

**Psychological problems in New Zealand primary health care:  
A report on the pilot phase of the Mental Health and General Practice Investigation  
(MaGPIe)**

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**Abstract**

**Objective.** A pilot study was carried out in two regions in order to investigate prevalence of psychological problems in primary care in New Zealand.

**Method.** General Practitioners within two geographic regions were randomly selected. All adult attenders at their practice on selected days were administered a short questionnaire, the GHQ-12, which assesses the presence of psychological symptoms. The General Practitioner (GP) recorded the reasons for each consultation, and was interviewed at the end of each day about selected patients to determine their opinion about the type of psychological problems experienced.

**Results.** About three-quarters of selected GPs (76%) agreed to participate. Ninety-six percent of patients attending their GP agreed to complete the GHQ. Scores from 385 completed GHQ screening questionnaires suggested that 23.4% of GP patients had significant psychological symptoms. When GPs were asked about the main reason for consultation, they identified only 5.7% of current consultations as being for psychological reasons. However in contrast, the GPs thought that 20.6% of patients described having some symptoms which were either mildly, moderately or completely psychological in the current consultation, and recognised that 17.4% of their patients had a mild, moderate or severe case of psychological disorder over the past 12 months.

**Conclusion.** GPs identified one in five of their patients as having symptoms which were either mildly, moderately or completely psychological, although psychological factors were the main reason for consultation in only one patient in twenty. Previous reports of very low rates of psychological problems among GP attenders in New Zealand have been thought to indicate major differences in access to health care or prevalence of common mental disorders within primary care services in this country. However, the apparently low rates of

conspicuous mental disorder in New Zealand general practices may be better explained as an artifact of the type of questions asked.

**Keywords:** general practice, psychological problems, recognition

## **Introduction**

Internationally, there is increasing pressure for primary health care to take on greater responsibility for managing mental illness. In New Zealand, in contrast to most other countries providing socialised health care, primary care is run as a private business with costs to patients. This may have an impact both on what sort of problems patients disclose to their GP, and the response of the GP to the patient who does disclose psychological difficulties.

Although a few studies have described the nature of consultations in New Zealand general practice, none have had a primary focus on mental health. These studies have reported low rates of consultation for psychological reasons (3.1%, 4.4% and 7.6% respectively).<sup>1-3</sup> In contrast, extensive research into psychological problems in primary care in other countries has generally found between a quarter and a third of consultations are with patients who are experiencing significant psychological distress. The World Health Organisation (WHO) international study in 15 different centres in 14 countries found that 24% of general practice attenders had a current mental disorder reaching ICD-10 criteria and another 9% had a sub-threshold disorder (clinically significant symptoms, but not meeting full criteria for ICD-10).<sup>4</sup> The lower rates of consultation for psychological reasons are not due to greater psychological health in this country. There is no less disorder in the New Zealand general population: prevalence rates of mental disorder in New Zealand are similar to European and North American countries in which many primary care studies have been undertaken.<sup>5</sup>

The apparently low prevalence of mental health problems in primary care may reflect the emphasis of the New Zealand general practice studies, which focused on asking for one main reason for attending one consultation. This may not allow for the complexity of reasons for seeking medical consultation, especially where those with physical illness also have psychological problems, where psychological distress is presented as somatic concerns, or where the GP has adopted a strategy of exploring the patient's problems in smaller "bites" over several consultations.

This pilot study aimed to randomly select GPs, and compare data from the General Health Questionnaire (GHQ) with the opinion of the GP about the psychological state of their patients.

## **Method**

### *Setting and sample*

Two settings were chosen for the study, both in the North Island of New Zealand. One was a largely rural area in Taranaki province. The other was Wainuiomata, a relatively deprived urban area located near Wellington city.

The study sampled both individual GPs and their patients. Lists of GPs in each area were compiled, and selection of GPs made from these lists. Patients visiting their GP were recruited if they were aged 18 years or over and were able to read, understand and complete the GHQ. A more detailed GP interview sought additional information about some patients. GHQ scores were used to allocate patients to three groups of severity of psychological symptoms. These groups were sampled for the GP interview with differing probabilities. All of the highest group were sampled, one third of the medium scoring group, and one in ten of the low-scoring

group. Patients who were not identified by the GHQ sampling strategy but were identified by the GP were also included for GP interview.

