





Child feeding practices and concerns: Thematic content analysis of Thai virtual communities

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Abstract

Parents' child feeding practices are influenced not only by family but also by a broader circle of networks, including online groups. Peer-to-peer platforms such as Facebook groups facilitate a learning environment and may influence the transmission of user-generated content into practice. These digital data not only benefit participants but also offer new opportunities for researchers to study related phenomena. Therefore, this study employs thematic content analysis to investigate peer-exchanging discourse conveyed in Facebook peer-support groups in children's diets in Thailand. To identify the area of interest, we classified and quantified the initial posts and investigated the relationship between initial posts' contents and community engagement. Thematic analysis was used to qualitatively describe the peer-exchanging content that responded to the initial posts. Of the five approved Facebook groups, 200 initial posts with their 1964 comments were extracted anonymously. Results revealed that Facebook groups devoted to diets for children have become a platform for Thai parents to seek informational and emotional support. The top-ranked initial posts were related to requesting knowledge and skills about age-appropriate food and meal preparation. Parents have also expressed anxiety about feeding and tension related to food fussiness which created the need for emotional support. Age-appropriate feeding, homemade baby foods, concerns about food seasonings and food allergy awareness were observable within online groups. However, a shift from traditional child feeding practices to new ideas created cultural gaps which lead to arguments in some families. Understanding these views would help guide to address parental concerns better.

KEYWORDS

child feeding, content analysis, parental feeding practices, qualitative methods, social media, support groups, Thailand

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1 | INTRODUCTION

Social media is an emerging trend contributing to the diffusion of knowledge and information. In Thailand, active social media users were approximately 58% of the total population in 2015, then rose sharply, reaching three-fourths of the total population in 2020 (Kemp, 2020). As social media platforms are designed to promote human interaction (Adewuyi & Adefemi, 2016), the increasing number of social media users produces a new form of community-based communication. This provides the opportunity to exchange peer and social support through online interaction. In recent years, social media has led to an increased number of online support groups. This type of online participation can go beyond simple information sharing. A peer-exchanging discourse in online support groups can be an influential source of social and health information for those who have similar concerns and experiences (Peterson, Gaysynsky, Chou, & Rising, 2019; Wright, Johnson, Bernard, & Averbeck, 2011). Although social media and online support groups on health issues are growing rapidly, there has been limited academic study of existing virtual communities in developing countries, including Thailand.

The transition to parenthood presents many challenges leading new parents to seek social support from family and community members (Belsky & Rovine, 1984). Today's virtual communities or networks may offer new avenues for the larger-scale diffusion of knowledge and practices instead of relying on a small circle of friends and family members. It appears that social media and online support groups have recently gained attention from many parents and led them to access social support and information on raising healthy children (Asiodu, Waters, Dailey, Lee, & Lyndon, 2015; Bartholomew, Schoppe-Sullivan, Glassman, Kamp Dush, & Sullivan, 2012). These emerging online communities may be particularly important for parents who have difficulty getting support from healthcare professionals, such as parents who live in rural areas or have a geographical barriers to accessing healthcare facilities regularly. They would also benefit parents who wish to seek additional advice or tailored information from other parents. As this is a communicative phenomenon, the social activities within online groups, such as posting, commenting and observing, facilitate social learning and construct and disseminate social norms. Individuals' practices may be shaped by the social norms that are circulating through peer exchanging within online communities (Doub, Small, & Birch, 2016). Parents' child feeding practices and beliefs may be influenced by the descriptive and in particular injunctive social norms based on the theory of normative social behaviour (TNSB). Descriptive social norms refer to common observable behaviour within an online group, whereas injunctive social norms refer to what parents think ought to be done through communication with referent online parents. A growing body of literature has revealed that parents, especially younger mothers, are actively engaged in an online social network (Nolan, Hendricks, Ferguson, & Towell, 2017). Previous work on social media on infant and young child feeding has focused on exploring the parental experiences of using digital media and describing contents made especially within online breastfeeding support group (Asiodu et al., 2015; Regan & Brown, 2019; Skelton, Evans,

Key messages

- As the influence of child feeding-related online support groups is a relatively new trend in Thailand, observing this phenomenon can provide a wealth of relevant information for healthcare professionals.
- Online peer-support groups, which are not limited by time, geography and socioeconomic status, have become a platform for parents to seek informational and emotional support.
- Age-appropriate feeding, homemade baby foods and concerns about food seasoning and food allergy were the observable beliefs and practices within online groups.

& LaChenaye, 2020). A recent study has been carried out aimed at evaluating the effects of social media platform on parental feeding behaviours and child dietary intakes (Dumas et al., 2020). However, there is limited evidence on what child feeding beliefs and practices are currently embedded in user-generated content within the online social network in developing countries.

