss in the next section illustrates the mechanism of how this process works for pharmacy operators.

‘Half Shutter service’ or ‘Day of Silence’: Strategies and counter-surveillance

In late June 2019 morning, I was on my way to catch an appointment for an interview with a pharmacy daktar in Dhaka city. When I got out of my residence, I found the road empty, and all shop shutters were halfway closed, which is not usual. Most grocery shops are open, but the pharmacy shops are closed. I walked nearly 2 km and found 17 pharmacy shops in that locality. When I talked to one of the grocery shop owners, I realised that a mobile court team is operating raids in retail pharmacies, and if they find expired or fake drugs, the shop will be fined. Even if the raid was happening in the central area of Mirpur (a major suburban town in Dhaka), the fear spread among all surrounding business owners. When I returned to my residence in the afternoon, I found most shops were open except the pharmacies. Only a few pharmacies kept their shutter halfway open and served customers and patients in a limited way. One of the pharmacy daktars termed this as ‘half shutter service.’ I had a small conversation with Mahim, the neighbourhood pharmacy owner. He shared that pharmacy owners get the news of upcoming raids or ongoing raids happening in surrounding locations. They keep their shop closed for the day. He said,

> “As you saw this morning, shops were closed because an investigation team was in the market in Mirpur, but you find the entire 5 to 10 km areas will be affected due to that. Say this location is at least 2 km away from where the raid was. We got news from shop owners in that location, and all of us got prepared. Some of the shops kept their shutter halfway down so that they can run away if the investigation team is nearby. Most shops keep remaining closed for several hours or even the entire day. Shops owners keep mobile phone communication, and when they get the green signal that the mobile court is gone, they reopen the shop. Some days we are silent. It’s not good for business as we depend on this shop. You imagine if raids occur several days in a month, then this is a huge loss, but we need to survive like this. Yes, some shops sell expired and counterfeit medicines or do not have a license, but if we have a license or do not do any wrong, owners fear that the mobile court will find an excuse to fine or penalise to get money (bribe/extortion) from us.”

The example shows contextual evidence of how the concept of surveillance works in the health and medicine market in local cultures. In the Foucauldian explanation of the governmentality concept, the collected health data about the population through the state institutions (prisons, hospitals, schools) give the authority the power to create norms about everyday knowledge of life (for individuals and groups). Such control over knowledge and power also grants meaning to what is accepted as normal vs pathological (Canguilhem, 1991). Foucault’s concept of governmentality is useful in understanding how surveillance is an integral part of modern state apparatus and governance systems with high technologies (e.g. the use of CCTV, Smartphone applications, databases, electronic and remote monitoring etc.) (Foucault, 1991; Ragnedda, 2011; Manokha, 2018; Couch, Robinson and Komesaroff, 2020). These technologies have

replaced many of the physical forms of panoptical observations (e.g. human guards). In the context of this thesis, the drug officials had the necessary background information about retail pharmacies when the government initiated the digitalised registration database entailing the collected names of the owner, locations and contact details of all registered retail pharmacies. They also have details of unregistered pharmacies as well. The authorities also use a network of 'informer' who provides information over the phone. All these panoptic measures give the state officials the power to accept or reject the practising 'authority' regardless of official authorised biomedical practices or unauthorised pharmacy daktars in retail shops. Although for different purposes, both public drug control officials and private pharmaceutical representatives (see Chapter Five) operate surveillance and actively monitor activities of unauthorised pharmacy daktars and owners. Thus, retail pharmacies remain, survive and work under double surveillance: public and private (Ragnedda, 2011, pp. 184–185).

Pharmacy shop owners have several layers of sources from which they get information about current actions and plans of the local government, drug authority, department of consumers' rights and mobile court. For instance, the people who work for the police or drug authorities as their 'informers' also share the information with local pharmacy shopkeepers for economic benefits. However, as mentioned, these 'informers' also can (and do) extort pharmacy owners for money; otherwise, they threaten to expose or inform the authority about pharmacy shop owners keeping fake and expired drugs (false accusation). The retail pharmacy welfare association also have contacts in the administration who often inform the local shopkeepers about any upcoming or ongoing raids in the local market. Although there is competition among the pharmacy daktar in attracting customers, they help each other by sharing information during any ongoing raids by the state officials.

The information-sharing network among the pharmacy owners and the informers inside investigation teams or drug office help retail pharmacies get information about potential raids and go underground. The pharmacy daktars/operators also collect and keep necessary details about the investigating teams and the drug super. Such context can be understood as a discursive power formation (Foucault, 1979, 1991; Bratich, Packer and McCarthy, 2003) and a cultural mechanism of subaltern surveillance where the subject or subordinate also has a panoptical eye (Foucault and Shendan, 1995; Foucault, 2008) on the powerful (authority). Bourdieu denotes the "secret code" of practice (censorious glances or tones, disapproving looks' expressed communication) (Bourdieu, 1985) that acts as "the symbolic power" of people (Bourdieu, 1991; Scheper-Hughes, 1997). In Scott's explanation, such passively used techniques like 'false compliance, pilfering, feigned ignorance, slander, arson, sabotage, and so on' are the weapons of the weak (Scott, 1985, p. 29), indicating the discursive resistance

power in social power relations. In the context of unauthorised retail pharmacy daktars and operators, adopting techniques like ‘half shutter service’ during raids or lying about their prescription practices or managing authority with bribes can also be understood as ‘weapons of the weak’ through which pharmacy daktars resist and survive against the state legal actions.

Dipankar Gupta questioned Scott’s idea in the Indian context, arguing that such weapons of the weak in reality could backfire for the poor ‘thus ignore what such tales really are: sources of routine repression by the rich.’ (Gupta, 2001, p. 89). In my research context, pharmacy daktars as subalterns (both due to their class position, but also their position in the hierarchy of the formal and informal allopathic medical systems) would face significant consequences such as losing their entire livelihood if were to employ types of the “weapons of the weak” suggested by Scott: ‘false compliance, pilfering, feigned ignorance, slander, arson, sabotage, and so on’ are the weapons of the weak (Scott, 1985, p. 29). Instead what I observed is that pharmacy daktars’ resistance to State mandated raids emerged in actions such as closing their business for a day and losing their earnings. Thus, pharmacy daktars' compliance with health regulations generally is not similar to the ‘self-surveillance’ concept in Foucauldian analysis, where people develop self-surveillance practice, and the external guard becomes less necessary. In contrast, this is a context where the State health structure functions as policy and in the document, in reality, there is ill-managed implementation of rules and regulations and loopholes created by state officials and apparatuses. Generally, pharmacy daktars comply with the regulations and laws of the state health authority; however, many also take advantage of loopholes, even while being in constant fear and threats of being exposed. As evidence suggests in this chapter, pharmacy daktars live under constant fear and threat of extortion by drug inspectors and journalists who often threaten to expose their unauthorised practising status and demand money. In this terrain, corruption in the licensing authority and local drug surveillance system also gives pharmacy daktars negotiating scopes for their biomedical authority as practitioners and medicine sellers. In what follows I discuss my research participants’ views on how corruption and ‘unethical’ practices become an integral part of everyday life in the local health context.