### *Measures*

The selection of measures in this pilot study were largely influenced by the WHO's International Study on "Psychological Problems in General Health Care".<sup>4</sup>

*Initial patient screening instrument:* The GHQ-12 is a 12 item self report questionnaire which has been widely used in primary care research. Each item is rated on a four-point scale representing the severity of symptoms of psychological distress over the past few weeks.<sup>4,6</sup>

*Encounter form:* A record of all patient consultations was completed by the GP. The encounter form asked about the patient's pattern of consultation, the reason for contact, current state of health, extent of physical and psychological components to the consultation, and the severity of physical illness and psychological disorder. The encounter form was adapted for New Zealand conditions from the "Physician Encounter Form" used in the WHO study.

*GP interview:* GPs were interviewed about patients who were identified by the GHQ sampling strategy, to obtain diagnosis of a mental disorder, onset of disorder, medication and other treatments and the GP's future plans for patient care.

*GP characteristic questionnaire:* GPs also completed a questionnaire about themselves, including: length of career; type of practice; specific experience or training in mental health; services offered to patients with psychological disorders; knowledge of and experience of local mental health services; and attitudes towards mental health.

### *Procedures*

*Recruitment of general practitioners:* A list of potentially eligible GPs within the two geographical regions was compiled from sources including the Royal New Zealand College of General Practitioners and a commercial agency handling GP publications. Selected GPs were sent a letter of introduction and invitation to take part in the study, followed where possible by a personal visit. Each GP was offered reimbursement for the opportunity costs of participating in the study, and participation earned re-accreditation points for continuing medical education and self-audit.

*Recruitment of patients:* On the days on which data collection occurred, the practice receptionist asked each eligible patient whether they would take part in the study by filling in a brief questionnaire on "stress and worry" as they waited to see their GP. Consenting patients were then asked by a researcher to complete the GHQ-12 as well as a few additional questions. The GP completed an "encounter form" immediately after the consultation. At the end of the day, the researcher met with the GP who completed the more detailed interview about the sub-sample of patients identified by the sampling strategy described above. A questionnaire describing the characteristics of the GP and practice was also completed.

*Analysis:* Descriptive statistics have been derived using the EPI-INFO statistical package.

## **Results**

### *General practitioner response rate, background and demographic variables*

In Taranaki, of 14 GPs selected, nine agreed to participate. Refusals were almost all due to lack of time. In Wainuiomata all seven GPs working in the suburb agreed to participate. This

yielded a combined response rate of (16/21) 76% for GP participation in the study. Thirteen of the GPs were male and three were female. The mean age of the GPs was 45 years (SD 12, range 32-66). Half of the GPs (8 or 50%) identified themselves as New Zealand European/Pakeha. The mean length of time practicing as a GP was 16 years (SD 12, range 2-37 years), and in their current practice was 15 years (SD 7, range 0.5-27 years). On average the Wainuiomata GPs had practiced for slightly longer (19 years vs 13 years). Almost two thirds were New Zealand graduates (10 or 63%). Only two GPs were not either a full or associate member of the Royal New Zealand College of General Practitioners.

*Patient response rate, background and demographic variables*

A total of 385 GHQ's were completed. The overall patient response rate was 96% (385/402). In Taranaki there were 57 (39%) men and 88 (61%) women with a mean age of 53.0 years (SD 18.0). In Wainuiomata there were 110 (46%) men and 130 (54%) women with a mean age of 45 years (SD 17).

*Results from the General Health Questionnaire-12*

Although four hundred and nine encounter forms which were completed, we report on 385 where there was also a completed GHQ. In Taranaki the mean GHQ score was 2.3 (SD 3.0) and the median was 1 (range 0 -12). In Wainuiomata the mean GHQ score was 2.9 (SD 3.5) and the median was 1.5 (range 0 - 12). The frequency distribution for both areas is shown in Table 1.

