

Perspectives of Pharmacists Towards Patient-Centred Mental Health Pharmacy Services: A Focus Group Study

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Abstract

Introduction: The rising prevalence of mental illness is a growing concern. Integrating pharmacists into mental health care teams could help address this challenge by improving service quality and accessibility for patients. This study investigates pharmacists' opinions regarding treatment care in the Kuantan and Pekan areas and their attitudes toward patient-centred mental health pharmacy services. **Methods:** A qualitative study was conducted with 63 pharmacists around Kuantan and Pekan, Pahang, utilising a focus group discussion (FGD) style. The pharmacists were selected through purposive sampling from 2 general hospitals, 2 district health offices, and 1 teaching hospital. All locations are primary healthcare in Malaysia. The focus group topic guide was created using the relevant literature research. The entire interviews were audio-recorded and then transcribed verbatim. Thematic analysis was performed inductively to analyse the data. **Results:** This study involved 14 focus group sessions with all 63 pharmacists participating. Every interview was in person at the designated sites. From the interviews, 6 key themes were identified. 1. Role of pharmacists in mental health care. 2. Pharmacists-patients' interactions. 3. Interprofessional collaborations with other healthcare workers. 4. Challenges and barriers. 5. Training needs for pharmacists and lastly 6. Improvement on the role of pharmacists and future practice. **Conclusion:** This research explores Malaysian pharmacists' perspectives on mental health treatments. It highlights pharmacists' potential contributions to mental health care, the challenges they face when assisting patients with mental health conditions, and the current limitations of mental health services in Malaysia's primary healthcare settings, hospitals, and Klinik Kesihatan.

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Introduction

World Health Organization (WHO) stated more than 350 million people have already been diagnosed with depression, 60 million people with bipolar disorder, and 21 million with schizophrenia. (Wakida et al., 2017). Mental illness is a state in which a person is unable to function in a community due to abnormal cognition, emotion, or behavioral symptoms (Yeap & Low, 2009). Mental health service is one of the most important departments of primary health care, but due to community stigma, there is a treatment gap and low capabilities to handle mental patients (Henderson et al., 2013), mental health services sometimes being forgotten and the health systems are unable to adequately respond to mental health burden (Wakida et al., 2017). Malaysia adopted a model of care consisting of in-patient and community care. The primary care model is community-based, with 22 established community-based specialized mental health services (MENTARI) and 958 mental health day centers. Additionally, Malaysia has four mental health hospitals and 47 psychiatric in-patient units attached to general hospitals (Raaj et al., 2021). These are all the primary healthcare in Malaysia. During the coronavirus disease 2019 (COVID-19) pandemic, some healthcare workers have already shown effects on their mental health state such as post-traumatic stress disorder (PTSD) and depression (Daryanti et al., 2021). The global prevalence of mental health problems among healthcare workers showed the highest was from nurses (43.7%), then doctors (27.9%) and allied health workers (7%). Post-traumatic stress disorder was the highest mental health problem among them indicated 49%, followed by anxiety, at 40% (Daryanti et al., 2021). The past data from 2020 until early 2021 also suggested that there is psychosocial suffering in the general population and increased distress among healthcare workers, exposed to the early stages of mental disorders. This indicates the importance of mental health services in primary health care and involving pharmacists can be one of the crucial interventions to improve mental health outcomes among mental health patients.

The pharmacist is regarded as the easiest accessed primary healthcare provider (Gan et al., 2018). Mental health patients, who were prescribed psychotropic medications should be monitored and get proper management and advice from a

pharmacist. This situation makes pharmacists a crucial addition to the mental health collaborative teams. One study proved that having pharmacists in mental health collaborative teams resulted in good feedback from mental health patients and other health care providers (Bell et al., 2007). Furthermore, taking psychotropic medication might present difficulties such as side effects, worries about reliance, and associated stigma; finding appropriate treatment can be challenging (Maroun et al., 2018). As much as the prevalence of mental illness is high among all ages and generations, taking psychotropic medications also becomes a burden in public health as general. The pharmaceutical Experience Model, developed by Wegremeyer et al. (2014), incorporates these pharmaceutical experiences together with other important themes related to drug use, like adhering to a prescribed regimen and medication load. Although it was developed based on the personal experiences of adult consumers using psychotropic medicine, this model illustrates the relationships between medication experience, medication acceptance, and sickness experience. It is likely to be relevant for a younger demographic (Wheeler et al., 2019)

