

Eighteen months of depression: examining the chronic care management of depression with particular reference to Pacific people

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ABSTRACT

INTRODUCTION: Primary care is responsible for the 17% of the population with mild to moderately severe mental illness. Total Healthcare Otara (THO), with 49% of its patients of Pacific ethnicity, presents an opportunity to study the primary care management of depression, inclusive of Pacific people. While it had been assumed that Pacific people in New Zealand suffer less mental illness, *Te Rau Hinengaro: The New Zealand Mental Health Survey* showed this is not the case.

AIM: The aim of the study was to examine a Chronic Care Management (CCM) programme for depression in a predominantly Pacific practice.

METHODS: A clinical audit of the CCM depression programme used by THO between 31 March 2009 and 30 September 2010. Participants were patients aged 18–64 years who scored ≥ 15 on the Patient Health Questionnaire-9 (PHQ-9). Computer templates completed for each consultation, including serial PHQ-9s, were analysed over time and across different ethnic groups.

RESULTS: Cook Island Maori patients participated in the CCM depression programme in proportionally greater numbers than their enrolment in THO, while Samoan and Tongan patients participated significantly less. The mean PHQ-9 score fell rapidly over the first few visits and then levelled off, without reaching the normal range. Dropout rate was 60% after the third consultation irrespective of ethnicity or gender.

DISCUSSION: There is a need for ethnic-specific research into depression in Pacific ethnic groups. A significant immediate improvement in PHQ-9 on entering the CCM depression programme suggests enrolment is therapeutic. However, further research into the CCM depression programme is needed, particularly the reasons for non-attendance.

KEYWORDS: Case management; depression; oceanic ancestry group; Pacific Islands; primary health care;

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Introduction

Extent of the problem

According to the World Health Organization (WHO), mental and behavioural disorders account for 12% of the worldwide burden of disease, with over 450 million people suffering from mental disorders.¹ In 2006, the WHO reported that integrating mental health into primary care is the most viable way to respond to the mental health needs of populations around the world, so to reduce the suffering, disability and economic

loss that comes from untreated or poorly treated mental disorders.²

Te Rau Hinengaro: The New Zealand Mental Health Survey revealed an estimated lifetime risk at age 75 years of any disorder fitting Diagnostic and Statistical Manual of Mental Disorders–4th edition (DSM-IV) criteria to be 46.6%; and 28.4% for mood disorder.³ The prevalence of mental disorder in the last 12 months was estimated to be 20.7%, and in the last month 11.6%.³ The prevalence of mental disorder was higher in Maori and

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Pacific people than other combined ethnic groups (non-Maori, non-Pacific New Zealanders). However, this difference was reduced, particularly for Pacific people, when socioeconomic group was taken into account.³ The MaGPIe (Mental Health and General Practice Investigation) study of 50 consecutive patients from 70 general practitioners (GPs) in New Zealand found over 50% had some psychological problems, with one in three having had a mental disorder in the last 12 months fitting DSM-IV criteria.⁴ These mental health problems were associated with significant disability, regardless of whether they met diagnostic criteria or were subclinical disorders.⁵ GPs identified psychological problems in about half their patients, although underestimating the severity of the problem.⁴ They were better at detecting psychological symptoms in patients whom they had seen a number of times,⁶ even more so as the degree of disability increased,⁵ meaning that screening or case finding strategies are better used in those patients the GP is seeing infrequently or for the first time.⁷ It was also found that GPs tended to diagnose and treat mental disorders in line with evidence-based practice;⁸ hence, they were recognising psychological symptoms, at least in their regular patients, and treating them appropriately.

