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Clinician perceptions of common mental disorders before and after implementation of a consultation-liaison psychiatry service: a longitudinal qualitative study in government-operated primary care settings in Penang, Malaysia

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ABSTRACT

Objectives To explore primary care clinician perceptions of barriers and facilitators in delivering care for common mental disorders (CMD) before and after implementation of a consultation-liaison psychiatry service (Psychiatry in Primary Care (PIPC)) in government-operated primary care clinics and to explore the clinicians' experience of the PIPC service itself.

Design This longitudinal qualitative study was informed by the Normalisation Process Model and involved audiotaped semi-structured individual interviews with front-line clinicians before (Time 1) and after (Time 2) the PIPC intervention. The Framework Method was used in the thematic analysis of pre/post interview transcripts.

Setting Two government-operated primary care clinics in Penang, Malaysia.

Participants 17 primary care medical, nursing and allied health staff recruited purposely to achieve a range of disciplines and a balanced representation from both clinics.

Intervention Psychiatrists, accompanied by medical students in small numbers, provided one half-day consultation visit per week, to front-line clinicians in each clinic over an 8-month period. The service involved psychiatric assessment of patients with suspected CMDs, with face-to-face discussion with the referring clinician before and after the patient assessment.

Results At Time 1 interviewees tended to equate CMDs with stress and embraced a holistic model of care while also reporting considerable autonomy in mental healthcare and positively appraising their current practices. At Time 2, post-intervention, participants demonstrated a shift towards greater understanding of CMDs as treatable conditions. They reported time pressures and the demands of key performance indicators in other areas as barriers to participation in PIPC. Yet they showed increased awareness of current service deficits and of their potential in delivering improved mental healthcare.

Conclusions Despite resource-related and structural barriers to implementation of national mental health policy in Malaysian primary care settings, our findings suggest that front-line clinicians are receptive to future interventions designed to improve the mental healthcare capacity.

Strengths and limitations of this study

- This qualitative study adds to the growing body of knowledge exploring the potential for upscaling primary care services for common mental disorders (CMDs) in low-income and middle-income countries.
- To our knowledge, the study is the first to report on attitudes to care for CMDs and the experience of on-site consultation-liaison psychiatry in primary care settings in Malaysia.
- The study design is strengthened by its use of an established model to elucidate the process involved in embedding complex interventions in routine practice.
- The quality of the findings is enhanced by the fact that interviews were conducted with the same participants before and after the intervention.
- Conclusions in relation to the potential for future task sharing in primary mental healthcare are limited by the relative under-representation of clinic staff who were not physicians.

INTRODUCTION

A broad international consensus has emerged that primary care offers the most appropriate locus of care for common mental disorders (CMDs).[1] Randomised controlled trials, in high-income and low-income countries, have demonstrated improved patient outcomes

from collaborative care for CMD.[2–4] A Cochrane review also found improvements in patient mental health outcomes through the application of the primary care consultation-liaison model.[5] The consultation-liaison and collaborative care models both emphasise the role of a mental specialist in providing support and supervision to primary care health workers.[6 7]

As most evidence-based interventions for CMDs have been developed in high-income countries, they are not easily transposed to low-income and middle-income countries (LMICs).[8–10] LMICs face additional challenges of limited resources, competing healthcare priorities, poor service coordination and tensions between medically trained health providers and traditional healers who may have greater cultural acceptability.[11–13]

Prevalence rates for CMDs in primary care settings in Malaysia are similar to those of western countries, with at least 24% overall prevalence.[14] Depression and anxiety disorders, with prevalence rates of 12.1% and 7.8%, respectively, are the most frequent CMD diagnoses encountered in primary care, but only 7% of Malaysians who meet diagnostic criteria for a CMD have been previously diagnosed by a health professional.[15–17]

Malaysia has a dual health system, where universal access to government operated primary and secondary care exists in parallel with a large and expanding private health sector. Health expenditure, 4% of Gross Domestic Product, is relatively low and expenditure on mental health, at 1.3% of total government health spending, is less than half the global median of 2.8%.[18] There are particular concerns that the growing burden of non-communicable diseases (NCDs), including asthma and diabetes, is not being adequately addressed by the health system's existing design and resources.[18] While general practitioners in private practice provide the bulk of primary care, publicly funded government health clinics deal with a disproportionate percentage of the country's chronic disease burden.[19]