Thai children are facing both overnutrition and undernutrition. Recent evidence from Multiple Cluster Indicator Survey (MICS) found that almost one in 10 children were overweight, and 10.5% of children were stunted (National Statistical Office & UNICEF, 2016). Also, micronutrient deficiency remains a challenge. For instance, anaemia was present in 26% and 42% of 0.5–2.9 years old children in an urban and rural area of Thailand, respectively (Rojroongwasinkul et al., 2013). During early childhood, parents' feeding practices influence children's health and weight status. While feeding practices play a key role promoting children's health, previous research has found that Thai parents have inappropriate child feeding beliefs and practices, such as inadequate food diversity, and the early introduction of complementary foods and seasonings (Joshi et al., 2012; Kittisakmontri, Fewtrell, Roekworachai, Phanpong, & Lanigan, 2019; Roesler, Smithers, Winichagoon, Wangpakapattanawong, & Moore, 2018). The early introduction of rice and water is also the common reason of failure of exclusive breastfeeding (Winichagoon, 2013). Whereas, without adding sugar in complementary foods might reduce sugar intake at later life (Foterek et al., 2016). Furthermore, an early intake of salt might develop a preference for salty taste (Strazzullo, Campanozzi, & Avallone, 2012).

The literature has focused on the mother's knowledge and attitudes as a result of individual-level influence on child feeding practices. There is little information about the role of social media, as part of the external social environment, on parental feeding beliefs and practices. As the use of social media has increased among parents and may impact child feeding practices, more research is needed to understand these existing platforms' content. Online peers' discourse, which was not generated with the primary purpose for research, could be

used to investigate the parental perceptions, attitudes and behaviours from the ground. Exploring these user-generated contents could help healthcare professionals to expand their understanding of existing circumstances from the purviews of parental feeding sphere. The information gaps and needs and the social norms that exist within virtual communities could help guide practice and policy to better harness parental influence on children's food and nutrition.

This study describes peer-exchanging discourse conveyed in Facebook peer-support groups in children's diets in Thailand. Specifically, the first study aim was to identify the areas of interest related to feeding young children among Thai parents. The second was to identify the content features that promote user engagement within Facebook peer-support groups in children's diets. The third aim was to qualitatively describe the peer-exchanging content that responded to support seekers within Facebook peer-support groups in children's diets.

2 | METHODS

2.1 | Data collection

To identify Facebook peer-support groups in children's diets, two researchers individually searched by using the phrases 'healthy diets for children' (อาหารสุขภาพสำหรับเด็ก), 'food for children' (อาหารสำหรับเด็ก), 'children's menu' (เมนูสำหรับเด็ก) and 'children's meal ideas for new mother' (ไอเดียอาหารเด็กสำหรับแม่) in Thai language into Facebook's built-in group search on December 9 and 10, 2019. These four search phrases were formulated based on the keywords of the reported names of social networking sites usage as a source of child feeding information for Thai parents (unpublished data from our previous survey study). Each single keywords was then incorporated into the multiple keyword strings and initially tested with Facebook's built-in group search. The final four search phrases were chosen as they retrieved a comprehensive and large number of Facebook groups related to child food and nutrition in Thai language. This search generated 39 related Facebook groups. Membership ranged from 1 to 250,000 community members. The first 21 groups, with more than 1000 members, were reviewed. The inclusion criteria were (a) the group is administered by a parent of Thai children (not an organization, company or healthcare professional), (b) written in Thai language and (c) focuses on a peer discussion of diets for children. One Facebook group, which has a name related to food allergies, was excluded from the 21 groups because it was a Facebook buy and sell group. Introductory messages and information sheets were sent to the administrators to get approval before collecting data. Of the 20 administrations who were contacted, seven responded, and five completely approved the data collection. There were three public and two private groups.

To create the dataset, the most recent 40 initial posts and their comments, excluding posts of shared food recipes, were extracted retrospectively from five Facebook groups. Each post and comment was manually copied and pasted into a Microsoft word file. Any identifying information was omitted from data collection. The identifiable

member and group were also not recorded. This resulted in 200 initial posts and 1964 comments.

2.2 | Data analysis

2.2.1 | Facebook posts

An iterative content analysis process (Hsieh & Shannon, 2005) was used to identify the area of interest related to feeding young children among Thai parents. All initial posts were coded using the Atlas.ti program. The occurrence of each code was identified as the topic of interest among Facebook peer-support groups in children's diets. All initial post threads were then transformed into quantitative categorical data based on codes. The dataset was then put into the SPSS program to describe descriptive statistics in engagement metrics between the different categories of post. Community engagement was measured in the number of comments, likes, shares and engagement levels (the sum of the number of comments, likes and shares).

2.2.2 | Facebook comments

Inductive thematic analysis (Braun & Clarke, 2006) was used to explore the comment threads to gain an in-depth understanding of peer-exchanging ideas on child feeding beliefs and practices in social network groups. The first step in the analysis was to become familiar with data by reading and re-reading the dataset. Initial codes were then developed inductively without trying to fit them into a pre-existing coding frame. Similar codes were then combined into themes. Upon the completion, the themes were reported with illustrative quotations.

2.3 | Ethical considerations

Ethical approval was obtained from The Australian National University Human Research Ethics Committee (ref: 2019/891). To create the deidentified textual dataset, researchers contacted group administrators to get approval for data extraction. Group administrators, as a representative of the community, were then asked whether they approved the project information being posted on the Facebook page to allow members the opportunity to opt out of having their posts included in the study. The group administrators could also report any concerns or check the dataset to ensure that confidentiality is protected during the data collection.