Corruption and immoral become *habitus*?

There is thriving anthropological literature on the definition of corruption and its cultural meaning, where anthropologists have explored the nuances of bribery, gift, nepotism, extortion, and so on, and link the relationship between people and bureaucracies (Harrison, 2007; Aminuzzaman and Sumaiya Khair, 2017). In the Indian context, Gupta analysed corruption as a vehicle of structural violence against the disadvantaged and poor (Gupta, 2012, 2017). In the Bangladesh context, Shah discussed ‘corruption complex’ in a rural setting as

cultural practices where particular government administrators who are responsible for ensuring the quality of healthcare in the private sector turn out to be " the patron of the ongoing corruption" (Shah, 2020, p. 283). According to the literature, despite the strength of the present drug policy, the regulatory authority suffers from inadequate resources that hinder the proper operation of drug surveillance and pharmacovigilance by the local drug administration (Ratanawijitrasin, Wondemagegegnehu and World Health organization, 2002; Ahmed *et al.*, 2017; Mohiuddin, 2018; A. K. Mohiuddin, 2019; Habib *et al.*, 2020; Shah, 2020). Due to a shortage of human resources, shop visits remain disorganized and irregular (Ahmed *et al.*, 2017). According to the latest report, the DGDA has 720 positions at different layers in its organogram across the country, with 359 positions active and 321 vacant (DGDA, 2021). Currently, there are 194 drug administration officers (drug inspector/drug superintendent and assistant director) at the district level responsible for monitoring and controlling the pharmaceutical, clinical/lab and retail pharmacy practices (DGDA, 2021). It is also noted that such ill-managed monitoring infrastructure gives state officials less time to assign shop visits. (Garimella and Sheikh, 2015; Ahmed *et al.*, 2017; Shah, 2020). Thus, insincere inspections subsequently allow unapproved practices. In my research, the formal doctors and unauthorised pharmacy daktars saw corruption among the officials to be a more significant cause of poor control of drugs and pharmacy practices than the lack of government human and technical resources.

Anthropologists noted that corruption activities' meaning, purpose, and execution vary across cultures. Moreover, a shift and fusion of gift and bribing practices are also evolving in many contexts. I discussed in Chapter Five that bribery and gift-giving concepts are entwined in the context of health and medicine in both the public and private sectors. Thus instead of bribery or economic gains, corruption can be practised in various forms like persuasion, use of speed money, favouritism, scam, misappropriation or even extortion (Klitgaard, 1998; Polese, 2008; Sheperd, 2009). It is well noted that state officials, elected political leaders and bureaucrats in Bangladesh, practise exclusive power over services but show poor transparency and accountability (Rashid and Johara, 2020). For instance, although the state has been implementing many anti-corruption intervention and awareness programs, the regulatory organisations and institutions are not strong enough to combat widespread corruption (Zafarullah and Siddiquee, 2001; Rahman, 2007; Khan, 2009; Pramanik *et al.*, 2020; Abdallah, Chowdhury and Iqbal, 2021).

Since the concepts of corruption and anti-corruption are also entwined (Muir and Gupta, 2018), anthropologists argue that even legitimate efforts to eliminate corruption can also be a corruptive measure to divert citizens' attention from many other corruptions (Gupta, 2017;

Pardo, 2018). In Bangladesh, corruption among anti-corruption officials is widely noted and reported in popular media and research. In a newspaper article, Dr Iftekharuzzaman, the director of Transparency International Bangladesh (TIB), pointed out that the 'abuse of power to control the abuse', political and administrative influence, and lack of accountability make the anti-corruption commission ineffective (Iftekharuzzaman, 2019). Many experts argue that the anti-corruption efforts based on 'institutional isomorphism' (DiMaggio and Powell, 1983; George *et al.*, 2020)[55] have failed to prevent corruption in public institutions and programs in Bangladesh (Sakib, 2019). Shah, in his ethnography, has analysed such corruption activities as cultural practices in the rural healthcare context and argued that corruption in Bangladesh's public and private health sectors creates social suffering and structural violence against the poor in accessing healthcare (Shah, 2020). Shah also cited Gupta's work in India and argued corruption among public officials and service delivery mechanisms are interconnected in everyday life. People under such circumstances not only pay bribes to obtain services but also adapt themselves to how the system of this state institution functions (Shah, 2020, pp. 120–21). As presented in Chapter Three, the country has experienced a surge of corruption and misuse of emergency medical supplies during the early could-19 pandemic times (see Chapter Three) by the state officials and local government representatives (Al-Zaman, 2020; Naher, Hoque, *et al.*, 2020; Siam *et al.*, 2021). In the case of unauthorised biomedical practices in retail pharmacies, administrators often misuse their investigative power and impose threats and unlawful measures on unauthorised pharmacy owners/operators. Precipitants in this thesis reported many unlawful behaviours and demands by the drug supers asked from pharmacy owners/daktars. Saimon shared another inspection occasion in Dhaka city in his pharmacy, which he termed extortion by the local drug super.

In late 2018, once the drug super visited his shop, he found a small crowd of customers there. Saimon requested the drug super to wait while serving the customer and return to him as soon as possible. The drug super was disappointed and left the shop. Three days later, Saimon received a notice to meet the drug super and explain why his shop would not be sealed for keeping expired medicines and not maintaining the shop as per standard requirements. When he met the drug super and explained that the accusations were false, the drug super told him that he did not show 'appropriate respect' to a government officer. He then warned Saimon would be served with a notice to explain why his shop would not be sealed for keeping and selling banned and expired medicines. Saimon was shocked to hear that and eventually had

[55] The concept isomorphism was introduced by a group of theorists in sociology of organizations known as institutionalists in 1970s and 1980s. The concept indicates that corruption can be reduced by creating competitive confounding processes that will force units (individuals and institutions) in a population to resemble others will experience similar sets of environmental constrains. For more see the reference cited in this chapter.

to pay a Tk.5000 bribe to the drug super to get rid of that notice of explanation to be sent to this shop.