According to the most recent epidemiological statistics, which the Malaysian Ministry of Health provided in 2015, 29% (95% CI 27.9–30.5) of adults had a mental illness. This represents a threefold increase above the 10% prevalence rate in 1996 (Ning et al., 2020).

Pharmacists frequently provide psychotropic medicine and have successfully assisted patients in addressing issues and advancing mental health. Consequently, for this to occur, numerous opportunities for pharmacists to play a more prominent role in mental health care must be made available (Silva et al., 2018). As you can see in Malaysia, pharmacists play a very small or non-existent role in providing mental health care across all health sectors, including general hospitals, public health clinics, and even private hospitals.

There was previous survey study made by Malaysian researchers found that pharmacists did offer a wide range of services in different types of facilities, but the scope and depth of these services may be improved (Abousheishaa et al., 2022). Therefore, from this study, as a stepping stone to the next level for pharmacists' involvement in mental health care to improve, we will investigate the views of pharmacists in the Kuantan and Pekan areas,

regarding treatment care and attitudes about patient-centred mental health pharmacy services.

Materials and methods

Study settings and recruitment

A qualitative, focus group discussion among registered pharmacists was conducted for this study. A total of 14 Focus group discussions (FGD) methods were held from August 2023 until December 2023 at Kuantan, Pahang. The qualitative study was chosen to explore in-depth more about their perspectives on current mental health services in our primary healthcare in Malaysia and their experiences when dispensing and encounter with mental health patients (McMillan et.,al. 2020). The pharmacists included were practiced pharmacists from primary healthcare in Malaysia which were government hospitals, Klinik Kesihatan, and Sultan Ahmad Shah Medical Centre (SASMEC). The study was conducted at Klinik Kesihatan Indera Mahkota, Kuantan, Hospital Tuanku Ampuan Afzan (HTAA), Klinik Kesihatan Pekan, Hospital Pekan, Pahang and SASMEC. Ethical approval for this study was obtained from the Medical Research and Ethics Committee (MREC) of Ministry of Health (MOH) Malaysia, with the identification number of: NMRR ID-23-01687-IE3. The sample size of this study was 63 pharmacists overall. This study used a purposive sampling. For their participation in the study, all pharmacists had signed written consent forms. Participants were recruited based on the inclusion criteria below All participants agreed to participate out of their own free will no one refused to participate. Pharmacists' inclusion criteria Must be a registered pharmacist, practicing in different facilities such as a hospital setting, several government health clinics, and a multi-centre hospital, Sultan Ahmad Shah Medical Centre @ IIUM, and working in any pharmacy department at least 2 years.

Data Collection

14 groups, consisting of 4-6 pharmacists in each group, were interviewed using a focus group study topic guide. The duration for each session was approximately 45 to 55 minutes. The topic guide is mostly open-ended. Before creating the interview topic guide, a comprehensive evaluation of the literature was done to address the research questions.

The phenomenology approach served as the foundation for the interview. The open-ended questions for the pharmacists primarily centred on their experiences with mental health patients, the services they have received for both physical and mental illnesses, any recommendations they may have for expected services for mental health patients, their thoughts on patient-centred mental health pharmacy services, and any expectations they may have for education when working with mental health patients. Before the interview, all participants were required to sign the consent form. All the interviews were audio-recorded by using the application "Voice Recorder" on the smartphone. Interviews were conducted by two pharmacist researchers (NAR and SZ).