Table 1. Frequency distribution of scores on the GHQ-12

GHQ score	TARANAKI			WAINUIOMATA		
	Frequency	%	Cumulative %	Frequency	%	Cumulative %
0	63	43.4	43.4	82	34.2	34.2
1	18	12.4	55.9	38	15.8	50.0
2	21	14.5	70.3	32	13.3	63.3
3	9	6.2	76.6	14	5.8	69.2
4	3	2.1	78.6	15	6.3	75.4
5	7	4.8	83.4	7	2.9	78.3
6	9	6.2	89.7	11	4.6	82.9
7	4	2.8	92.4	8	3.3	86.3
8	2	1.4	93.8	5	2.1	88.4
9	2	1.4	95.2	8	3.3	91.7
10	4	2.8	97.9	9	3.8	95.4
11	0	0.0	97.9	4	1.7	97.1
12	3	2.1	100.0	7	2.9	100.0

The distribution of scores for the two areas did not differ significantly (Kruskal-Wallis  $\chi^2=3.387$ , df = 1, p = 0.066). Hence the groups are combined for further data analysis.

*GP account of reason for consultation*

*Frequency of Consultation:* A large group of patients (151/385 or 39.2%) had consulted 5 or more times in the past 12 months, 121 patients (31.4%) had consulted 3 or 4 times, 76 (19.7%) patients had consulted 1 or 2 times and 35 (9.1%) had not consulted the GP in past 12 months.

*Main reason for consultation:* Only in 22 cases (5.7%) did the GP feel that the main reason for consultation was psychological. In 169 (43.9%) cases the main reason for the consultation was a physical acute illness. In 70 (18.2%) cases the main reason was pain and in 55 (14.3%) cases it was for a physical chronic condition. Other reasons were administration/paperwork (5.2%), preventive health care (5.7%), pregnancy/family planning (5.7%). Patient's worry or concern was also recorded by the GP as an additional main reason for consultation in 14 (3.6%) cases.

*Extent of psychological symptoms present:* Table 2 shows that GPs thought the presenting problems were completely physical in 53% of patients. About a fifth (20.7%) had current symptoms that were thought to be mildly, moderately or completely psychological, although presenting symptoms were thought to be completely psychological in only 3.6% of consultations.

Table 2. Extent to which presenting symptoms are physical and/or psychological\* according to the GP

Extent	Physical		Psychological	
	Number	%	Number	%
Not at all	24	6.2	253	65.7
Somewhat	27	7.0	45	11.7
Mildly	29	7.5	32	8.3
Moderately	84	21.8	34	8.8
Completely	205	53.2	14	3.6
Not applicable	16	4.2	7	1.8

\* Physical/psychological categories are not exclusive

Looking back at each patient over the past year, the GP felt that just over 40.8% of patients had been mildly, moderately or severely physically ill during the past 12 months, whereas 17.4% were scored as a mild, moderate or severe case of psychological disorder during the past 12 months.

#### *Relationship between the GHQ-12 and the GP's opinion*

A "probable case" on the GHQ-12 was defined as a score of 5 or above. On the encounter form completed after each consultation, it was defined by the presence of mild, moderate or severe psychological disorder over the past twelve months. Overall the GP and GHQ-12 agreed in 77.6% of cases, but of 67 patients identified by the GP as having "significant psychological distress" only 36 (46%), and of the 90 GHQ identified "probable cases", 36 (40%) were thought by the GP to have "significant psychological distress". There were six missing cases on the encounter form, where the GP had not known the patient for a sufficient length of time.

Table 3. The relationship between GHQ probable "caseness" and being identified by the GP as having significant psychological distress

GHQ probable "case†"	GP identified significant psychological distress		
	No	Yes	Total
No	258 (68.1%)	31 (8.2%)	289 (76.3%)
Yes	54 (14.2%)	36 (9.5%)	90 (23.7%)
Total	312 (82.3%)	67 (17.7%)	379 (100.0%)

\* Missing data on six cases

†A "probable case" on the GHQ-12 was defined by a person scoring 5 or above.

### *Selection for detailed GP interview*

The detailed interview of the GP was completed for patients identified either by the GHQ sampling strategy or through identification by the GP (168 patients in total). The cut-points 1 and 4, when applied to the distribution of GHQ scores, allocated 23.4% (90) of the patients to the highest scoring group, 24.4% (94) to the medium group and 52.2% (201) to the low scoring group, and each group was sampled with differing probabilities as described above. There were 26 other patients (14.8%) not identified by the GHQ sampling strategy who were identified by the GP as having a significant psychological disorder. Of the 168 patients selected for the GP interview, 78 (46.4%) GP interviews were completed. For a further 64 (38.1%) of the 168 patients sampled, the GP interview was not complete as the GP responded that the patient did not have a history of known psychological disorder and there was not a psychological component to the current consultation. The remaining 24 (14.3%) patients sampled did not have GP interviews completed as they did not give permission for their consultation to be discussed with the GP.

