Depression in patients in general practice – and response

I have concerns about the article by Arroll et al (NZ Med J 2002; 115: 176-9). The title of this article is misleading. It suggests the study had the goal of looking at the prevalence of depression in an Auckland general practice. It turned out the article had different goals. The authors' prime goal was to study the abilities of general practitioners (GPs) to diagnose depression as compared to the gold standard of the Beck's Diagnostic Inventory scale. The second goal was to measure the prevalence of depression in Maori and non-Maori patient groups. The final goal was to compare the prescribing of antidepressants in these two groups of patients.

The authors addressed the measurement biases inherent in the use of BDI. However, they did not address the selection bias inherent in their method. The GPs obtained consent from the patient before the gold standard (the BDI) was administered to patients. (There was no information provided on the 29% of patients in whom consent was not obtained - so an estimate of the effect of the bias could not be made).

Furthermore, the GP could signal to the interviewer that a patient was considered to be suicidal. This means the interviewers administering the BDI questionnaire were not blind to the diagnostic performance of the GPs.

The threshold used in the study was >16 for BDI, which represented borderline clinical depression. Using this cut off, there were 17 patients in whom the GPs missed depression and the BDI was positive. There were 20 patients in whom the GPs diagnosed depression and the BDI was negative. There was agreement with the BDI for 18 patients who were depressed and 198 patients who were not depressed. One needs to have a firm belief in the reliability of BDI as a 'gold standard' measure of patient suffering to claim that GPs have missed a worrying amount of depression.

Furthermore, given that this was a study of diagnostic abilities of five GPs, there was no information about the individual GPs or their individual diagnostic performance.

Table 2 reports comparisons between Maori and non-Maori patients. Although this is an important comparison, the figures rely on a cut-off of >10 for BDI which was not the level at which the GP performance was measured. If the original cut-off level of >16 was used, then no difference was found between the two groups in the use of anti-depressants medication. The small numbers in this study and the above mentioned biases make one wary of believing the conclusions about Maori and non-Maori differences.

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Response

We are puzzled with Dr Kljakovic's concern over the title. His concern was that it suggested that the study had the goal of looking at the prevalence of depression in an Auckland general practice. While this was one of the aims of the study there is nothing in the title to suggest that. The main aim was to look at the "rate of detected
and undetected depression in general practice patients.” In the paragraph previous to
the one above we made the point that the prevalence of depression in New Zealand
general practice has not been clearly established. By measuring detected and
undetected depression we obtained an estimate of the prevalence. The secondary aim
(not stated) was to look at the rates of depression among Maori. When we found no
difference we decided to look at the usage of antidepressants between Maori and non-
Maori. As this was not a primary outcome we suggested that further work be done on
this. Given that there are disparities in use of health care, under-use seems likely.\textsuperscript{1,2}

Informed consent had to be obtained before administering the test as directed by the
ethics committee. We asked that patients if they would consent to completing a
questionnaire on their health and mood to conceal the fact that it was a study
focussing on depression.

Our research assistant was instructed not to look at the form from the GP (thereby
remaining blind to the diagnostic performance of the GP) stating that the GP thought
the patient was depressed and that the patient was safe or unsafe. This piece of
information was needed to ensure that a potentially suicidal patient was screened and
not treated. The Beck Depression Inventory (BDI) is self administered and hence we
feel confident that any bias due to unblinding would be minimal.

The number of patients who declined was 19\% not 29\%. We asked the GPs to make a
note of those who declined but this was rarely done. It is difficult to ask GPs to
perform extra tasks in the research situation as Dr Kljakovic will be well aware.

We agree that the BDI is not considered a gold standard for depression. In retrospect
we would have used at least one other tool but we thought there would be patient
resistance to this. In our current study we are using three instruments. The BDI has
advantages in that it is self administered and has been validated against other gold
standards. We presented our data to show the multiple cut points so that readers could
make their own comparison. We know from other work that the cases of depression
missed by GPs tend to be the less serious cases yet there may be advantages in
knowing the mental state of a patient other than providing therapy. As only 35 cases
of depression were found with the cut point at seventeen it was meaningless to report
the sensitivity and specificity of the six doctors individually as the confidence
intervals are enormous.

We have reassessed the cut point for antidepressant use and with a cut point of 17
there were nine Maori patients and only one was on antidepressants while in the non-
Maori there were 34 and 17 of them were on or had been on antidepressants. This was
significant p=0.03 (Fishers exact test). Thus we are still concerned about this matter
and intend to pursue it.

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1. Tukuitonga CF, Bindman AB. Ethnic and gender differences in the use of coronary artery