Patients tend not to reveal their psychological symptoms. The MaGPIe research found that while only 5% of patients conceal physical symptoms, 62% of patients conceal psychological symptoms.⁹ GPs perceived barriers to the diagnosis and management of mental disorder to be time constraints, lack of training in appropriate interviewing techniques, and lack of access to high quality specialist services.¹⁰

With the development of primary health organisations (PHOs) came an awareness of the need to provide mental health care within primary care,¹¹ and a method for funding this, using a chronic care management (CCM) model. Counties Manukau District Health Board (CMDHB) developed the CCM module for depression, now funded directly from the Ministry of Health.¹²

Pacific mental health

Despite approximately 6% of New Zealand's population being of Pacific ethnicity (estimated to

reach 12% by 2051), there has been little research and understanding into mental health issues for Pacific people.¹³ Pacific people use mental health services significantly less than the general population;¹⁴ hence, there has been an assumption that Pacific people have a low prevalence of mental disorder.¹⁵ With the development of a toolkit for mental health services in primary care, attention was focused on the mental health needs of different ethnic groups, including the Pacific community, but there were no accurate data on their health needs.¹⁶ It was thought that the holistic view of health and wellbeing held by Pacific people may mean that they are unlikely to access mental health services early or to know what support services were available outside their family and church.¹⁶

Te Rau Hinengaro: The New Zealand Mental Health Survey oversampled to survey sufficient NZ Pacific people to provide the first accurate statistics on their mental health.³ They found that Pacific people had higher levels of mental illness compared with the general population (23.9% vs 19.2%) and higher rates of suicidal ideation, plans and attempts, compared with non-Maori New Zealanders.³ Three findings were of particular significance. Firstly, the prevalence of mental disorder was higher among New Zealand-born Pacific people (12-month prevalence of 31.4%) than Island-born Pacific people (15% prevalence for those who immigrated to NZ after the age of 18 years). Secondly, the prevalence of mental disorder was highest in the younger (15–30 years) age group. Thirdly, Pacific people with serious mental disorders were much less likely to access treatment than the overall NZ population (25% compared with 58%).³

Given that Pacific people are a youthful population (median age 21.1 years compared with 35.9 years in the overall New Zealand population), 60% are now born in New Zealand,¹⁷ and that this burgeoning population may well present late for mental health care, new strategies are needed to provide good quality care in the primary care setting.

Barriers to accessing good mental health care for Pacific people include patients' and their families' lack of perception of depression as a

health need,¹⁸ and cost and cultural discomfort causing 'unmet need'.¹⁵ Efforts to improve this have focused on the provision of services that are sensitive to language difficulties and a Pacific worldview;¹⁹ developing a negotiated space that values and balances Pacific cultural knowledge against a Western bio-psychosocial paradigm.²⁰ The diversity of Pacific culture is evident and includes differences between New Zealand-born and Island-born Pacific people.¹⁸

In the early 2000s, it was accepted that a significant barrier to appropriate care was the lack of cultural competence between Pacific patients and Palagi (Caucasian) health providers.^{18,21} There has been an emphasis on a 'by Pacific for Pacific' approach²² to reduce this unmet need, and this has led to the establishment of Pacific-owned health provider organisations and a focus on increasing the capacity and capability of Pacific health workers.²¹ The recognised need for culturally appropriate secondary mental health services¹⁹ has come to fruition with the development of Faleola, the Pacific mental health service at CMDHB,²³ Isa Lei at Waitemata District Health Board (DHB)²⁴ and Lotofale at Auckland DHB.²⁵ Investigations into the needs of this workforce led to a variety of recommendations to support and encourage the Pacific workforce,²⁶ with funds distributed through Le Va, the national Pacific mental health workforce development unit.²⁷

Working with primary care is one of the key priority outcomes of 'Ala Mo'ui Pathways to Pacific Health and Wellbeing'²⁸ and there is recognition of the need for more research into Pacific mental health.¹⁵ Whether this perspective remains applicable to New Zealand-born Pacific youth²⁹ who are known to have less church affiliation than other Pacific people¹⁴ is unknown.