3 | RESULTS

3.1 | Areas of interest of Thai parents in terms of young child feeding

A total of 200 initial posts were analysed to identify the area of interest related to feeding young children among Thai parents.

These posts introduced a wide range of issues that lead to seven codes with 27 subcodes that emerged in this dataset. These seven codes were loosely grouped into three topics: seek information, express emotion and share information and food advertising. As some of these 200 initial posts introduced more than one issue in the same post, 290 excerpts were coded in total. Table 1 lists all these codes and subcodes in descending order of the occurrence.

3.1.1 | Seek information

Facebook groups related to young child feeding practices clearly were a platform for members seeking information ($n = 216$, 74.5%). Among these information-seeking posts, the most mentioned requested for advice on appropriate feeding practices ($n = 91$, 31.4%), menu and cooking advice ($n = 75$, 25.9%), and requested instruction on how to handle feeding problems ($n = 33$, 11.4%). Within the subcoding framework, information on appropriate feeding food, age-appropriate feeding menu, food products and problems with picky/fussy eaters made up a substantial proportion of request from support seekers. The next most common were posts seeking advice on nonlocal food or ingredients, mealtime frequency, quantity, cooking tips and kitchen appliances. Additionally, as information seeking from peers with similar experiences could reduce stress and uncertainty for those dealing with child feeding problems, some members clearly asked advice or opinion from online peers who were in the same situation ($n = 17$, 5.9%).

3.1.2 | Express emotion

Many members experienced stress and anxiety related to child feeding clearly expressed their emotion on the initial posts ($n = 51$, 17.6%). They were mostly concerned about finding ways to get their child to eat. Group members also expressed some concerns with underweight or malnourished and constipation problems. On the other hand, over-feeding was less connected to parental anxiety regarding child feeding. Expressing emotions resulting from arguments with family members about complementary feedings was less common in terms of the number of posts. However, this content gained a higher number of reactions, as indicated by the number of comments, reactions and shares.

3.1.3 | Share information and food advertising

Only 7.9% of code in the initial posts ($n = 23$) involved information sharing or homemade/local food product advertising. The most common information sharing was related to food safety and health claims on particular food, such as food for brain or immunity-boosting, followed by appropriate feeding practices, food product reviews and food sources of key nutrients. Less common initial posts were

advertisements for homemade/local food products ($n = 2$, 0.69%). All homemade/local food product advertisements claimed to minimize or eliminates unhealthy substances.

3.2 | Group members' engagement with initial post categories

To understand the content features and degree of engagement, the initial posts were classified based on the previous coding scheme. As support seekers sometimes expressed their anxiety when they had to deal with child feeding problems within the same information seeking posts, there were three initial post categories: (a) information seeking posts, (b) information seeking with emotional expression posts and (c) share information and advertising posts. Overall (Table 2), when compared with shared activity, it appeared that the number of likes and numbers of comments has the highest contribution to engagement values in all initial post categories. Initial posts seeking information that also contained emotional expressions clearly generated the highest number of reactions compared with posts that only sought information or posts that shared information and advertising.

3.3 | Child feeding beliefs and practices

As appropriate child feeding practices and managing child feeding problems were the most popular topics among group members, we used thematic analysis to explore these issues to understand the nature of peer-exchanging content circulated within online groups.

3.3.1 | Appropriate child feeding practice

Whether community members seek menu suggestions, advice on feeding practices or food product recommendations, the online groups presented a consistent picture of what they considered appropriate child feeding practices. Providing age-appropriate feeding, avoiding the use of seasoning for under 1-year-old child's meal and being allergy aware when introducing baby to solid food are predominantly concerns among members in all Facebook peer-support groups in children's diets.

Providing age-appropriate feeding

The concept of age-appropriate feeding practices has a heightened awareness in these support groups, which was highly visible through the majority of threads. Members always mentioned their child's age when asking questions, sharing personal experiences or advices on child feeding practices:

Could you please suggest a meal for a 6-month, 11-day-old child?

TABLE 1 Coding scheme and frequencies of topics raised in the initial posts

Code	Frequency (%) (n = 290)	Description	Subcode	Frequency (n = 290)	Example
Topic: Seek information					
Request for advice/opinion on feeding practice	91 (31.4%)	Content asking for support in the sense of appropriate feeding practices in various aspects, including food types, food products, nonlocal foods, meal planning and feeding patterns	Appropriate feeding food	43	Which type of liver I can offer to my child?
			Food products	22	Are these sauces suitable for children age more than 1 year old?
Request for menu suggestion/cooking advice	75 (25.9%)	Content asking for support related to mealtime preparation and cooking skills	Nonlocal food/ingredient	15	Can I offer avocado as a light meal to my child? Is it ok to have with other fruits?
			Mealtime, frequency and quantity	11	What time should I feed my 8 month-old child for 2 meals a day feeding plan?
			Age-appropriate menu	35	Could you please suggest a meal for a 6-month, 11-day-old child?
Request for advice to handle with feeding-related problem	33 (11.4%)	Content asking for support on coping feeding related problems	Cooking tips	14	Do Japanese cucumbers need to be peeled before cooking for children?
			Cooking appliances	11	Which model or brand of baby food blender is good?
			Meal idea for travelling/special occasion	5	How to prepare food for travelling? Should I buy commercial baby food?
			Homemade sauce/stock	4	Could you please share how to make homemade tomato sauce?
			Where to buy	4	Where can I buy fresh meat for my child?
			Weight-gain menu	2	My child doesn't like to eat minced/chopped food. (S)he refuses to eat recently. Could you give me some advice and menu for gaining weight? Thank you!
			Picky/fussy eaters	22	My 1-year-old child doesn't eat at all. Do you have any menus to recommend? I have been changing the menu until I couldn't think of it anymore.
			Constipation	8	What should I do to relieve my child's constipation?
			Break the bedtime bottle	2	My 1-year-old child is addicted to bedtime bottle. Anyone know how to break this habit?
			Iron deficiency/anaemia	1	Doctor said my child is suffering from iron deficiency. What food should I add to his/her meal?
Similar situation	17 (5.9%)	Content seeking others experiencing similar problem or concern	-	17	My 9-month-old child refuses to have rice or anything, except milk. Have anyone experienced with this problem?