Pharmacy daktars/owners constantly fear such inspection or threat of extortion and exposure of their unauthorised status as a practitioner. Most of the time, perils come with the accusation of selling expired medicines or not fulfilling standards for pharmacy management as per the rules. According to some pharmacy daktar, even if the pharmacies obey the rules and maintain requirements, they could be fined for no reason by the drug super. Pharmacy daktars also mentioned such extortions or demands for bribes are one of the everyday sources of income for people in authority. The cases presented in this chapter are examples of how drug supers use their power to take advantage of the illegality or unauthorised status of pharmacy daktars and demand unlawful benefits. Pharmacy daktars think imposing penalties beyond the law without valid reasons and demanding personal benefits like money or gift as a resolution is a form of extortion in the name of punishment. Still, they have to endure this suffering to keep running their everyday business. The broader level of corrupt practices in the formal sector also influences the sphere of informal and unauthorised biomedical practices thrusting 'mental corruption' (Chouhan and Sarma, 2020, p. 214) upon pharmacy daktars, leading them to undertake unethical measures to survive and make a living in everyday life. As my research findings discussed in this thesis suggest, the corruption among health officials and 'immoral' strategies by unauthorised pharmacy daktars, I argue, have become an integral condition and structure shaping practices in Bangladesh's everyday healthcare and medicine business practices.

According to Bourdieu, habitus is a process of practices that are shaped by society and becomes deposited in persons as long-lasting dispositions guided by the practices from past structure (Bourdieu, 1984) and determining ways to 'think, feel and act' (Wacquant, 2011, p. 86) at present. Habitus in everyday life results from an interplay of both structural practices adopted by individuals without 'deliberate pursuit of coherence" (Bourdieu, 1984, p. 170) but is not permanent; instead is fluid as shaped under unexpected situations over time (Navarro, 2006). I found healthcare seekers, pharmacy daktars, pharmaceutical representatives, and formal doctors, all in their personal and working settings, to accept the presence of bribes as an essential part of everyday business and immoral strategies for them as pharmacy daktars to survive or earn more profit. As I found in field interactions, even the Bangla term for corruption *Durniti* makes no difference in its meaning and use among the research participants and community people in their everyday lives. Healthcare seekers and pharmacy daktars view the immoral and unlawful activities of pharmacy daktars as the same as corruption, and they term them as *choto durniti* (smaller-scale corruption). They view corruption in the formal sector

as *boro durniti* (larger-scale corruption). Such deviations from professional morals and normalisation of them in healthcare, medicine and all other business sectors have become a common phenomenon.

In such internalisation and cultural use of 'unethical', 'immoral' and unlawful we can see a resemblance to Bourdieu's idea of *habitus*. The structural corruption (corrupt public officials) in the formal sector and taking advantage of loopholes in the surveillance systems by individuals (e.g. opportunist unauthorised pharmacy daktar) makes the state apparatus elusive. Both public officials (e.g., drug inspectors) and unauthorised practitioners (e.g., pharmacy daktars) often make their objective decisions to follow their current practices that are against State health policy and rules despite being aware of legal consequences. This particularly shows an extension of Bourdieu's concept of habitus as 'transposable disposition' and 'structuring the structure' (Bourdieu, 1977, p. 72). Critical reflection on Bourdieu's analysis of habitus by other scholars also suggests that habitus as a general theory of practice is not static; rather, Bourdieu indicates that actors can formulate new actions where 'new' in the sense of habits from depositions of earlier socialisation (Akrivou and Di San Giorgio, 2014). Suggesting a rethinking of Bourdieu's analysis, Mouzelis argues that the process of habitus is not only to follow the dispositions of unconscious structuring but also needs to consider the interactive dimension of social factors that influence everyday practice and generate new actions leading to restructuring the structure (Mouzelis, 2007). Findings in my research suggest loopholes in the state health systems in Bangladesh enable the generation of new actions by the actors (pharmacy daktars, formal doctors and pharmaceutical companies in this case), leading to the structuring of the structure and formulating new predisposition features in everyday practices. Nevertheless, 'corruption' becomes an institution itself (Christophe, 2016), encouraging immoral paths at individual levels in everyday cultural practices. Such cultural practices nevertheless create incessant suffering for consumers and healthcare seekers with an increased cost of treatments and medicines, as described in this thesis.

Most investigations or raids in retail pharmacies mainly search for illegal, counterfeit and expired drugs in the shop. The authorities also check the mandates for temperature control for drug preservation. However, all the pharmacy daktars in this thesis mentioned that the administration did not view them as practitioners. Hence, they generally do not question their ability to practice unless they find anyone providing a written prescription using a fake MBBS certificate and calming themselves as 'doctor'. The interesting point is that pharmacy daktars do not claim themselves as doctors in any formal or public encounter. I mentioned in earlier chapters that pharmacy daktars and their consumers differentiate pharmacy daktars from the fake 'doctors'. Shah has also noted that village doctors based on their pharmacies differ from

fake practitioners such as ‘surgeon of dark night’ who claim to be full-time physicians and even work in formal facilities (Shah, 2020, p. 132). Pharmacy daktars, on the other side, as I found, remain transparent about their identity by showing detailed information in the prescription, such as their certification and courses (RMP, LMF/LMAF, Child Specialist, specially trained on family planning etc.) accomplished. The prescription format also gets updated according to their newly acquired training or knowledge, such as a short course or endorsement from a more popular qualification provider. The transparency in the prescription about a pharmacy daktar’s credentials and capacity helps them differentiate from a fake practitioner and inquiries from the health authority[56].

In my interactions with healthcare seekers, I asked about any unpleasant incidents like mistreatment, damage or death caused by the practice of pharmacy daktars. Almost all the healthcare seekers echoed similar answers that there are very few incidents of mistreatment, and pharmacy daktars have not caused any fatality. Since pharmacy daktars also reside nearby those who seek their services, they are easily traceable by the community healthcare seekers in case of any mistreatment. Healthcare seekers can ask for compensation for the patient in any dispute. Otherwise, the responsible pharmacy daktar will be banned from practising in the locality. One of the healthcare seeks in pharmacy in Badda, Dhaka mentioned,

> “I have seen his shop (Arun, nearest pharmacy daktar) since my childhood. He has been here for many years, even before I was born. We have not heard any problem or complaint from any patient. Also, we can ask him if something goes wrong as we know where he lives. We know most of the pharmacy daktars in this locality. They are not like MBBS doctors who come from outside and have a pharmacy chamber. If they do something wrong, they can stop coming, but pharmacy daktars cannot as they live within the community or nearby.”

