Identifying psychological distress in New Zealand primary care:

The General Health Questionnaire-12 (GHQ-12) as a screening instrument

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ABSTRACT

The usefulness of the General Health Questionnaire-12 (GHQ-12) in the identification of psychological distress among patients in the New Zealand general practice setting was investigated. Participants completed the GHQ-12 and a demographic information form while waiting for a GP appointment. Doctors were asked to provide information on whether they considered each participant to be psychologically distressed. There was some overlap of clients identified as psychologically distressed by the GHQ-12 and GPs, but the majority were identified by the GHQ-12 alone. The results of this study suggest the GHQ-12 could contribute to the identification of psychological distress for patients who are visiting their GP solely for a medical reason, are not well known to their GP, or who visit a GP frequently. The high response rate indicates the process is acceptable to many patient groups.

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Introduction

Detecting psychological problems in general practice is recognised as a difficult task.[1,2] The number of people who present to their general practitioner (GP) with psychological problems is substantially lower than the population prevalence of psychological disorder would suggest.[3,4,5] The Mental Health and General Practice Investigation[4] (MaGPIe Research Group) showed that more than half of their sample of general practice patients had experienced some level of psychological problem in the past year, and a third had had a diagnosable mental disorder. Less than 6% of these consultations were primarily for a psychological reason. In another recent survey, 21% of a New Zealand sample had experienced a diagnosable psychological disorder in the last 12 months, with 22% of this group at a high level of severity. Less than half of the people in this study sought help from a health professional.[6]

Several factors pose challenges for the detection of psychological disorders in general practice. Research has found that without direct requests from patients, GPs have few cues for identifying mental health concerns.[7] Additional barriers include time constraints, patient reluctance to discuss psychological symptoms[3,8] as well as the severity of a patient's problem.[9] The level of familiarity between GP and patient has been found to assist in the identification of psychological distress.[10]

In theory, the use of screening instruments would indicate which patients might be experiencing psychological difficulties. The General Health Questionnaire (GHQ)[11] is one of many such tools available. The items are not diagnostic, as psychiatric problems can be specified by other means. Rather the focus is on more general aspects of functioning that can be affected by psychological difficulties (i.e. impaired daily living, new and distressing symp-

toms). There have been a large number of studies regarding GHQ-12's validity and reliability in several settings.[12,13] Advantages of the GHQ-12 are its length – only 12 items – easy administration and quick scoring. While the measure was originally developed in the United Kingdom, it is now used worldwide in a variety of languages. The GHQ-12 was used in the MaGPIe studies, which suggested it is an effective tool to identify psychological symptoms in a New Zealand population.[5,14]

The current study focused on whether the GHQ-12 has the potential to assist GPs in identifying mental health concerns. It was part of a larger investigation evaluating brief mental health interventions in the primary care setting.

Method

Sampling procedure

Two Waikato medical centres participated in the data collection. These sites were chosen as they had more GPs than average for the area, increasing the potential number of participants. They were both interim funded and offered similar primary care services. One was located in Hamilton city, and the other in a rural township. Patients aged 18-years or over who were visiting their GP on the survey days were approached and asked to take part while waiting for their appointment. As this was a descriptive study, no other sampling criteria were applied.

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Measures

Patient forms

Participants completed the GHQ-12 and an information sheet noting the reason for their appointment, if it was with their usual doctor, and demographic information. Answers for open-ended questions were sorted into categories by two independent raters, and any disagreements settled by a third rater. Reasons for appointment were categorised as medical, psychological, or unspecified/other. These categories are comparable with those identified by GPs in the MaGPIe study.[4] Psychological reasons were further classified based on the diagnostic categories most often identified in primary care settings (i.e. low mood/withdrawal, stress/anxiety/worry, or both).

GHQ-12

Responses to each item of the GHQ-12 were scored using the standard GHQ scoring protocol which allocates a value of 0 (no concern indicated) or 1 (concern indicated). These were summed to produce a GHQ-12 total score, which was compared with a threshold cut-off score for 'caseness'. This is the likelihood that a 'diagnosis' would be made if the respondent were to undergo a full psychiatric interview.

GP forms

GPs filled in a separate form if they considered their patient to be presenting with some form of psychological distress. 'Distress' was not specifically defined, but left open to the GPs to determine as per their usual practice. They were asked to describe the distress in a brief statement, rather than using diagnostic categories that would have excluded patients with more general or less severe difficulties. GPs rated how concerning the difficulties were, for both the patient and themselves, using a three-point scale. Whether a referral to a support service was made and how well the GP knew the patient was also noted. GPs' descriptions of their patients' psychological distress were classified according to the type of distress (i.e. low mood/withdrawal, stress/anxiety/worry, both, or unspecified), and the context in which it occurred (i.e. family, partner, work, medical event, multiple events or unspecified).