Malaysian government mental health policy includes the objective of integrated psychiatric services in mainstream general healthcare and this includes early detection and prompt treatment of mental disorders.[20] However, service data in relation to implementing this policy in primary care settings is notably lacking in government publications. With regard to mental health training, it has been reported that the majority of primary care doctors received official in-service training on mental health within the past 5 years but the majority of nurses have not.[21] Doctors in primary care are authorised to prescribe a restricted number of psychotropic medications but nurses are not permitted to independently diagnose and treat mental disorders in primary care.[20]

A further issue was pointed out in a recent appraisal of systemic barriers to hypertension management in Malaysia, in which it was stated that 'undergraduate medical training does not focus on primary care, so that newly qualified doctors are often unfamiliar with the conditions seen at this level'.[22]

Malaysian primary care physicians in private practice have reported a lack of training in diagnosing and managing CMDs such as depression.[23] While a range of systemic and patient-related factors impact on the success or otherwise of attempts to integrate and deliver mental health services in primary care settings, implementation relies, inevitably, on the skills and attitudes of non-specialist, front-line healthcare providers.[24] To date, however, there has been no published research exploring the clinician perspective on challenges and opportunities for implementing of evidenced based models of care for CMDs in primary care settings in Malaysia.

The Royal College of Surgeons in Ireland and University College Dublin Malaysia Campus (RUMC), a medical school in Penang, Malaysia, has collaborated with the Ministry of Health Malaysia, to deliver and evaluate a Psychiatry in Primary Care (PIPC) service at two local primary care clinics, employing the consultation-liaison model. The impact of this project, from an undergraduate educational perspective, has been reported previously.[25] Here, we report findings from a longitudinal qualitative study among front-line health professionals. The study used the Normalisation Process Model (NPM) which is described as elucidating the work involved in embedding complex interventions in routine practice.[26 27] NPM proposes a set of four core constructs (table 1) to guide researchers in exploring the perceived meaning of the intervention by participants, their commitment to make it work and the likelihood that they will monitor and adapt the intervention for sustained use.[28 29] NPM has been the primary approach to collection, analysis or reporting of data in a large number of studies of the implementation of healthcare techniques, technologies or other interventions.[29 30]

The aims of the study were (a) to explore primary care clinician perceptions of current barriers and facilitators

Table 1 Normalisation Process Model (NPM)—core constructs and summary definitions

NPM core constructs	Definition
(1) Coherence	Sense-making work that people do individually and collectively when operationalising a set of practices
(2) Cognitive participation	Relational work that people do to build and sustain a community of practice
(3) Collective action	Operational work that people do to enact a set of practices
(4) Reflexive monitoring	Appraisal work that people do to assess and understand the ways in which a new set of practices affects them and others around them

in delivering care for common mental disorders before and after implementation of the PIPC initiative and (b) to explore primary care clinicians' experience of the PIPC service.

METHODS

Overall study design

A longitudinal qualitative design was chosen as appropriate to the aims of the study. Longitudinal qualitative research has been described as 'distinguished from other qualitative approaches by the way in which time is designed into the research process, making change a key focus for analysis' and as such is regarded as particularly useful in assessing the feasibility and acceptability of complex interventions.[31] The Consolidated criteria for Reporting Qualitative research were used to guide the design and reporting of the study.[32] The study design did not include an attempt to directly compare qualitative findings between the two study sites. The authors felt such comparison, while of potential interest, was not intrinsic to fulfilling the aims of the study and could have engendered a sense of unease among the study participants.

Setting

Penang (population 1.5 million: capital George Town), one of Malaysia's 13 states, has 33 publicly-funded primary care clinics from which the Penang State Department of Health selected two for involvement in the study. The criteria used for selecting the clinics included that they were both urban and as such representative of the 70% of the Malaysians who live in urban settings, that they carried a relatively large patient caseload, had the capacity to provide a consultation room for the PIPC service consistently and that the round-trip travel time from the RUMC campus was feasible.

Both clinics provided a range of general and social care services. Mental health services included screening patients using the Depression Anxiety and Stress Scale (DASS 21).[33] In addition, a small number of patients with stable mental illness were followed up, following discharge from mental health facilities. One clinic (Clinic A) had 80 clinical staff, predominantly nursing, with 11 physicians, including one family medicine specialist (FMS) and served a newer suburban community with young families and high employment levels. The second clinic (Clinic B), located in an economically deprived downtown area, had 44 staff, mainly nursing, with seven junior medical staff and no on-site FMS.