Although unauthorised and unrecognised by the state, pharmacy daktars are undoubtedly the most accessible and affordable primary healthcare and medicine providers. Participants in this research think the inclusion of pharmacy providers in the formal healthcare delivery chain will benefit the wider population. In the next section, I present perceptions of and suggestions from the research participants about the potential of pharmacy daktar in the primary healthcare market in Bangladesh.

[56] Pharmacy Daktars claim that although most of the certifications are provided by private training providers claim that such programs run under acknowledgement of the Civil Surgeon (district head of health department) and use the designation and signature. The instructor or lecturers are often MBBS doctors, among whom many are government employee. I have observed advertising posters and collected photos where such links to local health administration used (e.g. under the direct supervision and approval of the ‘Civil Surgeon Sir’) to attract training receivers.

Perceived potentials of pharmacy daktars as support workforce in primary healthcare

Participants in all categories in this thesis echoed the necessity and benefits of recognising pharmacy daktars as formal healthcare providers. All of the participants suggested that training and recognising pharmacy daktars as 'supervised referral points', which they viewed, would support the primary healthcare delivery system and reduce the burden on formal physicians. One pharmacy daktar mentioned,

> "We now work at our own risk as unauthorised. But if the government can include us as a formal provider, we can even serve better community health. Of course, I agree that we need to work within certain limits of our knowledge, qualification and experience. Not all are now maintaining that because no regulations or strict guidelines are implemented. The government can fix this with proper guidelines, for example, how far we can serve and how to work in certain conditions of illness management for the patients. Well, the administration needs to be honest about that."

Formal physicians in my research share that retail pharmacy practitioners cannot be omitted as primary healthcare providers until the country produces enough medical graduates and registered physicians. Some doctors also added that even if the health system has enough physicians, ensuring their desired working environment with infrastructure and facilities will remain challenging in the public sector. However, participants also suggested the need for better implementation of the existing model pharmacy and medicine shop project along with establishing a proper referral network where retail pharmacy daktars can work under the supervision of registered public and private physicians. Doctor Iqbal explained the potential that sums up all the suggestions from the other participants. He said,

> "We cannot ban them overnight as many have over 20 to 30 years of practising history and are more experienced than many young medical graduates or interns. We need them in our system, but they must be well-monitored and guided. Say, if we can assign a certain number of pharmacy practitioners to registered physicians, they can operate more effectively. They will report to the physicians and get necessary guidance, they can refer patients to those physicians when they cannot deal with them, and they will remain accountable for their services as well. The government can also track their activities more easily and effectively apart from current drug admin surveillance. This will also lessen the load from drug admin to monitor such a larger number of retail pharmacies."

Like Dr Iqbal, many other formal doctors agreed with this opinion that some experienced pharmacy daktars are more skilled than new medical graduates or interns waiting for their license to practice. Community pharmacy operators in many countries are part of the formal healthcare delivery system playing an essential role in primary healthcare as providers and referral actors (Patouillard, Hanson and Goodman, 2010; Mossialos *et al.*,

2015; Watson *et al.*, 2019; Dzingirai *et al.*, 2020; Hasan and Nead, 2020; Hess *et al.*, 2020; Ayele *et al.*, 2021; Maidment *et al.*, 2021). Previous studies also noted that recognising present unauthorised pharmacy practitioners and providers would also serve in managing crises where the absenteeism and reluctance of formal physicians to serve are high (Chaudhury and Hammer, 2004; Darkwa *et al.*, 2015; Naher, Hutchinson, *et al.*, 2020). It is evident in the literature from many countries (Atkin and Lunt, 1996; Gilbert, 1997; Alnaim *et al.*, 2018; Ayele *et al.*, 2021; El Hajj *et al.*, 2021; López and Gallegos, 2022; Kaplan *et al.*, 2023) and in this thesis that pharmacy daktars have higher potential as effective healthcare providers at the community level and therefore can potentially contribute even more effectively if they are formalised and incorporated into the mainstream healthcare delivery systems. As my interlocutors suggested pharmacy daktars can contribute better if their services are recognised as formal and if they are trained and assigned under registered physicians. They also mentioned that pharmacy daktars can work as primary health screening points and referral hubs for registered doctors. This, as mentioned, will reduce the burden on registered public service doctors and pharmacy daktars can also work more efficiently to serve the community healthcare seekers. A few formal doctors in this research also echoed the same point (see Chapter Four, page 124). Evidence is available in the literature from different contexts. For instance, Sim et al., in their study showed that despite their significant role in primary care, pharmacists still face barriers to communicating and collaborating with other health professionals, mainly physicians. They suggested establishing a sustainable two-way referral process where pharmacists can play a better role in providing service (Sim *et al.*, 2020). In another study in Queensland, Australia, presenting some evidence from the UK, New Zealand and Canada, Rigby argued that medication reviews are one good example showing that pharmacists can assist general practitioners to improve patient care (Rigby, 2010). In the Nigerian context in 2014, Fabian and Noel N showed that doctor-pharmacist collaboration is very useful for effective patient-focused healthcare delivery and suggested encouraging such initiatives (Yilshal Fabian and Noel N, 2014). A 2021 literature review showed that the pharmacist-physician collaboration played the most significant role in delivering common health services and overcoming many challenges during the COVID-19 pandemic around the world (Waszyk-Nowaczyk *et al.*, 2021). My findings in this thesis are aligned with all these examples in the literature. Therefore, it is evident that formalising a supportive health workforce like pharmacy daktars is essential in countries like Bangladesh to improve primary health care delivery for care seekers.