(Continues)

TABLE 1 (Continued)

Code	Frequency (%) (n = 290)	Description	Subcode	Frequency (n = 290)	Example
Topic: Express emotion					
Anxiety content	51 (17.6%)	Content expressed emotion on stress and anxiety related to child feeding.	Picky/fussy eating	23	My child used to enjoy eating but now refused to eat. I'm stressed.
			Malnutrition	11	Took my child to see the doctor because (s)he didn't eat at all for about 2–3 months, eat just only 3–4 spoons ... I worried about my child might become malnourished.
			Constipation	6	I worried about my child's chronic constipation problem.
			Lack of cooking skills	4	What type of sauce should I use? I don't know how to cook.
			Overfeeding	4	My 7-month-old child has half of the ladle of food at a time, is it too much? (S)he eats three times a day. Thank you.
			Family argument on child feeding	3	My husband doesn't support me to make homemade baby food. He said commercial food is better and safer. He has totally no idea about child feeding.
Topic: Share information and food advertising					
Share information	21 (7.2%)	Content shared general information related to child feeding	Health claims	5	Let's boost our child's brain with affordable Thai fish with high omega-3
			Food safety	5	Here's the tips how to wash vegetable
			Appropriate feeding practices	4	These are six ways to feed your difficult eaters
			Food product reviews	3	Many parents always ask about butter. Which butter brand is best for children? Here is the reviews!
			Food sources of nutrients	3	Here are the lists of vegetable that high in calcium
			Food allergy	1	Here is a link for mommy whose child has milk allergy
Homemade/local food product advertising	2 (0.69%)	Content advertised homemade/local food products	-	2	Dried king mackerel from fisherman. No preservatives

TABLE 2 Descriptive statistics on group activity by initial post categories

Group activity		Initial post categories (topic) (n = 200)			P value ^c
		Seek information (n = 128)	Seek information + express emotion ^b (n = 48)	Share information and advertising (n = 24)	
Comment activity	No. of comment per post, mean (SD)	7.54 (7.43)	20.60 (32.38)	0.38 (1.01)	<0.001
	No. of comment per post, median	6.00	10.00	0.00	
Like reaction activity	No. of like reaction per post, mean (SD)	12.22 (11.79)	41.38 (72.98)	11.42 (15.67)	<0.001
	No. of like reaction per post, median	9.00	15.50	4.50	
Share activity	No. of share per post, mean (SD)	0.08 (0.43)	0.31 (1.34)	2.08 (3.90)	0.173
	No. of share per post, median	0.00	0.00	0.00	
Engagement ^a	Engagement per post, mean (SD)	19.84 (17.23)	62.29 (105.30)	13.88 (19.27)	<0.001
	Engagement per post, median	15.50	25.50	5.50	

^aEngagement = sum of comment, like and share.

^bIncluded two posts that expressed emotion only.

^cANOVA, performed based on log 10 transformation data.

I think it would be better to feed your 7-month-old child two meals per day, in the morning and evening. And provide fruit in the afternoon.

Indicating the child's age seems to be helpful for both support seekers and providers in sharing opinions, experiences and perspectives to address that specific problem. For instance, support providers always ask further information on a child's age when support seekers fail to indicate it in the initial post. This might help them to ensure that their advice would not become harmful.

Avoiding the use of seasoning for under 1-year-old child's meal

It was clear that members of Facebook peer-support groups in children's diets were highly concerned about the use of seasoning in children's meals. For example, when someone asked a question about giving a prepacked meal to their 11-month old child, community members gave direct advice on avoiding salt, sugar and other seasonings:

From your post, your child is not a year old yet; I don't recommend seasoning your child's food. Even of the ready to eat food in a convenience store, definitely with seasoning. May be contaminated with some preservatives as well.

Should avoid adding seasoning to food or offering packed meal (definitely content salt/sugar) for under 1-year-old child.

The increasing concern regarding avoiding sugar, salt and seasoning in complementary food seems to be one of the most important factors to groups when promoting homemade complementary meals. This concept and practice sharing contributed to the practice of making homemade stocks, permitting parents to enhance their homemade complementary food with all natural-based ingredients.