PIPC programme description

Three academic psychiatrists (VR, AB and UV), accompanied by medical students in small numbers, each contributed one half day session (08:30 to 12:30) per week at the two selected primary care clinics. The first author (VR), who led the project, had provided psychiatric consultation, on-site, in primary care settings in Canada and Ireland.[34 35] In a preliminary planning meeting, VR outlined details of the PIPC service and its evaluation at both health clinics. In explaining the operation of the PIPC service, it was emphasised that all primary care clinicians were invited to refer primary care patients with suspected CMDs. It was made clear that while the decision to refer or not to the PIPC service rested with the clinicians, referral implied that the clinician would make themselves available to meet the consultant psychiatrist for discussion of the case at the time of the PIPC session. The option was presented of either face-to-face discussion of the referred patient (indirect consultation) or a clinical assessment (direct consultation) followed by face-to-face diagnostic feedback and management recommendations on the case referred. It was also clarified that participation in the PIPC sessions by primary care clinicians was not confined to the referring clinician but was open to any available clinicians on the day of the visit, whether or not they agreed to be recruited as interviewees for the study. It was explained that the consultant psychiatrist would be present throughout the session and personally conduct the session and directly supervise the medical students. The primary care clinicians were advised that the clinical assessment, would be supplemented by administration of the Primary Health Questionnaire where indicated.[25 36] A full typed consultation report to the referring clinician was provided within the following week.

Sample and procedures

A Malaysian medical graduate (CEL), trained in public health, was appointed as research officer to the project. CEL received training in qualitative methods in preparation for her role and joint supervision and mentoring from authors VR and IL throughout the study. She had no previous contact with staff at either clinic. However, she was broadly familiar with the structures and processes within government operated health clinics, including the roles of the various health professionals employed. She recruited candidates for individual semi-structured interviews purposefully, from a list of clinicians employed at each of the two health clinics. The purposeful sampling sought to recruit a mix of front-line clinicians of different professional disciplines and a balanced representation from both clinics involved in the study. It was intended, as far as possible, to interview the same individuals before and after implementation of the PIPC service. CEL approached each potential interviewee individually, describing her background, obtained informed consent and carried out the interviews on-site at the respective clinic at a time convenient for the interviewee. Clinicians' engagement in the PIPC service itself, in terms of patient referral or attending face-to-face meetings, was not sought as a condition for inclusion as an interviewee in either the baseline (Time 1) or post-intervention (Time 2) interviews.

A topic guide was developed by the investigators, informed by the study's aims and relevant published literature. The wording of exploratory questions was modified, as needed, according to the professional background and

envisaged role within the health clinic of the individual interviewee. The interviews, each lasting 30–40 min, were held at baseline or Time 1 (T1), before the 8-month pilot PIPC intervention commenced and at follow-up or Time 2 (T2), within a 2-month period following its completion. Interviews at baseline explored the clinicians' knowledge, attitudes and skills in relation to service provision for CMDs, their interest in taking on an expanded role in this area and their needs for support, training and supervision. No third parties were present during the interviews.

At follow-up, the topic guide was informed by findings from the baseline analysis. It explored change in primary care clinician views of CMDs and their management, their experience of the PIPC initiative and their opinions regarding future provision of primary mental healthcare. The interview guide was piloted among three primary care clinicians employed in clinics not included in the study. At baseline, 18 clinicians were interviewed individually, 9 at Clinic A and 9 at Clinic B. At follow-up, 16 in total were interviewed, 8 at each clinic, all of whom had been interviewed at baseline. One interviewee at baseline had moved work location and another was on leave during the period of follow-up interviews.

Data analysis

Because the study design involved the use of a priori constructs we adopted framework analysis.[37] Within the framework method, we employed a combined deductive and inductive approach, addressing the NPM constructs deductively while leaving space to discover unexpected aspects of the participants' experience.

The interview transcripts were imported into NVivo V.10 software for analysis. The authors adapted the steps as outlined in the Framework Method.[37] VR, CEL and AB initially familiarised themselves with the data by reading and re-reading the transcripts. VR developed coding framework based on the four NPM constructs and coded units of text from the interview transcripts, at T1 and T2, and this framework was shared and agreed with CEL and AB. Having employed the NPM constructs deductively in the early stages of analysis, these three authors, separately revisited the data inductively to identify themes that related to the NPM constructs and more broadly to the study's aims. The professional discipline and roles of the interviewees was specifically analysed to ascertain similarities and differences between roles. Subsequent discussion between these three authors addressed apparent overlap and areas of agreement and divergence in the interpretation of data, before a consensus was achieved on a final set of themes.

Patient and public involvement

Patients or the public were not involved in the design, conduct, reporting or dissemination of our research.