Data Analysis

All the recorded audios were transcribed verbatim. The main author analysed the transcriptions independently first by using inductive thematic analysis through ChatGPT. After getting the main themes from the saturated data with the thematic analysis, the main author and her co-investigator re-read the transcription returning to pull out the pertinent remarks, convert them into a code for the corresponding primary ideas that had previously emerged, and condense them by using macro views in Microsoft Word (Ose et., al, 2016). The important comments/codes were highlighted and coded into their respective themes. The quotes were trimmed and edited to give clarity and conciseness. All data analyses were independently verified by a co-author and the co-investigator to ensure accuracy and reliability. These recurring themes served as a basis for collecting data and making judgments.

Results and discussion

14 groups with a total of 63 pharmacists were interviewed in this focus group discussion (FGD). 4 groups consisting of 16 pharmacists were interviewed on 19 September 2023 at the Meeting room, Klinik Kesihatan Indera Mahkota, Kuantan. All of them were pharmacists from Pejabat Kesihatan Daerah Kuantan. 3 groups consisting of 17 pharmacists were interviewed on 20 September 2023 at the Meeting Room, Hospital Tuanku Ampuan Afzan, Kuantan. Another 3 groups consisting of 16 pharmacists were interviewed on 3 October 2023 at Meeting room Pejabat Kesihatan Daerah Pekan and another 3 groups of 12 pharmacists from Hospital Pekan were interviewed

on 4 October 2023. Another last group consisted of 4 pharmacists from SASMEC and their interview was conducted on 12 December 2023. All of them were conducted face-to-face. The mean interview duration was 47 minutes, with a range of 38 to 1 hour 11 minutes. Table 2 below shows the participants' demographic data.

Table 1: Participants' Demographic Data

Age	21 -30 years old	16
	31 – 40 years old	35
	41-50 years old	12
Gender	Male	13
	Female	50
Race	Malay	57
	Chinese	4
	Indian	2
Current work pharmacy unit	Outpatient pharmacy	41
	Drug information services	1
	Inpatient pharmacy	11
	Logistic pharmacy	5
	Satellite pharmacy	1
	Others (Ketua Jabatan, Clinical & MTAC)	4
Number of years working (current unit)	1 – 5 years	57
	6 – 10 years	6
Total no. of years working	1 – 5 years	24
	6 – 10 years	21
	>10 years	18

All the participants revealed to have experience in dispensing medications to mental health patients. Data analysis showed 6 main themes that emerged

from the focus group discussion (FGD) such as: 1. Role of pharmacist in mental health care. 2. Pharmacists – patients interactions. 3. Interprofessional collaborations with other healthcare workers (Doctors, Medical Assistant (MA) & Nurses). 4. Challenges and barriers. 5. Training needs for pharmacists and lastly 6. Improvement in the role of pharmacy and future practice. Each theme consisted of several subthemes. All these themes and subthemes were provided along with the verbatim quotes extracted from the interview transcriptions. All the related quotes extracted and being coded below to reflect the themes and subthemes that emerged from them. Some of the quotes are being edited for clarity and conciseness. The quotes from the participants will be provided below and the participants will be identified as P1 until P63.

1. Role of pharmacist in mental health

The interviewees shared their opinions regarding pharmacists' roles in mental health care. Each gave their opinions on the roles that pharmacists should play going forward in providing all rounded services in mental health treatments. The subthemes that appeared were; 1.1 to ensure compliance of medications among mental health patients. 1.2 dispensing correct dosage. 1.3 counselling on side effects of medications. One participant mentioned there was a role of pharmacists in ward and clinical department. Pharmacists were seen tagging around with psychiatrist doctors and also checking their medication in ward directly. other pharmacists in inpatient department or other departments only involved during the ward check which occur monthly or once in a 3 months.

"...We check carefully during ward check sessions if staff nurse or doctor use the medication, whether they record every time they use the medications or not, are they tally or not, DD especially because it is the most important. So if there are MTAC pharmacists or clinical pharmacists who can attach there, maybe they can do this kind of checking regularly. Don't have to wait until 3 months, or 6 months for a ward check. Make it as another routine for clinical pharmacists in a psychiatric ward." (P22)(M)

1.1 To ensure the compliance of mental health patients

The participants gave several opinions on the role of the pharmacist which usually only stressing about the compliance of medications especially towards mental health patients.