I do not recommend this packaged food because of the high sugar content. Homemade food is much better.

Should add some homemade based soup while cooking for your under 1-year-old child to enhance the flavour. Do not add any other seasoning.

The ideals of complementary food that counter prevailing cultural norms may cause arguments about child feeding practices in some families. By joining a support group, mothers can learn about what, how and why other members feed their child. Mothers who exchange content with peers may value and adopt new ideas about child feeding practices. This contributes to different attitudes and knowledge gaps between group members and other family members. For example, a mother disclosed that her husband was less likely to value homemade complementary food and encouraged her to feed her child with commercial baby foods. This initial post gained the highest number in both comments and reactions in the dataset. Group members clearly invigorated this thread by providing supportive comments and sharing the same situation.

Commercial baby foods = instant noodle. Homemade complementary food is much healthier. Next time try to make instant noodles for your husband every single day. He will clearly understand how bad it is.

We are in the same situation, but I fight with my parents. They said they fed me with commercial baby foods before and didn't find any harmful.

While sugar or salt should not be added to food for children under 1 year, in contrast, this constraint is no longer as applied when children grow up. It is considered normal for food to be seasoned when children are more than 1 year:

More than 1-year-old children can have family food with mild seasoning.

Your child is already two-year-old, s(he) can has family food with mild seasoning.

The relaxation of the constraints on food seasoning, such as sugar, salt and soy sauce, after the child reached a year led to parents' attention to food products. There were some ideas and information exchanged on food products, especially cooking sauce, responses to support seekers' previous comments:

I am sharing with you a review of seasoning sauce. Please find the attached link.

Moreover, there appears to be increased interest in food products for travel. For example, commercial baby foods were sometimes recommended by online peers when someone asked about convenience food for babies when travelling. Some members also endorsed this recommendation which seem to go against a plethora of community views on commercial baby foods:

When my child was young, s(he) enjoyed having this commercial baby food. I used to buy it when traveling.

Even though I normally feed my child with homemade meals, I always buy this commercial baby food when traveling or going outside.

Allergy awareness when introducing baby to solid food

Across the groups, community members agreed about the importance of allergy awareness when introducing new food to children. Members, especially those with a family history of food allergy, were advised to pay more attention to making a plan for new food introduction to their children:

In the case of your family history has a food allergy, you might have to test vegetable or meat one at a

time, and then wait for 3-4 days before introducing another food.

When the family history of food allergy is not present, you can start introducing a variety of food to your child. If you are not sure, start from vegetable testing first.

3.3.2 | Managing child feeding problems

Handling picky/fussy eaters

Many members expressed tension related to a child's food fussiness and asked the community for peer support. When someone requested advice on handling picky eaters, community members provided a clear pattern of suggestions, and some members also shared their personal experiences applying these practices. They were likely to include limiting milk before a meal, serving a variety of food, make mealtime fun, letting children feed themselves and structuring mealtime environment:

Skip milk for 1-2 hours before the meal. Or change to the noodle menu. Encourage your child self-feeding. Don't worry about the amount of eaten food.

Provide finger food to your child that (s)he can enjoy having it. (S)he might play with food at first, but after that, (s)he will know that it's time to eat and then start eating.

I let my child go hungry and set a time limit for his/her eating.

Handling constipation problems

Introducing complementary food to children might result in constipation problems. To reduce anxiety and concern, some members initiated thread seeking for solutions. The comment threads provided a clear view that constipation in children can be handled by offering more water and fruits, especially dragon fruit and ripe papaya:

Offer your baby 2-3 ounces of water per day and add fruit in the afternoon.

Have you tried offering your child ripe papaya or dragon fruit?

4 | DISCUSSION

Facebook groups devoted to facilitating peer-exchanging on diets for children have become an online community for parents to seek informational and emotional support. Nearly 90% of initial threads of this study requested for these two types of support. As a

fundamental human interaction-communication, support seekers can initiate threads; thus, informational support and emotional support from virtual friends can be transmitted through online communities (Liang & Scammon, 2011). Advice, suggestions or useful information from online peers could help solve a particular problem or reinforce an existing decision. Observing others' discussion could also facilitate parents to learn about what other parents do or think about child feeding practices (Doub et al., 2016). Our results revealed that emotional expression-related posts generated a lot of community interaction leading us to argue that social groups are important providers of emotional nourishment. As women are more likely to seek emotional support (Sullivan, 2003), care and empathy among group members are key factors promoting online communities. Share similarity is another advantage of online support groups. Previous literature argues that online platforms have become a network in seeking and providing informational support for patients and the public who share the same concerns and life experiences (Greene, Choudhry, Kilabuk, & Shrank, 2011; Liang & Scammon, 2011). The sense of similarity may facilitate both informational and emotional support to reduce uncertainty and stress for those dealing with similar issues (Wright et al., 2011). A recent social network study supported this notion that there is a potential relationship within the social network to promote, support and enhancing knowledge around breastfeeding on Twitter (Moukarzel, Rehm, & Daly, 2020).