RESULTS

Project implementation and utilisation

A total 51 visits were carried out by the three consultant psychiatrists in person, on a regular weekly basis throughout the 8-month study period—26 at Clinic A and 25 at Clinic B. At both health clinics and throughout the 8-month study period, all PIPC sessions were conducted in same dedicated room, which was made available consistently. A total of 69 individual patient consultations were provided, of which 54 were direct and 15 were indirect. At each clinic, a designated primary care physician was nominated to liaise with clinician colleagues at the health centre and to secure a minimum of one and a maximum of two patient referrals to PIPC service per visit. The designated primary care physician then provided confirmation of the referral to the secretary at the Department of Psychiatry 1 week in advance of each visit. A written referral in advance was not required but the patient interview did not proceed without prior face-to-face discussion with the referring clinician on the day of the visit. Attendance by the primary care clinicians at the PIPC sessions is summarised in table 2 below. At both clinics, although all clinical disciplines had been invited to participate in the face-to-face consultations, medical staff participation predominated. The minimum required attendance of one primary care clinician was present at each PIPC session and an average of 1.23 primary care staff present per session. In the great majority of consultations, participation was by the designated primary care physician, while the on-site FMS at Clinic A was present on seven occasions.

Table 2 Frequency of PIPC participation by primary care clinicians

Primary care clinician	Number of PIPC sessions attended: Clinic A, total=26	Number of PIPC sessions attended: Clinic B, total=25
Family medicine specialist	7	1
Designated primary care physician	23	19
Other physicians	6 (3 physicians)	11 (5 physicians)
Nursing sister	3	0
Nursing matron	0	4
Other nursing	0	1

PIPC, Psychiatry in Primary Care.

Table 3 Descriptors of primary care clinician interviewees and number of PIPC sessions attended by individual interviewees

Professional discipline	Age range	Gender	Duration of employment in clinic in years	Number of PIPC sessions attended
Clinic A				
Medical	30–35	M	2	0
Medical	30–35	M	6	3
Medical	30–35	F	6	18
Medical	35–40	F	7	0
Medical	25–30	F	1	0
Medical	35–40	F	6	0
Nursing	45–50	F	8	3
Nursing	30–35	F	2	0
Nursing	20–25	M	<1	0
Clinic B				
Medical	30–35	F	4	2
Medical	30–35	M	1	13
Medical	30–35	F	2	1
Medical	30–35	M	7	4
Medical	30–35	M	3	2
Nursing	55–60	F	14	4
Nursing	35–40	M	5	1
Allied health	30–35	F	2	0
Allied health	25–30	F	1	0

PIPC, Psychiatry in Primary Care.

The demographic profile of patients referred for direct consultation was broadly similar at both clinics. More referrals at Clinic A were diagnosed with major depressive disorder and anxiety disorder and almost one-third of referrals at Clinic B did not meet criteria for a Diagnostic and Statistical Manual of Mental Disorders 5th edition (DSM-5) psychiatric diagnosis. Most patients were recorded as having a comorbid medical diagnosis. The content of feedback and recommendations following psychiatric consultation included diagnostic opinion with patient and family psycho-education recommendations regarding psychotropic medication and on self-management/lifestyle.

Descriptors of interviewees are presented in table 3 below.

Findings

Thematic findings at Time 1 and Time 2 relating to the four NPM constructs are summarised in table 4 below.

Common mental disorders as 'stress'

At baseline, before the introduction of the PIPC service, while some interviewees made spontaneous reference to the presence of depression and anxiety among clinic attenders, most did not appear to identify with the concept of a threshold of symptoms, suffering or functional impairment that would lead them to diagnose 'caseness'. There appeared to be a general perception, across both study sites and across disciplines, of psychosocial stress as universal and strongly associated with social or financial pressures. A general awareness of the prevalence of CMDs as comorbidities in the presence of long-term medical illnesses such as diabetes or heart disease seemed to be relatively absent.

> Everybody has some sort of psychiatric condition- I wouldn't say illness. I think stress is a form of mental condition as well, isn't it? So everybody goes through it. Interviewee 6

The minority of interviewees who used diagnostic terms appeared to identify with a narrow concept of formal psychiatric diagnosis. There seemed be a perception that such disorders were not frequently encountered, as suggested by the following extract:

> Not everyday I see them, maybe once a while only. Maybe, sometimes in a week I don't think I see any of those sorts of patients. Interviewee 11

A small number of interviewees made spontaneous reference to the increased risk of depression and anxiety disorders among patients with diabetes and hypertension. However, even when this was recognised, they seemed to underestimate the prevalence.