"We know that patients are mentally unstable, so whether they comply with their medications or not. So to ensure their compliance, for me, we have to carefully observe and make sure patients are complying with their medication....." (P1)(M)

Another participant also emphasized that compliance is important to make sure that there is no relapse of symptoms in patients and to ensure that the treatment given is effective in controlling patients' symptoms.

"...for pharmacists directly involved. Because it is true haaa..how the patients taking their medications and we can counsel on that. Then the efficacy of the treatment, the factors that contributed to it, patients must comply with their medications, their adherence towards the medications, so the role of pharmacy here is pretty much important." (P8)(F)

"For me, role of pharmacist in mental healthcare is more towards how to ensure patient more compliance with their medication because.. ha.. ha.. mental health in Malaysia I think emphasized more about compliance right , so ha...counselling about medication is also important." (P38)(F)

1.2 Dispensing on the correct dosage

Even though the keyword is the dose of medications, it is still related to the medication regimen as a whole.

"...involve indirectly, for example about the dose, compliance, and medication" (P14)(F)

There is also one of the participants who feels worried when some doctors in the psychiatric ward just simply increase the dose without checking with the pharmacist first.

"If following guideline, the dose must take about 2 weeks to increase, but the doctor in ward, less than 1 week, already changed the dose." (P22)(F)

It is not only about the dose or regimen of the medications, but the dosage form of the medications also one of the role of pharmacists when dispensing the psychotropic medications.

"The role of pharmacists itself is already important, especially when dispensing the medications at the counter, usually simple things like the dosage form of the tablet, color, if the shape of tablet changed also, the patients might be more particular compared to other patients" (P49)(F)

"Based on my experience, when we dispensed the medications, we are more concerns on telling the patients

how to consume the medications...." (P62)(M)

1.3 Counselling on the side effects of the medications

Psychotropic medications are very well known for their side effects. The most common are drowsiness, weight gain, headache and dizziness. . Some of the participants expressed concerns about the side effects that patients might get after taking the psychotropic medications so counselling them on how to handle the side effects is also one of the most important roles of pharmacists and they are only limited to counsel the side effects' part.

"Our role other than to supply medication at the clinic aa, and the counselling part only limited on the medications that might have side effects on patients." (P33)(F)

"Like us pharmacists, can only take part the role on talking about medication and side effects as well as pharmacotherapy part to reconfirm certain diagnosis." (P48)(F)

"....So when we have the side effect of the medications, it is our role to explain the side effects, especially if the patients taking the atypical psychotropic medications, the old generation one." (P49)(F)

"When Dispensing, we must know everything about the medications, the characteristics of the medications, and also the possible side effects that might occur and the precaution if the side effects occur." (P62)(M)

There is also one of the participants who stated that sometimes, their role is only about dispensing medication, not that much on the side effects counselling as patients in Klinik Kesihatan are usually already stable.

"So the role of the pharmacist only dispense the medication, not so much intervention on the side effects, because patients are stable and have been on with the medication for so long." (P40)(F)

2. Pharmacists-patient interactions

The participants discussed several types of interactions with mental health patients. The interactions with mental health patients are very limited only when dispensing medications.

"...If me, I just treat mental health patients almost the same as other types of patients. If they got mad or quite rude when talking to us, I just kept quiet and not reciprocate their rudeness, just talk as usual" (P2)(F)

"If we encounter with mental health patients, we just act

as outpatient pharmacist only....." (P14)(F)

The participants also discussed the interactions between pharmacists and patients usually about the side effects and their medications in general.

"...I remembered there is one patient, he always said that his medications is not enough 1 or 2 tablets. Their medication is DD, so it is weird if it is not enough because DD is usually always being recorded when we want to give to patients." (P8)(F)

"With the right skills and better understanding, we can manage, we can have better understanding of the patient, so that we don't have to trigger that much. I feel because we do not understand their conditions, so that is why....." (P31)(F)

"They mostly talked about medications, about side effects, or they are asking the effectiveness of the medications, is it the medication okay or not, they are not really informing doctor, so one of the role of pharmacists also always informing the doctor." (P58)(F)

Pharmacists sometimes try to do the counselling sessions or have more time to listen to them but difficult due to time constraints and mainly just giving the medications.