Mood disorder is as common in Pacific people as in other non-Maori New Zealanders when the 12-month prevalence is adjusted for age, sex, educational qualifications and household income; the 12-month prevalence of depression amongst Pacific people is highest in Cook Island patients (12.1%), lower in Samoan patients (8.3%) and lowest in Tongan patients (6.7%).³ A report on the ethnic-specific health needs for Pacific people

WHAT THIS GAP FILLS

What we already know: There is a population of patients with mild to moderate depression and significant disability who need to be managed in primary care. *Te Rau Hinengaro: The New Zealand Mental Health Survey* showed that Pacific people do experience significant mental illness.

What this study adds: Research into depression in Pacific patients needs to be ethnic-specific. There is a marked fall in PHQ-9 depression score after enrolling patients in the depression programme, which suggests that recognising the depression may be therapeutic. For the significant number of patients where PHQ-9 score remains elevated; more supportive management is recommended.

in the CMDHB catchment area found a similar grouping—Samoan and Tongan people having similar needs, and Cook Island Maori and Niuean people forming another grouping.³⁰ This grouping may be due to the political free association between the Cook Islands and Niue and New Zealand, meaning these peoples have been in New Zealand longer, are more likely to have been born here, and less likely to speak their own language.³⁰ Given the strong association of suicidal ideation and suicide attempts with age of migration and loss of Pacific language,³ the prevalence of mood disorder may change over time in the Samoan and Tongan communities, as they remain longer in New Zealand.

Depression management

The acute phase of depression typically lasts six to 12 weeks before remission is achieved but 17% of patients may go on to chronic depression, more so the higher the initial Patient Health Questionnaire-9 (PHQ-9) score.³¹ Relapse can occur at any time and 50% of adults will subsequently relapse.²⁹ Relapse is less likely if the depression is treated until the patient is symptom-free, and if antidepressant medication is continued after remission.³¹

Routine screening of patients, the production of guidelines³² and simple educational strategies³³ are ineffective in improving the quality of care. What is needed is a change in the whole process of care.³⁴ Successful strategies combine education with multifaceted organisational approaches, such

as nurse case management, improved integration between primary and secondary care, telephone medication counselling, and active follow-up.³³ Possible solutions to barriers to care include increasing case management services, developing registries and reminder systems, agreeing on performance standards, specialist support, campaigns to reduce stigma, increased dissemination of empowering interventions, reorganising general practice time management, providing financial and organisational incentives for high quality care, and aligning depression with other chronic care management (CCM).³⁵

Collaborative care has proved to be effective management for depression, especially if it involves a GP, a case manager and specialist input.³⁶ The role of the case manager is to identify patients, assess their needs, develop a treatment plan, co-ordinate the care, and monitor outcomes, so care can be adjusted if necessary.³⁷ The care manager ideally would be located at the general practice and have access to a mental health specialist to liaise with about difficult cases.³⁸ The major barrier to the use of care managers is cost.³⁸

A CCM approach to depression was developed and used in Auckland by CMDHB, to endeavour to improve the care of patients with depression. Eligible patients were 18–64 years old, identified clinically during a routine consultation to have moderate to severe depression by a score ≥ 15 on the PHQ-9. The CCM programme offered these patients 12 free, extended consultations, with follow-up over 18 months and, if certain criteria were met, free cognitive behavioural therapy (CBT) up to a maximum of six sessions. Doctors provided patients with a ‘Wellness Plan’ folder at their first visit containing information about depression, strategies for self-management and medication side-effects, as well as emergency contact numbers, dates for future appointments and goal setting.³⁹ These folders were to be brought to each appointment. At each visit, the patient was required to complete a depression computer template, including a PHQ-9, and automatic feedback was given to the doctor for ongoing management. The PHQ-9 scores the intensity of the depression, which can then be assessed sequentially. The PHQ-9 has been validated as a screening tool for de-

pression²⁷ and for use in NZ general practice for screening and monitoring progress.²⁸ In March 2009, Total Healthcare Otara (THO) implemented the CMDHB depression programme. THO is a South Auckland PHO and the CMDHB component has an enrolled patient population that is 49% Pacific people.