Results

Response rate

A total of 266 survey forms were distributed; of these, 36 (14%) individuals declined to participate. Reasons for declining included having left reading glasses at home, a preference to not fill in forms, and feeling too unwell. Thirty-four forms (15%) were incomplete, including 18 GHQ-12s, and 17 missing GP forms. Only participants with complete data sets were included in this analysis (n=196, 74%). The majority of forms were completed by patients in the time between checking in with the administration staff, and when they were called for their appointment.

Demographic summary

The majority of participants identified as New Zealand European (82%), with 6% identifying as Maori. Females accounted for 61% of the sample. The highest proportion of participants was in the over-60 age range (27%) while the lowest representation was in the under-20 age range (5%). There were no substantial differences in ethnicity, gender, usual GP or number of visits to the GP between the group that completed all components of the survey and those that did not. However, a higher number of participants in the over-60-years group did not complete the GHQ-12 after consenting to take part in the study.

Identification of psychological distress

GHQ-12 identification of psychological distress

The mean GHQ-12 score for all participants who completed the questionnaire was 2.5 (Median=1, SD=3.4, Range 0-12). Using a scoring method with a threshold of 2/3 for 'caseness', the GHQ indicated that 33% (n=64) of patients might be experiencing some form of psychological distress.

GPs' identification of psychological distress

GPs indicated that 18% (n=35) of their patients were experiencing some form of psychological distress. Most of these participants were well known or moderately well known to their GP (77%). GPs reported 29% (n=10) had low mood/withdrawal, 46% (n=16) had anxiety, 17% (n=6) had symptoms of both, and 8% (n=3) of participants' problems were unspecified.

Identification of psychological distress by GPs, the GHQ-12, or both

Of the 64 participants who scored above the threshold on the GHQ-12, 20 (31%) were also identified by their GP as being psychologically distressed. Forty-four participants with 'caseness' scores on the GHQ-12 were not identified as psychologically distressed by their GP, while 15 participants (40% of completed GP forms) were identified as psychologically distressed by their GP, but scored below the threshold on the GHQ-12.

Possible influences on the identification of psychological distress

Consideration of the possible factors influencing identification of psychological distress is outlined below by comparing the groups of participants who were noted as being psychologically distressed by their GP only (and not by the GHQ-12), by the GHQ-12 only (and not by their GP), and for whom GP and GHQ-12 assessments of psychological distress concurred.

Reason for appointment

The GHQ-12 identified more psychological distress in patients presenting with solely medical complaints than GPs (67% vs 14%). This trend was also seen in patients presenting with an unspecified or other reason. In comparison, GPs and the GHQ-12 had a high rate of concurrence in identifying distress when a psychological reason for the appointment was given (both at 85%).

Familiarity

The majority of participants (75%) were seeing their usual doctor. Eighty per cent of those identified by their GPs were usual patients. GPs identified psychological distress at a higher rate for their usual patients, whereas the GHQ-12 often provided the only means of identification of distress for participants who were not visiting their usual GP. The GHQ-12 identified 42% of patients not visiting their usual GP as psychologically distressed, whereas GPs identified 15% of this group.

As a more general screening tool, the GHQ-12 may detect a broader range of psychological problems, including those that would not meet criteria for psychiatric diagnosis

Frequency of GP visits

Many participants had visited a GP two (30%) or three or more (34%) times in the last six months. In each frequency category the proportion of patients who were identified as psychologically distressed was similar. However, the method that they were identified by was different. The GHQ-12 alone found more distress in the three visits or more group. Of the 29 people noted as psychologically distressed in this category, 22 (76%) were identified by the GHQ-12 alone, whereas only one (3%) was identified by GP alone, and six (20%) were identified by both.

Referrals

GPs referred 14% of the participants (n=5) assessed as being psychologically distressed to another service. Two patients were referred to a medical specialist, and three were referred to counselling or psychological services. None of the patients who reported seeing their GP for psychological concerns specifically indicated that they were seeking a referral to mental health services.

Influences on referral

Due to the low numbers of referrals made, there was no clear relationship between this and other variables in the study, including GHQ-12 score. For all of the people who were referred on, the GP had rated the patients concerns in the moderate to significant range (one was unspecified). However, there were several other patients with the same level of distress that were not referred on. All of the counselling referrals were made for patients with low mood or depressive symptoms, and both patients referred to a medical specialist were experiencing anxiety, stress, or worry. These numbers are very small, but suggest that the type of distress experienced was related to which service a participant was referred to.