Table 4 Summary thematic findings in relation to NPM constructs

NPM construct	Themes at time 1	Themes at time 2
(1) Coherence *Sense-making making for health professionals regarding their perception of CMDs*.	Interviewees, at baseline interview, tended to conceptualise CMDs in terms of 'stress' rather than of 'illness'.	Interviewees demonstrated a shift towards a more biomedical understanding of CMDs, post-intervention.
(2) Cognitive participation *Relational work that builds and sustains front-line staff's community of practice in relation to CMDs*.	The shared value attached to holistic care informed primary care clinicians' community of practice in mental healthcare.	Interviewees identified barriers to 'buy in' and sustained engagement with the primary care consultation psychiatry intervention.
(3) Collective action *The operational work that healthcare providers do to enact a set of practices in relation to common mental disorders*.	Healthcare providers perceived themselves as relatively autonomous in their current operational work in mental healthcare.	Participants implemented the intervention, but with certain departures from the service model as originally intended.
(4) Reflexive monitoring *Appraisal work by healthcare providers to assess and understand the ways in which the intervention for CMDs affects them and others around them.*	Healthcare providers, at baseline interview, tended to positively appraise their existing practice in mental healthcare and viewed the proposed on-site psychiatry service for CMDs with some caution.	Post-intervention reappraisal by study participants acknowledged the benefits of the primary care psychiatry service for CMDs and the potential for future improvements to the overall service for CMDs in primary care.

CMDs, common mental disorders; NPM, Normalisation Process Model.

Shift in understanding of CMDs

The post-intervention interviews revealed a shift towards a positive impact on the sense-making surrounding CMDs. The perceived benefits among interviewees included increased awareness of CMDs as medical diagnoses, recognition of the value of the PIPC service on-site as an option for patients and greater knowledge of community mental health supports with which the primary care clinicians had been previously unfamiliar:

> I would say it was good in a way that it does help in terms of diagnosing and all these things. And we are actually more confident in treating them and what other options that we have. Interviewee1

Of the nursing and other allied health professionals (AHPs) interviewed at Time 2, only two had attended the PIPC consultations so that it was not possible to identify obvious evidence of change in their understanding of CMDs. However, one was emphatic in articulating her increased awareness of the association of CMDs and other NCDs

> Now I know that in patients with chronic problems the mental problems and other disease like diabetes, they have some depression problem. Interviewee 2

In terms of the impact of PIPC participation on the skills of individual clinicians, the opportunity to observe the interview technique modelled by the consulting psychiatrists seemed to be especially valued:

> Yah I can see you know because this session that I have attended has really taught me, you know, what to look out for in patients, like to look specifically for the symptom that they are having you know, to diagnose what problem that they are having- so it actually helped me quite a lot. Interviewee 15

Holistic care

Interviews carried out at baseline, before the intervention, suggested that healthcare providers identified with the concept of holistic patient care as a guiding principle and they described a willingness to explore patients' emotional and socioeconomic difficulties. Their cognitive participation in this seemed to inform interviewees' clinical approach and to offer a justification for addressing psychosocial concerns during the patient contact.

> Cos this is a community health, a health clinic, I'm not in a specialty clinic so I have to see every case that comes and see the patient as a whole. Interviewee 7

Some interviewees also conveyed sensitivity towards patients' reluctance to disclose mental health symptoms directly. There were several spontaneous references to the value of attending to patients' body language in prompting exploration of psychosocial issues. Interestingly, several physicians referred to the complaint of insomnia as a marker of potential emotional distress.

> Most commonly they are unable to sleep like maybe have a stress- like financial. Interviewee 13

Although the numbers of non-physician interviewees were fewer, their engagement with the concept of holistic care as informing their professional role was no less evident.

> By looking at the person also you will know that the patient is having emotional problem and the way we talk, we can get so many things from them… I feel

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communication is very important- good communication and also eye contact. Interviewee 2

Barriers to engagement

Even among interviewees who were relatively more involved in the PIPC service, opportunities to participate in the consultation sessions were seen as limited by time constraints and the relentless demand to maintain patient throughput. Some physician interviewees acknowledged that they had avoided direct interaction with the PIPC service and conveyed this openly, as in the following exchange:

> Interviewer: 'How many sessions did you manage to join so far?
>
> Interviewee: 'To be honest, none, because I cannot just leave patients and come. And half the time we were covering other clinics.' Interviewee 6

In this wider service context, there was little sense, therefore, of general buy-in to the PIPC service as an accepted part of the physicians' work.