Conclusion

Community retail pharmacies serve as one of the primary sources of medicines and affordable primary healthcare for consumers and patients in Bangladesh. However, the growing capitalist pharmaceutical and pathology markets influence pharmacy daktars, who might practise beyond legality and become involved in the unregulated dispensing of medicines. As this chapter shows, the field operations of drug control authorities are also questionable, given the high level of corruption that involves misuse of their power to extort money and threaten pharmacy daktars and retail pharmacies' survival. I showed how such corruption in the formal sector influences vernacularised biomedical practices and medicine dispensing culture. As participants mentioned, unauthorised pharmacy practitioners undertake 'immoral' and 'unethical' earning methods by selling unapproved drugs and bribing the authority to get exemptions from licensing or penalties. Corruption among public officials and immoral/unethical practices among pharmacy daktars thus become an undeniable part of everyday healthcare and medicine business shaping their everyday practices. Nonetheless, the existing unauthorised pharmacy practitioners, in general, contribute to primary healthcare and have the potential to support the health workforce more effectively. Still, they have to work under constant fear of their illegitimacy as yet to be formally recognised by the government. The significance of developing a standard retail pharmacy chain is immense. The key point is that if their life-saving skills, experience, and genuine caregiving motivations and intentions as providers in the community are not harnessed for the benefit of a well-functioning biomedical system and the community, then the public healthcare system must operate properly to serve the public and their healthcare needs. Challenges like 'corruption' and poor implementation of the current laws hinder the progress and potential of pharmacy daktars. In the next sections, I summarise this thesis's chapters and my closing remarks.

SUMMARY AND CONCLUDING REMARKS

In this thesis, I set out to explore and understand how biomedical authority functions and is practised without state legal authorisation at retail pharmacy shops in Bangladesh. The central interest motivating this research was my observations and experience with retail pharmacy owners locally known as *daktar* (doctors) practising biomedicine. With an ethnographic vignette of a pharmacy daktar as a practitioner, this thesis commenced in a rural village market in Bangladesh and subsequently in several other rural and urban locations. The thesis is conceptualised and informed by the medical anthropology argument that the authority in biomedicine for practitioners is not universal but is regarded and practised inversely in different cultural contexts (Hahn and Kleinman, 1983; Gaines and Davis-Floyd, 2004). This thesis aimed to understand how pharmacy daktars fit within biomedical legal policies in Bangladesh regarding authorisation to prescribe and practice and how related stakeholders (care seekers, authorised doctors, health officials and pharmaceutical companies) of the healthcare system view and react to pharmacy daktars' role in primary health.

The thesis is driven by some subsequent intriguing questions. For instance, how to analyse the position of unauthorised but mostly accessed primary healthcare practitioners at the retail pharmacies against the biomedical mandates and the state legal provisions about biomedical practitioners in Bangladesh? How to understand the current literature on medical pluralism with binary categorisation that locates biomedicine in a predominant position against all other forms of medical modality that are marked as alternative or complementary? In such a binary, how to analyse plurality within biomedicine in terms of practitioners' authority in practice, such as the unauthorised pharmacy daktars' role in primary healthcare in Bangladesh? As I have delineated in this thesis, many unauthorised practitioners across the country work as biomedical practitioners and providers outside the official/formal authorisation or recognition from the state medico-legal authorities but are clearly accepted and accessed by care seekers. I have shown how in fact, the authority of practitioners in biomedicine is vernacularised and hybridised in practice, and the reception of biomedical authorisation in practice in retail pharmacies is entangled with the needs of healthcare seekers and the interest of pharmaceutical companies, for example. In what follows, I present a synopsis of the discussions and arguments developed in this thesis.

Identity and authority of practitioner within biomedicine

I provided a historical background of the health systems and reform interventions undertaken by different governments to address the challenge of health workforce shortage across the county. As I have discussed, there are four major medical systems: biomedicine, Ayurveda,

Unani, and Homeopathy, which are legalised in Bangladesh's health policy. Evidently, biomedicine is in the foreground leading the country's healthcare systems in the public and private sectors. According to biomedical scientific mandates and the state health legal provision in Bangladesh, it was duly noted that only the registered MBBS graduates are authorised to prescribe and practice biomedicine. Any healthcare providers other than an MBBS are not authorised to prescribe and cannot claim authority as a biomedical practitioner. However, I have presented that health staff (e.g. medical assistants, nurses, and health administration staff or dispensary operators) in public health centres actively practice at their workstations and in retail pharmacies after-hours, offering consultation, prescriptions and treatments. Apart from those, retail community pharmacy owners with their state-disapproved medical qualifications commonly practice biomedicine based on work experience at their shops and patients' home. Bangladeshi patients and care seekers generally access retail pharmacies as their first point of contact for primary (also for instant urgent) healthcare and medicines. In my ethnographic analysis, I argued that while pharmacy daktars are not formally recognised or authorised by the state to prescribe, healthcare seekers in general access and accept them as primary biomedical practitioners to get health advice. Notably, healthcare seekers do not have a choice or control over the practitioners' credentials to verify their authenticity.

Such existence of 'substandard' biomedical qualifications is also linked to the country's previous primary health structure reforms and interventions. As in different political regimes, the country experienced the enactment and revocation of programs like village doctors (VDs) with Rural Medical practitioners (RMP) or Licentiate of Medical Faculty (LMF) certificates to support the health workforce to meet the gap in the shortage of MBBS doctors. While such programs were abandoned by the later governments and prohibited anyone from practising without MBBS, many such minor qualification holders continue to practice based on their pharmacy shops in rural and urban locations and remain popular as they with customers and patients. In describing 'deviant' (as outside the state and biomedical authorisation) forms of biomedical practices and qualifications of the practitioners, I analysed the question of who are actually the legitimate biomedical practitioners in the primary healthcare sector in Bangladesh. As presented in this thesis, the active presence of different unapproved qualifications indicates that the actual practising biomedical authority, in contrast to state policies, is ambiguous at local levels. Such biomedical alternative practitioners raised questions regarding the meaning of state-defined biomedical authority that, in reality, is altered and reshaped on the ground in cultural practices. Such formation of biomedical plurality suggests a need for a rethinking of the study of medical pluralism that can aid in the explicit discussion of variations and plurality within biomedicine and its implication for health policy, patients, practitioners and providers.

In this thesis, I have also discussed the limitation in the existing literature regarding unauthorised pharmacy practitioners and the reductive categorisation of them as rural medical practitioners reflected in the common term 'village doctors' or 'VDs'. However, I have presented evidence that, based on their pharmacy, such unauthorised practitioners are active across the country regardless of geographic location. Qualifications like RMP and LMF can be found in central urban areas (such as in the capital city Dhaka) who are practising and serving the community for many years. From the perspective of patients/consumers, some have a well-reputed career as family doctors. I have argued that, theoretically, such cultural vernacularisation of biomedicine in terms of practitioners' authority differs from the state or biomedical rationality and legality (Weber, 1947; Kalberg, 1980). Instead, pharmacy daktars build their base as healthcare practitioners through their performative and charismatic authority (Hollin and Giraud, 2017) in the eyes of their customers and thusly gain and sustain care seekers' trust. I have argued that the community healthcare seeker's widespread use of pharmacy daktars indicates biomedical authority is not unique or exclusive for formal physicians or doctors; instead, it operates as a 'system amongst systems' (Lock and Scheper-Hughes, 1996). The cultural authority of pharmacy daktars and their active presence within the niche of biomedicine explains that biomedical authority could be 'taught, practised, organised' differently in the local cultural context beyond the state legal framework (Good, 1995, p461) and persistently received by consumers as I discussed in this thesis.