Conclusion

There was some overlap of clients identified as psychologically distressed by the GHQ-12 and GPs, but the majority were identified by the GHQ-12 alone. This pattern was also observed in the MaGPIe[4] study, although the proportion of participants identified as psychologically distressed by their GP in this study was lower than the MaGPIe study. The mean GHQ-12 score in this sample was also slightly lower than participants' scores in the MaGPIe study (2.5 and 2.9, respectively). Overall, these findings support the proposal that a screening tool such as the GHQ-12 could improve the detection rates of psychological problems in primary care patients, and thus increase the likelihood of them accessing appropriate treatment. As a more general screening tool, the GHQ-12 may detect a broader range of psychological problems, including those that would not meet criteria for psychiatric diagnosis. Given the growing body of evidence that brief mental health interventions in the primary care setting are useful

in treating mild to moderate levels of psychological distress,[15,16] identification of this group is important. Of note was the low number of intervention referrals made. GPs have identified barriers they face when referring to mental health services.[1] However, patient-based factors also need to be considered.[8,17] For example, one New Zealand study found the majority of patients screened as having possible anxious and/or depressive concerns did not request assistance from their GP.[18]

The results from this study support previous findings that familiarity increases GPs' identification of psychological concerns.[10,17] Patients visiting their usual GP might be more comfortable discussing psychological concerns, and/or GPs' familiarity with patients might assist them in gathering and assessing information about psychological concerns. GPs did identify psychological distress in patients they reported not knowing very well at all, albeit at a lower rate than the GHQ-12. A point for consideration is the lower rates of GP identification of distress observed for people with whom GPs could also be considered familiar, those participants who attended a GP more frequently. There could be many reasons why the distress in this group of patients goes undetected. For example, frequent GP visits may suggest a chronic health problem that becomes the focus of each visit. Undetected psychological distress may also lead to increased help seeking, and hence more frequent visits. An association between frequent GP appointments and chronic depression was observed by Menchetti et al.[19] particularly for older people. When there is a persistent high frequency of visits, administering a GHQ-12 might provide a way of screening for psychological aspects of patients' difficulties.

The higher rate of incomplete GHQ-12 forms amongst people aged over 60 would suggest that patients in this age group may need additional assistance

A higher proportion of patients with a medical or unspecified/other reason for their appointment were identified as psychologically distressed by the GHQ-12 alone. The identification of psychological distress in this group might be complicated by the presentation of such distress as somatic, as shown in a study of GPs' recognition of psychological symptoms.[20] Alternatively, a general medical condition might be associated with psychological distress,[21,22] where the medical complaint takes precedence within a GP consultation. Both GPs and the GHQ-12 identified psychological distress in those participants with a clearly stated psychological reason for their visit, although very few patients' GP consultations are primarily motivated by mental health concerns.[5] The GHQ-12 might be able to indicate 'caseness' from the patients' perspective for people with medical or unspecified/other reasons for their appointment. Using the GHQ-12 in cases where comorbid psychological concerns are possible might provide a way of ensuring this aspect of a patient's difficulties is noted during a GP consultation.

Despite its potential, the practicalities of administering the GHQ-12 is a key factor in whether or not it is feasible to use in a typical GP practice setting

Despite its potential, the practicalities of administering the GHQ-12 is a key factor in whether or not it is feasible to use in a typical GP practice setting. Patient opinion of the GHQ-12 was not directly investigated here, but it can be inferred from the high response rate that they found the format acceptable. Most completed it independently in a matter of minutes, indicating it could be given to patients to do in the waiting room prior to their consultation. Informal observations also indicated that some people needed assistance, for example those with reading difficulties. The higher rate of incomplete GHQ-12 forms amongst people aged over 60 would suggest that patients in this age group may need additional assistance. Using practice nurse or GP time to complete the GHQ-12 with a patient may be beneficial in cases where there is a high probability of psychological concerns, and/or a high risk of psychological concerns remaining undetected, such as those described above. GPs routinely order blood tests in order to clarify/confirm a physical health diagnosis, and a GHQ-12 could be utilised in a similar way.

The age range, gender, and ethnicity proportions of this sample are not representative of the Waikato region, and so the results cannot be generalised without caution. This study did not include a wide range of practices, and so further investigation could compare this context of large practices with smaller teams.

Overall, the findings of this study suggest the GHQ-12 has potential for screening for psychological distress in GP patients, particularly so for those patients from the groups outlined above. Given the challenges involved in detecting psychological distress in general practice, the GHQ-12 may provide a valuable contribution to primary care patients by indicating which patients might be in need of psychological services.

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Competing interests

None declared.

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Patients' expectations and medication

'This study found that patients' expectations of their medications are grounded in the reality of their experiences, beliefs, and health care or social situations rather than in idealistic ideas or beliefs. A preliminary model demonstrated that patients' expectations were manifested through activities that helped them confirm or modify their belief that their medications were working as hoped. Such activities included testing the effectiveness of medications by independently discontinuing them, changing doses, or skipping medications, and by gathering information about medications from health care system or public sources.'

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