A binary pattern emerged in terms of responses from physicians to questions exploring their cognitive participation in the PIPC service: some described concerted attempts to overcome the obvious systemic barriers to engagement while others remained at a distance from the project, explaining that they felt unable to leave their normal clinical duties.

Relative autonomy in mental healthcare

In the baseline interviews prior to implementation of the PIPC service, the overall sense conveyed was that the physician interviewees perceived few if any organisational expectations or incentives to engage in collective action in relation to mental health presentations. They acknowledged an absence of key performance indicators that impacted on them directly in the area of mental healthcare and considerable clinical autonomy in determining their individual response. Collective action seemed to be mobilised in situations involving potential risk or disruption to the functioning of the clinic resulting from a presentation with psychotic illness, as illustrated in the following:

> Things like they hear voices, then they have this delusion thinking and things like that…… behaviour, very sudden behaviour changes, then we will refer too. Interviewee 9

Examples of collective interdisciplinary action involving medical and nursing staff emerged only in nursing interviewees' references to the fact that they could request the physician to see a patient with a suspected mental health problem. They seemed generally comfortable with a hierarchical relationship with their physician colleagues and clear lines of authority.

> Most probably, I will refer these cases to the doctors, get their opinion and know what to do. Interviewee 3

One interviewee from a nursing background, however, expressed views that were quite divergent in this regard. She described no hesitation in approaching patients she felt might have mental health problems directly.

> We play a very important role also. Because we need to search at the early stages. So, sometimes the doctor is too busy to detect this kind of thing. Sometime the patient is stressed because waiting too long. So, we should be the one who should be telling the doctor. Interviewee 3

While specific questions in relation to the administration of the DASS screening tool at the Health Clinics (HCs) were not included in the topic guide at T1, it was notable that spontaneous references to its application almost never occurred.

Implementation—but not as intended

Analysis of the post-intervention (Time 2) interview transcripts strongly suggested that the PIPC was perceived as a service for which suitable cases had to be found, rather than that referrals were readily identified. Consequently, the designated liaising physicians reported difficulties in recruiting more than one referral per visit from either their own or their colleagues' caseloads. It was clearly difficult also, for any of the physicians to attend for the minimum agreed clinician presence at the beginning and end of each consultation session.

> Somehow we managed it…we make sure we plan ahead and then make sure we have enough people. Interviewee 11

Physician interviewees also elucidated why referral was more feasible in the case of recent attenders. Spending relatively more time with new patients in history taking meant that they could more easily incorporate questions exploring the patient's mental health and consider the option of a PIPC referral. The relatively low referral rate for patients with long-term medical conditions was attributed to the added time pressures in monitoring physical parameters during each patient visit, so that exploring mental health symptoms risked prolonging the patient encounter and causing delays in patient throughput.

> Because our chronic diabetes or hypertension appointments come out at least 50 patients. So it is just getting the HbA1c, blood, etc. The problem is we really don't have adequate time to…yeah, because you ask all these things, then you are opening up a closet of problems. Interviewee 1

Positive self-appraisal of current practice

In the baseline interviews, there were no references to the existence of formal structures or processes for individual or collective appraisal of mental health service provision.

However, several physician interviewees expressed confidence in their ability to respond to the mental health needs of their patients. A divergent opinion was expressed

by a minority of interviewees who acknowledged that the area of mental health was not a priority, as illustrated in the following response to a question in this area:

> They want to push the staff to hospital. So we're having less staff here. So I cannot put most of my effort in dealing with this kind of patient. Interviewee 2

The imminent introduction of the PIPC service, in general, received a cautious welcome. However, several interviewees voiced concerns that it could place an added burden on already overstretched clinicians and potentially disrupt existing service provision:

> It's a good programme, they have got our support but err the thing is err we really appreciate if let say err… if it's been done with our load and our…our stress is being considered too…most of the days we are in bad shape. Interviewee 9

A similar pattern emerged in response to exploration of clinicians' previous experience and training in mental health, in that the physician interviewees felt generally satisfied with their current skill level.

> Hmm, I would actually most of the time what I can do is actually to talk to them, to give a bit of counselling. Interviewee 1.

In contrast, nurse interviewees were tentative in appraising their current role in mental health area, while several openly acknowledged the limitations of their nurse training in the area of mental health.