This study aimed to examine the CCM programme used for treatment of depression in a predominantly Pacific practice, to determine whether the CCM protocol achieved satisfactory outcomes, and to suggest ways in which it might be improved.

Methods

A clinical audit was undertaken of the depression programme run through the CMDHB portion of THO—a collection of 12 medical practices, employing 44 doctors, run by a central management, with a live computer network linking all the surgeries. The analysis included all patients aged 18–64 years who participated in the programme in the 18 months between 31 March 2009 and 30 September 2010. Ethical approval was granted by the Northern X Regional Ethics Committee (Ref. NTX/10/EXP/142).

Information was extracted from the THO database on all patients who had participated in the programme, anonymised using National Health Index (NHI) numbers, and compared with data on enrolments of all 18–64-year-olds in the practices. Data were presented on Excel spreadsheets and analysed quantitatively. Data on the 770 patients were sorted for gender, age and ethnicity and compared with the THO data. The data on Pacific patients were examined both as one combined group and as separate ethnic groups. The Chi-square test was used to determine significance.

The total 2136 consultations in the CCM depression programme between 31 March 2009 and 30 September 2010 were sorted according to sequential visits. The percentage of patients returning for each follow-up visit was assessed. The change in the severity of depression was examined by looking at the mean and median serial PHQ-9 scores over the follow-up consultations.

The CCM depression programme computer template included information on medication, adherence to treatment and referrals, and this was also extracted and analysed. Referrals were correlated with data on patients attending counselling appointments.

Results

Table 1 shows the demographics of the patients participating in the CCM depression programme compared with the patients enrolled at the same practices in the PHO. Pacific people were 45% of

the PHO population, but only 28% of those in the programme were Pacific; hence, this ethnicity was significantly under-represented ($p < 0.0001$; Table 2). European and Maori patients were over-represented and Indian patients were seen in proportion to their enrolment in the PHO.

The number of Samoan and Tongan people participating in the CCM depression programme was significantly less than would be expected by the number enrolled in the PHO. This was significantly different from the Cook Island participants, where the trend was reversed and

Table 1. Demographics of participants in the CCM depression programme and comparison with PHO enrolments

Characteristic	CCM depression programme participants (n=770)	PHO enrolments (N=55 002)
Age (years)		
18–30	250	20 615
31–45	326	20 243
46–64	194	14 144
Gender		
Male	229	26 732
Female	541	28 270
Ethnicity		
All Pacific	213	24 526
Samoan	78	12 242
Tongan	23	4940
Cook Island Maori	95	5390
Other Pacific	17	1954
European	118	4454
NZ Maori	209	7840
Indian	155	12 271
Other	75	5911
Socioeconomic deprivation quintile group*		
Quintile 1	38	2934
Quintile 2	85	5151
Quintile 3	85	5718
Quintile 4	148	9351
Quintile 5	355	30 238
Quintile not specified	59	1610

CCM Chronic care management

PHO Primary health organisation

* The quintile group is a measure of socioeconomic deprivation, with 5 referring to the most deprived group and 1 the least deprived group.

Table 2. Enrolments in the PHO and CCM depression programme by ethnicity

Ethnicity	CCM depression programme participants (n=770)	PHO enrolments (N=55 002)	Ratio	P-value
Pacific	213 (28%)	24 526 (45%)	0.6	<0.0001
NZ Maori	209 (27%)	7840 (14%)	1.9	<0.0001
Indian	155 (20%)	12 271 (22%)	1	0.2
European	118 (15%)	4454 (8%)	1.9	<0.0001
Other	75 (10%)	5911 (11%)	0.9	0.419