"Just like my colleagues said, if stable patients, we can interact with them like normal persons, because we know their history, we know how to tackle them. Usually, we will ask them a lot of questions, and listen to them while they tell us their story. Sometimes they just need someone to listen to....." (P9)(F)

"...We are bound to our working time and we only have 2 hours only for dispensing the medications, so we cannot ask a lot of questions to them. For example if u said that you can dispensed only for 5 patients in a day, then you can ask a lot of question and counselling during dispensing. So our time frame not allowing this." (P46)(F)

The interactions with mental health patients are also either positive emotions from the interactions such as empathy, sympathy, or trying to understand them better or very bad experiences such as quite dangerous misbehaviour, rude and yelling behaviour, very difficult to entertain during dispensing.

"Maybe because of the stress, I do feel empathy actually. So pity, because we didn't even know their background story, their history of why they get the mental illness. If they are born with the mental illness, then maybe we can understand them, but those who already old but still

stressed and have the mental illness" (P1)(M)

".....because for patients, if they cannot sleep, it is already a big issue for them. Their life feels so much disturbing because of that. So the way we respond to them...." (P23)(F)

"Sometimes patients are like..with us..maybe they are stressed waiting for their medications for too long, so when we dispensed to them, they dind't even bother to listen to us. Sometimes they cried, like that."(P15)(F)

".....Yeah, got some patients who threatened us, not like serious like threatening to kill us or what, just threatened to file a complaint. But patients who are taking DD is not this rude usually." (P18)(F)

"There is one case also, at outpatient pharmacy, that patient was got so mad that she just pull out one of our pharmacist's scarves. That time I just calling for 'code grey' to the whole hospital, because patient is so uncontrolled and aggressive. Every month will have the same issue with this same patient, she will act so dramatic in front of the counter, she is actually a patient from other hospitals, she just take the medications here, and when the date is near for her to come, to collect her medications, we will always get ready, because she always have issue with us. She will act aggressive, she do not want to wait, her medications has DD, but she cannot wait." (P18)(F)

"I have a lot of experience with mental health patient when I was in HTAA. That time I have bad experience with psychiatric patient and they have some stigma while at HTAA. Patient there are very difficult to entertain, a lot of demand....." (P36)(F)

There is also a situations of their interactions when pharmacists do not even know how to interact back to mental health patients.

"There is one patient, who currently taking medications from us, she was like, looks stable, actually stable, but she suddenly said to me, 'life is not meaningful anymore, I just want to die.', so at that time, I do feel shocked. To counsel back err....want to interview her more but I do not know how. Quite negative." (P13)(F)

Sometimes mental health patients are always accompanied by their caregivers. Communication with their caregiver is also very important. Just like how they communicate with mental health patients, they also emphasize the importance of communicating well with patients' caregivers for treatments..

"....We will always see when we encounter aggressive and rude mental health patients. They sometimes just

throw the prescription slips at us, and got angry without any reason even though they are being accompanied by their caregiver. Their caregivers sometimes look ashamed....." (P1)(M)

"...We give example, we give 15 tablets for 30 days, and we ask caregiver if is it not enough? The caregivers said, if patients look unstable, then I give another 1 tablet. Haaa...so I think our part as a pharmacist is over there. We encounter the situations by telling back to the doctor about the situations." (P31,F)

There is only 1 participant that mentioned his experience with mental health patients at their ward.

"...They talked a lot. Based on my experienced while visiting their ward at previous workplace, They are talking to me about their own life experience, not many of them asking me about their medications. They just talked to me how and why they end up being a mental health patients." (P53)(M)

3. Interprofessional collaborations with other health care workers (doctors, nurses and medical assistants)

The collaboration between pharmacists and other healthcare workers is one of the most important components that need to be done first to build the MTAC of psychiatry.

3.1 Interprofessional collaborations in general

One participant showed agreement on having the pharmacists collaborate with other healthcare workers dealing with the increasing cases of mental illness.