Pharmacy daktars and retail biomedical services

In this thesis, I have provided a detailed description of different healthcare services that people can find in a retail pharmacy shop in Bangladesh. I showed such services include the practitioners' consultation for a minimal cost or free and medicines with advice on brand use. The role of community pharmacy daktars can save lives with their round-the-clock availability for local patients and as first aid providers in emergencies. From the view of certain formal doctors, pharmacy daktars are quacks who do risky practices, and in the eyes of the state authorities, they are not approved to prescribe or practice. The crucial point in this role of pharmacy daktars is that they might be state unapproved practitioners, but they are not fake doctors. There are groups of biomedical practitioners who use falsified MBBS certificates and practice as a doctor. Although a few pharmacy daktars are included in such fake doctor groups, most pharmacy daktars, as I have detailed in the ethnographic chapters, use their short certification and medical qualification to claim their biomedical identity despite it being unapproved by the health authority. As I delineated in this thesis, the state authority often considers a practitioner as fake when any falsified MBBS degree is used or a crude role of a physician is performed, such as doing major surgery in a clinic or hospital. Thus, in line with

medical anthropologist Charles Leslie's analysis, I have argued in this thesis that pharmacy daktars offer a form of 'quackery' rather than charlatanry or what is considered fake (Leslie, 1980, p. 193) to contribute to community primary healthcare needs as complementary support to the formal healthcare delivery systems. The authority of pharmacy daktars in retail biomedicine work through everyday exchange relationships between care seekers and them as practitioners where pharmacy daktars achieve their position and reputation by performing several strategic and impressive activities for their patients and customers (Goffman 1967 cited in Fields, Copp and Kleinman, 2006; Goffman, 2012). As illustrated in the ethnographic chapters, pharmacy daktars offer free health advice, respond to emergency calls at home, accompany patients in hospitals, or refer them to a formal doctor for better service. As biomedical practitioners, their shop decoration, dress and attitude, and personality are also part of such symbolic interactions and impression creation. Many pharmacy daktars have years of experience and building a reputation over the years of their practice and have become renowned for their practical healing skills and moral support to patients in addition to their cost-effective services. What they provide, thus, contrasts with the high cost of formal physicians in the private sector and low quality of service in public facilities. I showed that the popularity of pharmacy daktars is also influenced by various other factors in Bangladesh's healthcare structure, including cost, time, and distance tangled with the difficulty of accessing formal biomedical practitioners. Formal physicians' tendency to stay and only serve in central city locations also makes pharmacy daktars a popular access point for healthcare seekers in areas where formal or public healthcare is distant from the people.

Health crisis and the role of pharmacy daktars

Besides their general contribution to primary healthcare, I illustrated how pharmacy daktars played a key role as healthcare providers during the COVID-19 pandemic days when formal providers were reluctant to work. The formal healthcare sector failed to function during the early pandemic incubation and was also mired in mismanagement; corruption in activities surrounding infection control which ultimately resulted in public suffering. I have discussed that the COVID-19 pandemic triggered many frauds in healthcare settings in Bangladesh, where the state loopholes were used, leading to corruption in pandemic related medical equipment distribution and sale. The state healthcare policy to combat the COVID-19 outbreak also ignored the broader public health interests. As I discussed in the ethnographic chapters, the state's disapproval of the rapid antigen test kits and reliance on expensive and privatised testing policy affected and hindered the public's ability to access low-cost testing facilities and effective management of infections. In this context, formal doctors stopped their practice in fear of infection, but pharmacies continued to serve even with a high risk of contamination as

being close to the community (Ashiru-Oredope *et al.*, 2020; Dzingirai *et al.*, 2020). I have argued that the COVID-19 pandemic also revealed the importance of retail pharmacies and pharmacy daktars working at the grassroots level of primary healthcare delivery as frontline healthcare providers to support people's needs in the context of the near total collapse of the mainstream healthcare structure in Bangladesh. My findings in this thesis reveal that despite their unauthorised status, pharmacy daktars generally are available 'practitioners at doorsteps' as they live and work close to the local community in Bangladesh. They also act as tangible contributors to primary healthcare during health crises such as the Covid-19 pandemic. However, as detailed in Chapter Four, the unauthorised practices by pharmacy owners/operators, given the lack of their supervision and proper regulation, also produced certain risks to the public health.

Unregulated pharmacy practices and potential risks

The role of pharmacy daktars has always been contested on medical legality and authority questions due to their unrecognised status and unapproved activities in retail healthcare settings. It is clear that the care seekers access pharmacy daktars regularly for their health needs. However, unauthorised and unskilled prescribing and dispensing of prescription medications such as antibiotics and antidepressants by pharmacy daktars and operators is also a problem, as noted by formal biomedical practitioners and researchers as well as some of the care seekers I interviewed. As evidenced in several cases discussed in this thesis, unskilled patterns of prescriptions, writing incompetency, responding to patients' self-medication requests, and unregulated drug dispensing by pharmacy daktars could negatively affect patients. However, my ethnographic accounts also make it clear that pharmacy daktars intend to serve and provide good care and not cause any harm to their patients. However, they can lack the proper knowledge and skills to appropriately prescribe or test treatment methods on patients (Arifeen El *et al.*, 2013; Roy *et al.*, 2020), which can create unintended consequences (Merton, 1936) leading to misdiagnosis due to their misunderstanding patients' illness accounts (Farmer *et al.*, 2013). In some cases, pharmacy daktars' profit interests can trigger such experimental activities that may also be demanded by the care seeker looking for a quick health remedy (Saha and Hossain, 2017). In addition, I have illustrated pharmacy daktars' entanglement with the larger market of prohibited, counterfeit and sub-standard drugs and medicines that they might prescribe and sell in their retail shops. Several banned drugs are sold in the open market in retail shops, often recommended by registered doctors or requested by the patients/customer.