The transition from breastfeeding to the introduction of complementary food can be challenging, encouraging parents to seek nutrition knowledge and social support. Our findings from the content analysis align with a previous study which suggested that parents need more knowledge and skills in age-appropriate meal preparation for their young child (Heller, Chiero, Puglisi, & Mobley, 2019). The shift beyond a typical network of influence, such as their kin, to a virtual community could be a primary factor in the adoption of non-traditional foods into complementary feeding practices. This might raise uncertainty among parents when dealing with unfamiliar foods or even with the traditional foods used in complementary feeding. In turn, support and validation from online peers' experiences seems to reduce the uncertainty.

Making homemade baby food and avoiding processed food, sugar and salt, especially for children under 1-year-old, is a focus in social groups to encourage what is perceived as healthy feeding practices among online members. This confirms previous findings that parents are concerned about processed foods and are interested in learning how to make homemade foods for their young child (Heller et al., 2019). As many members seek age-appropriate recipes, online groups could be used to promote healthier baby foods to parents by addressing key issues, such as dietary diversity and iron deficiency. A study in Northern Thailand reported that an inadequate variety in complementary foods was a typical problem (Roesler et al., 2018). Moreover, high prevalence of anaemia was found in young Thai children (Rojroongwasinkul et al., 2013). Further study is needed to investigate the healthiness of shared recipes disseminated through online communities.

The picky eater is a top anxiety-related subject among online members. Our findings support previous literature that food fussiness is a common parenting experience which creates tensions and anxiety (Daniels, 2019). Many parents are concerned with learning strategies to increase their child's food consumption (Heller et al., 2019). As child feeding involves complex bidirectional interactions, parental feeding can be both influenced by and respond to child eating behaviour (Daniels, 2019). This interaction could lead to inappropriate feeding behaviour. Our findings suggested that online peers are dealing with this issue by creating a supportive environment and limiting the amount of nonprimary food intake. However, assisting parents to understand normal child eating behaviour would reduce anxiety related to difficulty feeding and prevent coercive feeding practices (Daniels, 2019). Surprisingly, despite the increasing number of overweight children in Thailand (National Statistical Office & UNICEF, 2016), our study found that members are less likely to be concerned about overfeeding and child overweight.

Communication on social media groups is not only good at broadcasting information but also at cultivating a learning environment. Much previous research has found that nutrition education alone is not enough to improve young child feeding practices (Dewey & Adu-Afarwuah, 2008; Imdad, Yakoob, & Bhutta, 2011). Support from a wider social network has been found to have a positive effect on feeding knowledge (Fiorella et al., 2019). Such social media is participatory, socially engaging and reciprocal (Adewuyi & Adefemi, 2016; Moorhead et al., 2013). These unique characteristics could be combined with social and behaviour change communication (SBCC) theory for encouraging healthier feeding practice. SBCC has been noted to be effective in encouraging healthy behaviour, including in the nutrition area, through fundamental human interaction-communication (Briscoe & Aboud, 2012; Ruel et al., 2008). When the majority of members share similar beliefs and practices, joining such groups may influence parents to learn and adopt new knowledge and practices (Doubet et al., 2016; Nguyen et al., 2019). As child feeding practice is strongly embedded in culture and tradition (Daniels, 2019), a shift in interest from traditional practices create counterculture gaps. Our study revealed that joining online communities could widen attitude and knowledge gaps among family members. Introducing non-traditional food and adopting unfamiliar feeding practices may be a cause of argument in some families. The different attitude and knowledge gaps between mothers and other family members were also found in another study (Kittisakmontri et al., 2019). Narrowing these gaps is needed to create a supportive environment.

Findings from this study suggested that online communities bring a new dimension to parents as a medium to exchange social support. Even living in a world of information superabundance, parents need a broader network to provide tailored-informational and emotional support. Social support can be understood as an important function of social relationships. According to social network theory, online communities may encourage a virtual relationship between members. This relationship with online peers who share similar interests and concerns means networks may become a source of informational and emotional support. This study's results reveal that a strategy for

information about child feeding should involve social networks and support to supplement the feeding guideline or face-to-face consultation. Moreover, this online community may give rise to other social functions, including social influence. Social media functions can contribute to social norms that are established and disseminated within the online community. The frequency of behaviour-related content among online groups as descriptive social norms is observable and can influence human behaviour through the TNSB. Therefore, our findings on child feeding ideals and practices revealed the health norms across modern Thai family. These specific findings on what is perceived as a healthy feeding practice by individuals help health professionals determine the gaps in practice and define the policy's scope.

4.1 | Strengths and limitations

This study was limited to investigating Facebook groups devoted to child feeding practices in Thailand. The results may not be generalized to other online community platforms. Moreover, this study is based on a dataset that comes from five Facebook groups. The findings could be different in other Facebook peer-support groups in children's diets. Despite this limitation, to our knowledge, this is the first study to investigate the discourse in social media groups devoted to child feeding practices in developing countries. To develop a full understanding of current knowledge, practices and concerns, observing peer-exchanging discourse and community interaction is an appropriate way to begin. The initial evidence presented in this paper will help public health professionals to understand existing circumstances.

5 | CONCLUSIONS

Online peer discussion platforms like Facebook groups have enabled informational and emotional support through bidirectional communication. This study provides important insights into parental feeding concerns, an area of interest and child feeding ideals transmitted through virtual communities in the Thai context. With the advantage of interactive engagement, healthcare professionals could collaborate with these online support groups to better harness this supportive environment. Because of the potential influence on health and behaviour, future research should address questions of the healthiness of the shared baby food recipes and how user-generated content influences parental beliefs, perceptions and decision making.