### *Diagnosis of psychological disorders*

Psychological disorder most commonly diagnosed by GPs as 'possible' or 'definite' included mixed anxiety/depression (9.3%), depression (7.0%) anxiety disorder (2.1%) drug/alcohol disorder (2.1%) and personality disorder (2.1%).

### *Duration of illness and treatment*

Over half of patients with a psychological disorder identified by the GP were rated by the GP as having a "chronic ongoing problem" (44/78, 56.4%). Treatment in the last month for psychological disorder included anti-depressant medications (38.5%). In 38 (48.7%) cases no drugs were prescribed. Discussion of problems (65.3%) and regular follow-up (35.9%) were the most common 'other' treatments received by patients over the past month.

## **Discussion**

The results of this study cast some light on the paradoxical findings of previous general practice research in New Zealand in relation to the prevalence of identified psychological problems. When GPs were asked about the main reason for consultation, they identified only 5.7% of consultations as being for psychological reasons. This is consistent with the WaiMedCa, PriMedCa and CoMedCa studies,<sup>1-3</sup> but much lower than international studies such as the WHO study of Psychological Problems in General Health Care.<sup>4</sup> However, at the same time, the GPs thought that 20.7% of their patients described current symptoms which were mildly, moderately or completely psychological in the current consultation, and recognised that in the past 12 months 17.4% of their patients had a mild, moderate or severe case of psychological disorder. Although about a fifth of GP attenders were identified by the GHQ and by the GP as having significant psychological distress, only 36 of the 121 patients identified by either method were identified by both methods, suggesting that there are important discrepancies between what is identified by the GP and by the GHQ. When GPs are asked to rate the presence and severity of both physical and psychological symptoms, and not just one or the other, the New Zealand data on psychological problems begin to more closely approximate the patterns of use of primary health care services seen in other countries. Since primary care services are the sole source of treatment for about three quarters of those obtaining help for mental health problems<sup>7</sup>, further research is clearly warranted into factors influencing identification and treatment of mental disorders in primary care.

## References

1. Young BH. Healthcare patterns in two New Zealand communities. *NZ Fam Physician* 1985; **12**: 7-9.
2. Squires IHW, Leitch BJ, Stephenson AE, Simpson, JB. Caseloads in General Practice. *NZ Fam Physician* 1984; **11**: 6-11.
3. McAvoy B, Davis P, Raymont A, Gribben B. The Waikato Medical Care (WaiMedCa) survey 1991-1992. *NZ Med J* 1994; **107** (Supplement Pt II): 388-433.
4. Üstün B, Sartorius N. (Eds) *Mental Illness in General Health Care. An international study.* Chichester; World Health Organisation and John Wiley & Sons 1995.
5. Wells JE, Robins LN, Bushnell JA, Jarosz D, Oakley-Browne MA. Perceived barriers to care in St Louis, (USA) and Christchurch, (NZ): Reasons for not seeking professional help for psychological distress. *Soc Psychiatry and Psychiat Epid* 1994; **29**: 155-164.
6. Goldberg D, Williams P. *A user's guide to the general health questionnaire.* Windsor, Berkshire; NFER-Nelson, 1988.
7. Hornblow AR, Bushnell JA, Wells JE, Oakley-Browne MA, Joyce PR. Christchurch Psychiatric Epidemiology Study: use of mental health services. *NZ Med J* 1990; **103**, 415-417.

## Authorship Note:

The “MaGPIe” (Mental Health and General Practice Investigation) research group's management committee for this study consisted of John Bushnell (clinical psychologist), Anthony Dowell (general practitioner), Karin Friedli (health services researcher), Deborah McLeod (general practice research manager), Kirsten McMurray (health services researcher), and Clare Salmond (biostatistician). The MaGPIe Advisory Committee consisted of Sunny Collings (psychiatrist), Pete Ellis (psychiatrist), Marjan Klajkovic (general practitioner), Lynn McBain (general practitioner) and George Salmond (health services researcher).

All members of both committees were involved in the detailed planning of the study and have reviewed this paper. KF and KM collected and analysed the data and wrote preliminary reports under the day-to-day supervision of the management group. JB drafted and revised the paper and is the corresponding author.