I have argued that such contexts open more scope for further research to gain a deeper understanding of such subjective experiences and related public health consequences. I have

also argued that the consequences of pharmacy daktars' unregulated and trial activities might be unintended but commonly anticipated (Zwart, 2015) by related stakeholders in the healthcare market (formal doctors, pharmaceuticals and health officials) in Bangladesh. This also includes many healthcare seekers since they are aware of pharmacy daktars' position outside the state legality and the availability of banned and counterfeit drugs in the market. My thesis reiterates the arguments previously noted that the extent and frequent use of prohibited drugs in retail pharmacies are the results of the weaker implementation of related health and drug policies and ill-managed health governance, including monitoring and controlling good pharmaceutical practices (Chowdhury, Ahasan and Rahman, 2006; Habib *et al.*, 2020; Murshid and Haque, 2020).

The cultural economy of health and the question of healing over authority

Despite the risk associated with unregulated activities by pharmacy daktars, my research findings for this thesis indicated that overall, local healthcare seekers consider retail pharmacy daktars beneficial as they offer low-cost, easily accessible and urgent healthcare services and advice on medication choices. I argued that people's way of classifying practitioners' behaviours as 'appropriate/inappropriate, moral/ immoral and legal/illegal' in their specific cultural point of view needs to be understood in the 'context of local standards and practices' (Haller and Shore, 2005, p. 17). In such context, the moral economy of local healthcare enables the pharmacy daktars to have a strong and persistent position as biomedical practitioners among the care seekers. I suggest that understanding the activities and business of pharmacy daktars needs to place their role in the context of the biomedical market as a local cultural economy under the broader political economy of healthcare in Bangladesh. Moreover, pharmacy daktars endure business challenges due to their lack of legal status as practitioners but survive in a competitive marketplace by offering low-cost healthcare and building an ongoing moral relationship with their patients and customers. However, as I have shown, pharmacy daktars' motivations for their profit interests are derived from different influential factors, such as loopholes in the state health governance and the provocation of the pharmaceutical representatives and industry, as detailed in Chapters Five and Six. In particular, I elaborated on pharmaceuticals' views and actions in the Bangladesh healthcare market in determining medical practitioners to promote drug marketing through their sales representatives.

Pharmaceutical influence on unauthorised biomedical practitioners

As revealed in this thesis, despite their awareness of pharmacy daktars' unapproved identity as biomedical practitioners, pharmaceutical companies account for retail pharmacy operators

as doctors and work with them to regenerate prescriptions and sales. They accomplish this task via the rigours training of their Medical Promotion Officers (MPOs). MPOs are trained to work with both registered doctors and retail pharmacy owners and maximise the chances of prescription generation by considering pharmacy practitioners regardless of their authenticity. Through MPOs and marketing managers, pharmaceutical companies offer gifts and money to practitioners in exchange for drug-specific scripts. They also track the prescription later to ensure the suggested medication is being used. The activities of MPOs are monitored by their marketing managers and digital reporting systems, whereas MPOs keep track of practitioners' prescriptions and selling patterns in retail pharmacies. As such, I have suggested that the concept of surveillance in the existing social science literature (Foucault, 2008; Khazzaka, 2019) works differently in the biomedical medicine market of Bangladesh context.

Gift and money exchange between medical practitioners and pharmaceutical companies is a well-known fact that is reiterated in this thesis with additional information about the interaction between drug companies and unauthorised pharmacy daktars. My analysis in this thesis contributes to the theorisation of gift and bribing in social science. I have argued that the concept of gift and bribe are entwined in their purposive use in healthcare. The meaning of bribing is embedded in the conceptualisation of gift-giving to prescribers and sellers using a twisted meaning of local gift traditions but eventually acting as marketing wares (Katz, Caplan and Merz, 2003; Shah, 2020).

Besides the discussion on the ingrained market of counterfeit and substandard medicines, this thesis also brought new findings regarding the medicine quality relating to the price in the local market in Bangladesh. I analysed a suspected but less discussed matter of a relatively new notion: the *microgram politics* in medicine. I showed that even legitimate pharmaceutical companies produce medicine with quality abridged by reducing active pharmaceutical ingredients (API) in medicines to the least permissible amount on global standards. I argue that such a legitimate reduction in medicine quality compromises the efficacy of the medicine but helps pharmaceutical companies accumulate a surplus profit. I also observed an emerging trend of mixing different types of drugs/ingredients (allopathy with herbal) by the local unregulated and illegal drug manufacturers across Bangladesh. Many pharmacy daktars act as selling agents of both local counterfeit and substandard medicines. I argued that the more concerning issue is registered companies' drug adulteration and manipulation of pharmacological ingredients affecting public health because this is hidden in the production process and beyond the authorities' capacity to prevent.

The state rules and survival of unauthorised pharmacy practitioners

In the closing chapter of this thesis, I reviewed the existing projects of the Bangladesh government that aim to improve and establish a systematic and regulated pharmacy management chain ensuring good medicine dispensing practice. However, the pharmacy management project was reported to be slow and inadequate in progress and affected by corruption among officials and retail pharmacy owners. Since such projects are implemented with the more intense investigation against unauthorised practices in recent times, the pharmacy practitioners in my thesis must live in constant fear of being arrested or penalized. Pharmacy daktars, because of their unauthorised status, remain under the monitoring of the local drug administration officers and are exploited for money. I argued that pharmacy daktars work under dual surveillance (Ragnedda, 2011); one is pharmaceutical companies' tracking of their practices, and the second is state officials' records of their unauthorised activities. However, pharmacy daktars also have a network of information through which they keep track of ongoing or upcoming investigations by the officials. I revealed that people in Bangladesh generally consider any unlawful or immoral acts as corruption regardless of the institutions or sector. However, as I have discussed, care seekers in this thesis consider pharmacy daktars' activities beyond legal frameworks as small or minor corruption and consider their positive role in community health from a moral point of view.

Analysing the broader scale of corrupt activities by the state officials and the immoral actions of pharmacy daktars as minor, in this thesis, I have argued that 'unethical' activities for profit or personal gain have become integral parts of everyday life. I discussed that institutionalised corruption practices at a wider level and morally deviant cultural practices at retail pharmacies become *Habitus*; an inseparable entity embedded in everyday practice in the local health business in Bangladesh. I concluded that these also act as challenges towards establishing an operational pharmacy system as well as effective use of pharmacy daktars in main healthcare delivery systems. My findings also revealed that a more inclusive policy implementation by incorporating pharmacy daktars as recognised formal healthcare providers can support meeting gaps of the registered doctors and strengthening primary health at the community level.