Recognising potential for change

Following the PIPC intervention (Time 2), there was an overall sense from the interviews at that the clinicians had developed more fully-formed opinions than before in respect of mental healthcare provision, in general:

> So now at least there's an alternative. Because sometimes there are patients who are rather reluctant to be referred to psychiatry. They just want medication and you know it's not the right thing to do. Interviewee 16

A number of suggestions emerged on how the organisation and resourcing of the services at both clinics could be modified to become more feasible and compatible with competing clinical demands within the working day. These included that the PIPC service not be scheduled in the morning, when peak clinical activity occurred, while others felt it would be better delivered as a continuous medical education activity, completely separate from the working day.

Views on the limitations of the PIPC intervention appeared to be tempered by acknowledgement that the actual clinical service was well organised. There was also general agreement among interviewees, that the great majority of patients and their relatives seemed to be satisfied with the manner in which they were interviewed, as well as with the quality of feedback and management recommendations.

> From the ones that I saw they handle it quite well. They manage to get a lot of history from the patient and they manage to get information but they did it in a way that it didn't make the patient feel uncomfortable. Interviewee 16

In the post-intervention interviews (Time 2), there was broad agreement in relation to the perceived shortcomings in the administration of the DASS screening tool. Most physicians acknowledged that they rarely administered the DASS during their patient contacts because of lack of time and the perception that the tool was too long. They criticised the practice whereby the DASS was administered opportunistically until a quota was reached:

> I don't think there should be a quota because when you have a quota you try to fulfil the quota more than trying to help the patients so I think there shouldn't be a quota. Interviewee 8

Interviewees from a nursing background were less forthcoming, apart from one, who acknowledged that they selected patients opportunistically and felt the DASS was too lengthy to be useful in a primary care setting. Some physicians expressed frustration regarding the limited number of tasks formally assigned to nurses in mental healthcare. There was potential, from the perspective of a number of physicians, for the role of nurses and AHPs to be broadened considerably beyond these circumscribed tasks.

> I think their role is quite important …I think everyone should be more involved in identifying these type of cases, I don't think it just should be the doctors' job. Interviewee 15

As was evident in other areas explored, non-physician interviewees appeared more accepting of the status quo with regard to their role in general, apart from one interviewee who was more assertive in articulating the uniqueness of the nursing role as complementary to the medical contribution.

> 'We play a very important role also…we should be the one who should be telling the doctor- 'this patient is having some mental issues'. Interviewee 2

DISCUSSION

To our knowledge, this study is the first to explore the factors promoting and inhibiting capacity-building in primary care mental health, from the perspective of frontline primary care health professionals in a Malaysian context. It is also the first to report on the perceptions of Malaysian primary care clinicians of their role in mental health before and after implementation of an on-site consultation-liaison psychiatry service. In summary, the thematic findings revealed that the primary care clinicians embraced a holistic model of care in which the contribution of psychological distress and socio-cultural

and economic factors was central. However, this did not seem to extend to a general awareness of CMDs as clinical entities requiring identification and treatment in a medical sense. The front-line clinicians' direct participation in the service was limited by severe time pressures in meeting the demands of their daily work. Even though the PIPC programme was perceived as burdensome, the experience created greater awareness among front-line clinicians of CMDs as medical conditions for which current service provision was inadequate. The clinician interviewees were prepared to express criticism of current screening practice in primary mental health and opinions on how the overall service could be improved by enhancing opportunities for nursing and AHP front-line staff in primary mental healthcare.

Clinician views on mental health conditions care prior to implementation of the PIPC service

The baseline (Time 1) interviews revealed similar findings to those revealed in previous studies in regard to ambiguous views on the part of the physician interviewees towards CMDs as diagnoses and the general struggle with shared meaning in regard to CMDs.[24] However, in contrast to findings from similar qualitative studies among primary care clinicians, there was little evidence of dualistic concepts of mind and body or of 'separators and integrators'.[38 39] In contrast, the clinicians interviewed for the study seemed to reflect Malaysian societal attitudes, as revealed in previous research suggesting that the social causation of mental disorders and an integrated model of physical and mental health prevails within Malaysian society.[40 41] To this extent, some of the attitudinal barriers towards collaborative care among front-line medical practitioners, as revealed in the previous literature, may not be as prevalent among Malaysian primary care clinicians.

In other respects, however, findings from the interviews with clinicians at Time 1 revealed similar barriers to effective care for CMDs in primary care settings to those identified previously: these included time pressures, deficits in clinicians' mental health training and a tendency to normalise mental health symptoms.[42 43] Similarly, the absence of reflexive monitoring in relation to mental healthcare, as evident in the Time 1 interviews, has been found even in relatively well-resourced western settings.[39] Limited consultation time and the experience of excessive workload pressures can make it hard for front-line clinicians to explore new ways of working, resulting in what has been described as a 'climate of inertia'.[44] This phenomenon may have been reflected in interviewees' expressed caution in advance of the pilot implementation of PIPC.