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CONFLICTS OF INTEREST

The authors declare that they have no conflicts of interest.

CONTRIBUTIONS

AS initially conceived the original study design, and CB, MK, VSY and JLD helped refine the study design. AS collected and analysed data. CB, MK, VSY and JLD reviewed and contributed feedback and critical comments on data collection and analysis. AS wrote the first draft of the manuscript. All authors read, revised and approved the final manuscript.

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REFERENCES

- Adewuyi, E. O., & Adefemi, K. (2016). Behavior change communication using social media: A review. *International Journal of Communication and Health, 9*, 109–116.
- Asiodu, I. V., Waters, C. M., Dailey, D. E., Lee, K. A., & Lyndon, A. (2015). Breastfeeding and use of social media among first-time African American mothers. *Journal of Obstetric, Gynecologic & Neonatal Nursing, 44*(2), 268–278. <https://doi.org/10.1111/1552-6909.12552>
- Bartholomew, M. K., Schoppe-Sullivan, S. J., Glassman, M., Kamp Dush, C. M., & Sullivan, J. M. (2012). New parents' Facebook use at the transition to parenthood. *Family Relations, 61*(3), 455–469. <https://doi.org/10.1111/j.1741-3729.2012.00708.x>
- Belsky, J., & Rovine, M. (1984). Social-network contact, family support, and the transition to parenthood. *Journal of Marriage and the Family, 46*, 455–462. <https://doi.org/10.2307/352477>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Briscoe, C., & Aboud, F. (2012). Behaviour change communication targeting four health behaviours in developing countries: A review of change techniques. *Social Science & Medicine, 75*(4), 612–621. <https://doi.org/10.1016/j.socscimed.2012.03.016>
- Daniels, L. A. (2019). Feeding practices and parenting: A pathway to child health and family happiness. *Annals of Nutrition and Metabolism, 74*(2), 29–42. <https://doi.org/10.1159/000499145>
- Dewey, K. G., & Adu-Afarwuah, S. (2008). Systematic review of the efficacy and effectiveness of complementary feeding interventions in developing countries. *Maternal & Child Nutrition, 4*, 24–85. <https://doi.org/10.1111/j.1740-8709.2007.00124.x>
- Doub, A. E., Small, M., & Birch, L. L. (2016). A call for research exploring social media influences on mothers' child feeding practices and childhood obesity risk. *Appetite, 99*, 298–305. <https://doi.org/10.1016/j.appet.2016.01.003>
- Dumas, A. A., Lemieux, S., Lapointe, A., Provencher, V., Robitaille, J., & Desroches, S. (2020). Long-term effects of a healthy eating blog in mothers and children. *Maternal & Child Nutrition, 16*, e12981. <https://doi.org/10.1111/mcn.12981>
- Fiorella, K. J., Gavenus, E. R., Milner, E. M., Moore, M., Wilson-Anumudu, F., Adhiambo, F., ... Fernald, L. C. (2019). Evaluation of a social network intervention on child feeding practices and caregiver knowledge. *Maternal & Child Nutrition, 15*(3), e12782. <https://doi.org/10.1111/mcn.12782>