CCM Chronic care management

PHO Primary health organisation

the percentage participating in the depression programme was significantly more than the percentage enrolled in the PHO (Figure 1). When separate Pacific ethnic groups were compared with all 18–64-year-old patients in the PHO, the trend for Cook Island patients to be over-represented remained but no longer reached significance ($p=0.035$). Significantly more patients in the 31–45 age range participated in the CCM depression programme and, when age was compared with ethnicity, Maori patients were over-represented in all age groups, Europeans in the 18–30 year age group and 31–45 year age group, but not in the 46–64 year age group. Pacific people were under-represented in all age groups. Figure 2 shows there was greater participation

by Cook Island patients aged 31–45 years, and less participation by Samoan and Tongan patients across all age groups, than would be expected from PHO enrolment numbers.

When results were corrected for differences in numbers of consultations for each age range and ethnicity, the findings did not change; Samoan and Tongan people were significantly under-represented and Cook Island patients over-represented in the programme, although the latter finding did not reach significance ($p=0.1$).

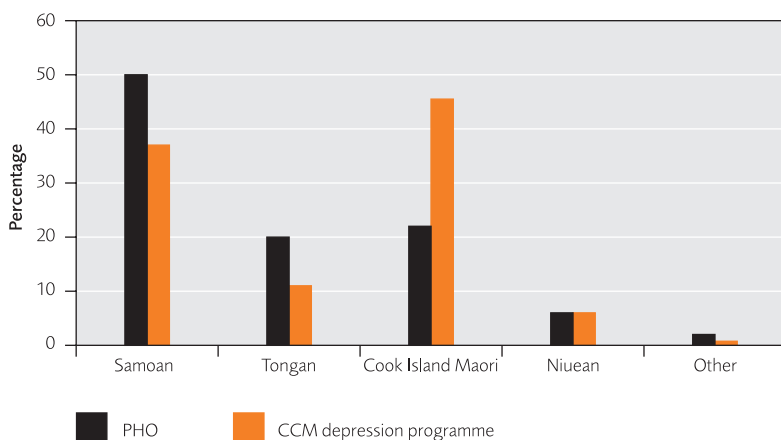
There was a rapid decline in the number of patients returning for subsequent consultations—greater than 35% of patients not attending a second appointment (Figure 3). There was an initial rapid fall in PHQ-9 score, which then did not vary markedly over time (Figure 4). Gender and ethnicity did not differ between those attending follow-up visits and the original sample.

Nearly half of all the patients enrolled in the CCM depression programme were referred for CBT at the initial consultation, but only 16% were actually seen. Referral to CBT was not affected by the severity of the PHQ-9 score or the ethnicity of the patient. Medication was prescribed for 80% of patients at their first consultation, with adherence of about 90%, which was similar across other practices in the DHB.

Discussion

More patients aged 31–45 years than those aged 18–30 years enrolled into the CCM depression programme, supporting the international finding

Figure 1. Comparison of the percentage of patients of different Pacific ethnic groups participating in the CCM depression programme and enrolled in the PHO



CCM Chronic care management

PHO Primary health organisation

that while the prevalence of depression is higher for younger people, the middle-aged are more likely to seek help.³ The ethnicity data showed that Pacific people were less likely to be diagnosed with depression (moderate-severe) and this was true across all age groups, and even when the data were corrected for the reduced number of consultations for Pacific people compared with other ethnic groups. This means that Pacific people were under-represented on the THO CCM depression programme, and since *Te Rau Hinengaro: The New Zealand Mental Health Survey* has shown that Pacific people have about the same prevalence of mood disorder as other non-Maori New Zealanders,³ it implies that the programme was not reaching this group.