Clinicians' views on mental health conditions and of the PIPC service following implementation

The NPM framework employed in the thematic analysis at Time 2 helped to elucidate the reasons underlying the modifications and departures from the intervention as originally planned. The fact that Time 2 interviewees included clinicians who had not personally attended the PIPC sessions enabled a wider perspective on the structural barriers to attendance. It also provided a window into the broader impact of the PIPC initiative on the culture within the health clinics during the study period and on the evolving perceptions of CMDs and their management among clinicians who had not attended PIPC sessions.

Interviewees at Time 2 who had made referrals to the PIPC service acknowledged that their primary motivation in providing referrals was to make the programme work, rather than because of an identified need for psychiatric consultation. This finding may reflect, at least in part, the status of the study participants, as relatively junior clinicians within the hierarchy of a health system in which decision-making has been described as highly centralised.[45] Similarly, while many factors outside the scope of the study may have contributed to the relatively low numbers of referrals of patients with CMDs to the PIPC service, the clinicians may have felt obliged to achieve the minimum number of referrals agreed when the PIPC service was proposed, (one to two patients per session). There is an associated concern, therefore, that these healthcare providers might lack intrinsic motivation to sustain the changes in their clinical behaviour in mental healthcare into the future. The impact of the on-site PIPC service appeared, nonetheless, to impact positively on awareness of CMDs, especially among those clinicians who had participated in face-to face consultations on several occasions. This supports previous research suggesting that the presence of on-site psychiatric consultation involving face-to-face discussion with primary care clinicians, has a positive impact on the level of awareness of mental health issues.[7]

In a study that explored attitudes to the implementation of collaborative care for depression among mental health workers using the NPM framework, Gask *et al* concluded that professional freedom could work both for and against the normalisation of collaborative care, as some clinicians may not feel obliged to adopt new ways of working.[46] Our study participants were all salaried employees within the Malaysian publicly funded health service. Nonetheless, the interviewees were prepared to express criticism of the quota system for administration of the DASS 21 scale, while several interviewees also commented on the perceived underutilisation of non-medical primary care staff in mental healthcare. Task-shifting from medical to non-medical and lay health professionals is essential in scaling up mental health services in resource-constrained settings, while negative attitudes to change on the part of front-line staff have been identified as a key barrier.[43 44] Our interview findings are optimistic, therefore, in suggesting that notwithstanding the enormous demands of service delivery, the primary care clinicians are receptive to innovations that can lead to improved patient care.

A strength of the study is that it achieved a very high level of engagement among participants in both the pre-intervention and post-intervention qualitative interviews.

Also, while the two participating clinics were located in the same geographical area, they represented service catchments with differing socioeconomic profiles. Although introduced on a pilot basis, PIPC is still operating as a clinical service to date, and has been extended to other clinics in Penang. The continued formal approval of the PIPC service by senior management of the primary care services, after the present study concluded, was greatly helped by the fact that two of the PIPC consultant psychiatrists (AB and UV) were available to continue the clinical service. Positive administrative relationships forged through collaboration at many levels during the study period were maintained by VR's immediate successor as Head of the RUMC Psychiatry Department, who provided ongoing leadership and support for the project.

A limitation of the study is the under-representation of interviewees from a non-medical background, relative to the numbers of staff from these disciplines employed at both study sites. Also, because the qualitative interview participants included some staff who had face-to-face contact with the consultant psychiatrists and some who did not, no firm conclusions are possible regarding the relative influence on the findings of personal participation as compared with the indirect effect on the culture of the clinics arising from the PIPC initiative. Finally, because the pilot intervention employed in this study was confined to a consultation-liaison psychiatry service on site in primary care, clinicians' direct experience of collaborative care models involving the use of mental healthcare managers, could not be elicited.

CONCLUSION

In conclusion, this study revealed that the wide gap between Malaysian mental health policy and implementation results in part from overwhelming service demands on front-line staff and competing demands to meet key performance indicators prioritising physical illness. With regard to the potential for full-scale implementation of collaborative care for CMDs in LMICs, the findings suggest that prerequisites include clinical leadership from trained family physicians, training and preparation of frontline staff, the availability of specialist mental health expertise and support from key agents of change at higher levels in the health system. In terms of specific recommendations in a Malaysian context, an opportunity exists to integrate the recognition and management of CMDs into platforms of care for diabetes, because a case register and a system for monitoring diabetes parameters in primary care are already established.

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