- Foterek, K., Buyken, A. E., Bolzenius, K., Hilbig, A., Nöthlings, U., & Alexy, U. (2016). Commercial complementary food consumption is prospectively associated with added sugar intake in childhood. *British Journal of Nutrition*, 115(11), 2067–2074. <https://doi.org/10.1017/S0007114516001367>
- Greene, J. A., Choudhry, N. K., Kilabuk, E., & Shrank, W. H. (2011). Online social networking by patients with diabetes: A qualitative evaluation of communication with Facebook. *Journal of General Internal Medicine*, 26(3), 287–292. <https://doi.org/10.1007/s11606-010-1526-3>
- Heller, R. L., Chiero, J. D., Puglisi, M., & Mobley, A. R. (2019). Feeding infants and toddlers: A qualitative study to determine parental education needs. *Childhood Obesity*, 15(7), 443–450. <https://doi.org/10.1089/chi.2019.0024>
- Hsieh, H. F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research*, 15(9), 1277–1288. <https://doi.org/10.1177/1049732305276687>
- Imdad, A., Yakoob, M. Y., & Bhutta, Z. A. (2011). Impact of maternal education about complementary feeding and provision of complementary foods on child growth in developing countries. *BMC Public Health*, 11(3), S25. <https://doi.org/10.1186/1471-2458-11-S3-S25>
- Joshi, S., Mongkolkeha, A., Chompikul, J., Mo-suwan, L., Chittchang, U., & Choprapawon, C. (2012). Determining of complementary food practice and stunted thai children aged 24 months. *Journal of Health Research*, 26(4), 179–186.
- Kemp, S. (2020, February 18). Digital 2020: Thailand. Retrieved from <https://datareportal.com/reports/digital-2020-thailand>
- Kittisakmontri, K., Fewtrell, M., Roekworachai, K., Phanpong, C., & Lanigan, J. (2019). Complementary feeding: Attitudes, knowledge and practices of urban families in northern Thailand. *Nutrition and Dietetics*, 76(1), 57–66. <https://doi.org/10.1111/1747-0080.12474>
- Liang, B., & Scammon, D. L. (2011). E-Word-of-Mouth on health social networking sites: An opportunity for tailored health communication. *Journal of Consumer Behaviour*, 10(6), 322–331. <https://doi.org/10.1002/cb.378>
- Moorhead, S. A., Hazlett, D. E., Harrison, L., Carroll, J. K., Irwin, A., & Hoving, C. (2013). A new dimension of health care: Systematic review of the uses, benefits, and limitations of social media for health communication. *Journal of Medical Internet Research*, 15(4), e85. <https://doi.org/10.2196/jmir.1933>
- Moukartzel, S., Rehm, M., & Daly, A. J. (2020). Breastfeeding promotion on Twitter: A social network and content analysis approach. *Maternal & Child Nutrition*, 16, e13053. <https://doi.org/10.1111/mcn.13053>
- National Statistical Office and United Nations Children's Fund. (2016). Thailand Multiple Indicator Cluster Survey 2015–2016 (Final Report). National Statistical Office and United Nations Children's Fund. Retrieved from https://www.unicef.org/thailand/sites/unicef.org.thailand/files/2018-06/Thailand_MICS_Full_Report_EN_0.pdf
- Nguyen, P. H., Frongillo, E. A., Kim, S. S., Zongrone, A. A., Jilani, A., Tran, L. M., ... Menon, P. (2019). Information diffusion and social norms are associated with infant and young child feeding practices in Bangladesh. *The Journal of Nutrition*, 149(11), 2034–2045. <https://doi.org/10.1093/jn/nxz167>
- Nolan, S., Hendricks, J., Ferguson, S., & Towell, A. (2017). Social networking site (SNS) use by adolescent mothers: Can social support and social capital be enhanced by online social networks?—A structured review of the literature. *Midwifery*, 48, 24–31. <https://doi.org/10.1016/j.midw.2017.03.002>
- Peterson, E. B., Gaysynsky, A., Chou, W.-Y. S., & Rising, C. (2019). The role and impact of health literacy on peer-to-peer health communication. *Information Services & Use*, 39(1–2), 37–49. <https://doi.org/10.3233/ISU-180039>
- Regan, S., & Brown, A. (2019). Experiences of online breastfeeding support: Support and reassurance versus judgement and misinformation. *Maternal & Child Nutrition*, 15(4), e12874. <https://doi.org/10.1111/mcn.12874>
- Roesler, A., Smithers, L. G., Winichagoon, P., Wangpakattananawong, P., & Moore, V. (2018). Local perspectives and context in relation to feeding practices of children under 2 years in the mountain villages of northern Thailand. *Public Health Nutrition*, 21(16), 2989–2997. <https://doi.org/10.1017/S1368980018001957>
- Rojroongwasinkul, N., Kijboonchoo, K., Wimonpeerapattana, W., Purttiponthanee, S., Yamborisut, U., Boonpradern, A., ... Khouw, I. (2013). SEANUTS: The nutritional status and dietary intakes of 0.5–12-year-old Thai children. *British Journal of Nutrition*, 110(S3), S36–S44. <https://doi.org/10.1017/S0007114513002110>
- Ruel, M. T., Menon, P., Habicht, J.-P., Loechl, C., Bergeron, G., Pelto, G., ... Hankebo, B. (2008). Age-based preventive targeting of food assistance and behaviour change and communication for reduction of childhood undernutrition in Haiti: A cluster randomised trial. *The Lancet*, 371(9612), 588–595. [https://doi.org/10.1016/S0140-6736\(08\)60271-8](https://doi.org/10.1016/S0140-6736(08)60271-8)
- Skelton, K., Evans, R., & LaChenaye, J. (2020). Hidden communities of practice in social media groups: Mixed methods study. *JMIR Pediatrics and Parenting*, 3(1), e14355. <https://doi.org/10.2196/14355>
- Strazzullo, P., Campanozzi, A., & Avallone, S. (2012). Does salt intake in the first two years of life affect the development of cardiovascular disorders in adulthood? *Nutrition, Metabolism, and Cardiovascular Diseases*, 22(10), 787–792. <https://doi.org/10.1016/j.numecd.2012.04.003>
- Sullivan, C. F. (2003). Gendered cybersupport: A thematic analysis of two online cancer support groups. *Journal of Health Psychology*, 8(1), 83–104. <https://doi.org/10.1177/1359105303008001446>
- Winichagoon, P. (2013). Thailand nutrition in transition: Situation and challenges of maternal and child nutrition. *Asia Pacific Journal of Clinical Nutrition*, 22(1), 6–15. <https://doi.org/10.6133/apjcn.2013.22.1.17>
- Wright, K. B., Johnson, A. J., Bernard, D. R., & Averbeck, J. (2011). Promises and pitfalls for individuals coping with health concerns. In T. L. Thompson, R. Parrott, & J. F. Nussbaum (Eds.), *The Routledge handbook of health communication* (2nd ed.) (pp. 349–362). New York: Routledge.

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