Cook Island patients participated in the CCM depression programme significantly more than the other Pacific patients. Niueans participated in proportion to their enrolment in the PHO. This suggests that, when discussing access to mental health services for Pacific patients, it is important to be ethnic-specific. Further Pacific ethnic-specific research is needed to investigate these differences and if they alter with increasing enculturation into New Zealand society. While Auckland DHB³⁰ and Waitemata DHB³¹ are now both producing health needs assessments that are targeted at their Pacific populations, only CMDHB is making their health needs assessment for Pacific people ethnic-specific.³⁰

There was a large dropout rate from the initial visit to each subsequent visit, which did not alter the gender or ethnicity composition of the group remaining in the programme. An area for future research is to explore reasons why patients did not continue on the programme. The serial PHQ-9 scores showed an initial marked fall followed by a 'levelling out' of scores. This suggests that making the diagnosis of depression and being enrolled onto the programme may be in itself therapeutic.

The failure of the mean PHQ-9 score to fall below 5 suggests chronic depression. One quarter of patients with depression consider their depression chronic,³² and in these cases, the goal of treatment must be increased resiliency and improvement in a sense of wellbeing,³³ where the

Figure 2. Comparison of Pacific patients participating in the CCM depression programme by age and ethnicity, compared with the PHO

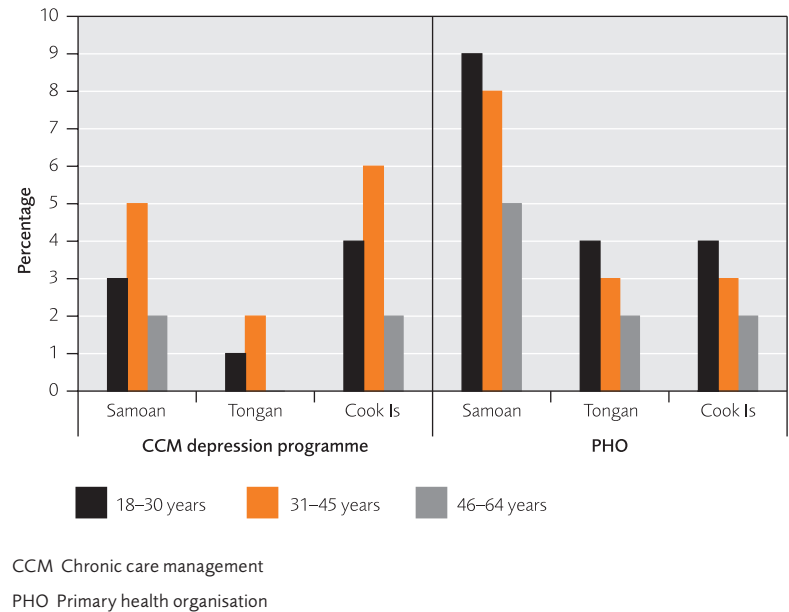
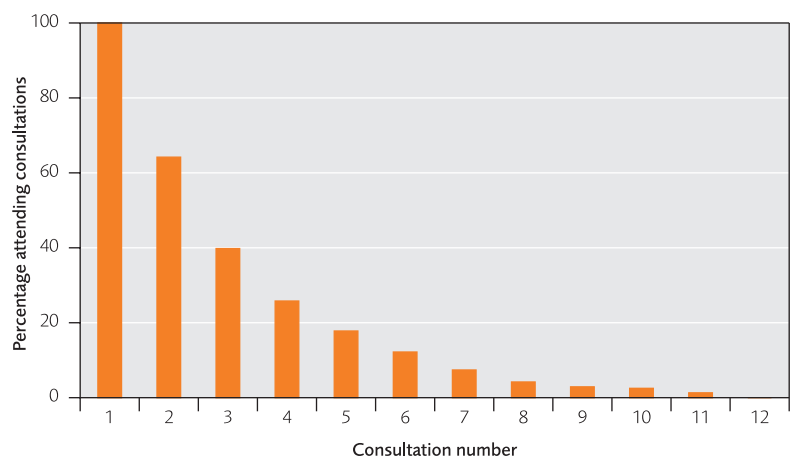