Academic and policy implications

My findings and discussions in this thesis provide a new understanding of the academic conceptualisation of biomedical pluralism and recommendations for policy implications about unauthorised pharmacy daktars and their role in primary healthcare in Bangladesh. In this thesis, I have presented new information to suggest the need for a more nuanced

understanding of medical pluralism that better accounts for biomedical pluralism and how it is constituted in local practice contexts. While medical anthropologists and public health scholars have observed variations and plurality within cosmopolitan (biomedical) medicine, their analysis of medical pluralism does not overcome the established binary categorisation of medical modalities. In this binary categorisation, biomedicine dominates as the central and formal, while all other medical modalities remain complementary and alternative to biomedicine and informal. Thus, studying the coexistence of different medical systems with biomedicine is considered the study of medical pluralism. However, I illustrated that there are variant cultural ways of authority and practice of biomedicine in the local contexts, and biomedical authority itself can be plural and variant. Biomedicine at retail pharmacy levels in Bangladesh, I argue, therefore, in no way remains singular/unique/universal; instead, it has been reproduced, innovated and altered in its adoption.

There is also a formal/informal binary categorisation within biomedicine. For instance, in Bangladesh, as I discussed, the state-registered physicians are considered exclusively formal, and any others outside the state legitimacy (e.g. unauthorised pharmacy daktar in this thesis) as informal. However, I argue that pharmacy daktars may lack the authority to practice being unrecognised or unauthorised by the state, but they should not be merged with or be located under the informal sector because they are directly attached to the formal biomedical interlocutors (e.g. formal physicians, pathology diagnostic centres, pharmaceutical companies) and work within formal biomedicine market. My ethnography indicates that the study of medical pluralism needs a rethinking, specifically in the study of vernacularised and retail biomedicine, in terms of practitioners' authority considering biomedical plurality in Bangladesh, which also could apply in similar cultural contexts.

Apart from addressing my central enquires, my ethnography also revealed several sensitive and critical information about the healthcare settings and the pharmaceutical medicine market in Bangladesh. I could not elaborate on those in this thesis, but they opened the scope for further research. For instance, issues related to medicine preservation and transportation affecting quality, medicine stock in the wholesale market and related complexities show demand for further research in this field. Pharmaceutical waste management and related human and biodiversity or environmental hazard are some crucial points to explore in the Bangladesh context. I touched on the local mixing of different substances in popular brand drugs and illicit drugs flowing in the Bangladesh retail market from abroad. These are some interesting and critical issues to understand further the cultural and political economy of health in Bangladesh and similar contexts that I could not elaborate in this thesis.

This thesis also contributes to the local health-related literature within Bangladesh. I discussed that the popular understanding of unauthorised biomedical practitioners in pharmacies is confounded in a narrow focus, limiting them as 'rural' based on their historical positioning as rural practitioners or village doctors. I presented evidence and argued that these alternative biomedical qualifications must be analysed based on their workstations instead of their course certificates because they are available widely across the country, including central urban areas, as discussed throughout the chapters. Some substantive suggestions also derived from this thesis for effective policy implementation in Bangladesh health systems regarding biomedical practitioners, their authorisation and practical use. The inclusion of the existing unrecognised pharmacy daktars as formal healthcare providers into the mainstream healthcare delivery systems was found to be beneficial to the broader public health structure, as is evident in many other country contexts (Patouillard, Hanson and Goodman, 2010; Mossialos *et al.*, 2015; Watson *et al.*, 2019; Dzingirai *et al.*, 2020; Hasan and Nead, 2020; Hess *et al.*, 2020; Ayele *et al.*, 2021; Maidment *et al.*, 2021). For instance, in this thesis, I suggest that pharmacy daktars with well-regulated training could be brought under the supervision of formally registered doctors to work as their subsidiary workforce and referral point for patients. Through such steps, pharmacy daktars, on one side, can contribute more effectively with more confidence and transparency as recognised providers. On the other side, the state healthcare delivery system can use the pharmacy daktars to address the shortage of qualified biomedical practitioners at grassroots levels and hard-to-reach locations (Ahmed and Hossain, 2007; Parr *et al.*, 2012; Arifeen El *et al.*, 2013; Adams, Islam and Ahmed, 2015; Rahman *et al.*, 2015; Rakib *et al.*, 2015; Ahmed *et al.*, 2017; Billah *et al.*, 2018; Shah, 2020; Roy *et al.*, 2020; M *et al.*, 2021). Finally, recognising and formalising the present unauthorised pharmacy daktars will also reduce and prevent 'unethical' practices and corruption related to biomedical authorisation processes.

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Appendix: Glossary of Bangla terms and phrases

Apatoto kaj chola	Purpose served for the moment
Baki	On credit
Bandha Daktar	Permeant/family doctor
Bater betha	Arthritis pain
Beshi pash kora Daktar	More educated and qualified doctor
Beybsha	Business
Bhai	Brother
Bipod er sathi	A friend in need/emergency
Boro	Big/larger/major
Boro Daktar	Big doctors (formal/specialised/famous)
Boro durniti	Big/larger scale corruption
Choto	Small or minor
Choto Daktar	Small doctor/doctor with minor qualifications
Choto durniti	small/minor corruption
Dakat	Dacoit/robber
Daktari beybsha	Medicine business (practising and selling)
Daktari o Oshudh Bebshya	Business of medical practice and medicine selling
Dibba	Pot/jar/container box
Dokan	Shop
Dokan er Daktar	Pharmacy Daktar/practitioner
Durniti	Corruption
Dushchinta	Tension
Ghum	Sleep
Ghumer Somossya	Sleeping problem/sleeping difficulties
Ghush	Bribe
Gorom Sek	Warm compress
Gram	Village
Gramer bazar er Daktar	Village Doctor/doctor in village market
Haater Josh Valo	Magical hands in practice
Hakim	Unani Partitioner
Halkhata	Yearly event to collect pending payment for traders
Haater betha	Pain in wrist/hand
Hature Daktar	Quack

Hujur	Preacher/Imam/religious leader
Kabiraj/Vaid/Boidhya	Ayurveda practitioner
Kalijira	Black Cumin
Kata pata	Spited Stripes of medicine pack
Khali pata	Empty strip
Kom pass kora Daktar	less educated or qualified doctor
Korola	Bitter Gourd
Mama	Maternal Uncle/General term to address anyone in informal communication
Oshudh	Medicine
Pangas fish	Pangasius
Pani or Tel pora	Spelled water/oil
Somossya	Problem
Sudhhi Obhijan	Corrective expedition/investigation campaign
Tadonto	Investigation
Thankuni pata	Indian Pennywort leaves
Tilapia fish	Oreochromis Niloticus