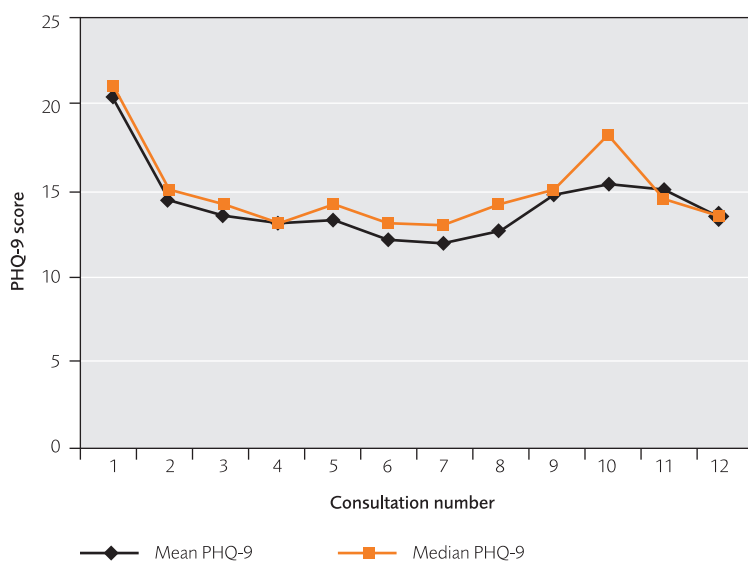
Figure 3. Percentage of patients returning for follow-up at each subsequent visit



GP focus is on encouraging the patient to achieve a fulfilling life.³⁴ This approach would not fit so readily into a 12-session block of care.

Patients are being missed from enrolling in the CCM depression programme and are not being followed up. Only about 1.4% of enrolled patients participate in the programme, whereas the lifetime prevalence of mood disorder is around 20%.²⁹ One estimate suggests a GP will miss

Figure 4. Mean and median PHQ-9 scores for serial consultations



PHQ-9 Patient health questionnaire-9

around six cases of depression a week.²⁷ Strategies need to be put in place to improve enrolments into the CCM depression programme. The use of the Patient Health Questionnaire-2 (PHQ-2), with the addition of a 'help' question, is an appropriate method of screening for depression,³⁶ but would need to be incorporated into routine triage of our patients, particularly the infrequent attenders.

It was unexpected to find that Maori patients participated in the CCM depression programme at nearly twice the level of their enrolment in the PHO. The reasons for this require further research, but some possible explanations would be an increased prevalence of depression, increased severity of depression, or more frequent presentation.

A strength of this study was the size of the PHO and its Pacific patient database, with access to live data from all doctors and all patients within the PHO, in a real clinical setting. The limitations of the study were that it was an audit of existing information, with no opportunity to elicit qualitative data, seek new information, or follow up patients who did not continue on the programme. Despite access to 55 000 patients, only 770 were

enrolled in the CCM depression programme. Sample sizes, hence, were small and it was not possible to do further analysis, such as on the doctor-patient interaction, or on smaller ethnic groups, such as Niuean patients.

The loss from the programme of 60% of patients by the third visit is of concern. Follow-up or case management has been highlighted as one of the most important features of an effective programme for depression,³⁷ with the responsibility for active follow-up taken up by a case manager.³⁴ The NICE guidelines recommend an extended period of follow-up, with 9–12 weeks of psychosocial input, up to 20 weeks for interpersonal psychotherapy and six months of drug therapy for mild to moderate depression.³⁸ The CCM depression programme run by THO began first with one, then two dedicated staff members providing follow-up and case management for patients, but this was inadequate and a new system of case management has been implemented where practice nurses in each separate surgery take on the role of case management. This follow-up may be as simple as a phone call.³⁹ While follow-up affects patient loss from the programme, there is no information available from this audit as to why patients did not return for further visits. Factors influencing why patients attend or do not attend further consultations for depression management require further study.

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COMPETING INTERESTS

None declared.