"Nowadays many people are being exposed with what is depression and so on, so actually a lot of people experience some of the depressions symptoms. People who look like have a great career but actually has a depression. We actually do not know this. So I think if MTAC being established, actually it is a good idea, because we can consider that many people have the mental illness nowadays." (P9)(F)

One of the participants also stated that if need to establish MTAC, doctor's cooperation is always the most important factor.

"Must have the cooperations from the doctor, and doctor I think always welcome this opportunity. To collaborate with us. So, we have to do this together to established the MTAC Psychiatry." (P24)(F)

Not only with doctors but also medical assistants and nurses because a lot of things such as

space to do the counselling session during MTAC also need everyone's cooperation.

"Something simple like a place/space to set up for MTAC sessions, comfortable enough to do the counselling, for me needs the cooperation and collaboration from other staff such as nurses and MA." (P22)(F)

When doing the inter-collaboration between doctors and pharmacists, the need to distinguish roles between two of them is so much necessary to prevent any overlapping.

"Until now, if there is any interventions, all of them are coming from the doctor, not from the pharmacists and doctor also not query us anything about the regimen or dose of medication to us. Means there is a lot of gap there and need a clarification on the role for both of us." (P25)(F)

"We do not even know what doctor has counsel the patients, so if we also counsel the same patients, afraid its not the same thing with what the doctor already said to the patients"(P62)(M)

3.2 The communication between pharmacists and other healthcare workers

The participants shared what kind of communication happened between them and other healthcare workers, especially doctors and psychiatry. Some of them talking about the drug-drug interactions because some of mental health patients also have other comorbidities.

"Or sometimes they also asked us about patients, if the patient got seizures is it still under psychiatry part.. so basically they just asking about drug-drug interaction." (P1)(M)

And some of them talking to pharmacist about the dose of medications whether it is suitable or not with their patients.

"We just interact with doctor only by call through telephone. Only when there is any changes of medications or not." (P61)(M)

"Secondly if the doctor is the one ask us if those medications suitable or not with their patients. No..not really suitable or not the medications, but more to the strength of the medications. For example, we don't really keep lamotrigine 50mg, we only keep 100mg, so if they want to give low dose like 25mg, can cut the tablet or not." (P61)(M)

"If inpatient, they always query when patients are suicidal, they ask us the lethal dose. hmm lethal dose or, toxic dose, no exact answer, we just keep on treating based

on patients' respond and symptom of toxicity." (P62)(M)

The interviewee also shared that nurses sometimes are the ones that have the least communication with pharmacists in terms of how to use the medications/injections of the psychotropic medications.

"They are all professional already, they do not need us to show them how to use..nurses are the one that did not ask us anything..most of the time..(laughing)" (P21)(M)

Another interviewee shared one of the communications that she encountered was the doctor asking her to check the patient's previous medications because that patient being admitted to ward at that time. Other interviewees just encounter doctor asking them about the medications related questions in inpatient pharmacy department rather than outpatient pharmacy department

"There have been one doctor asking me that time, at ward, yeah, psychiatric doctor, he ask me to check patient's previous medications." (P29)(F)

"Our services, doctor did not ask us so many questions. Just asking about the medications' quota and availability....."(P31)(F)

"Let's say if non-psychotropic medications are controlled items at HTAA, but the medications are an old medication of the patients from other hospitals, so we will query back to the doctor to double confirm, so in that sense for medication history and others, we only involve in this kind of situations only." (P31)(F)

".....yeah.. if talking about intervoention,after that they ask us is there any alternatives medications for this patients....." (P32)(F)

3.3 The need for a multidisciplinary approach

The multidisciplinary approach means that one patient got a treatments from a multiple health professionals from several disciplines. One interviewee shared there is a multidiscipline service in her Klinik Kesehatan (KK).

"A counsellor from KBKK will come to KK UTC and the counsellor will see mental health patients at KK UTC. But the counsellor will just give counselling, that mental health patients still need to go to HTAA to get the medications. ..." (P5)(F)

Interviewee P5 also added that she believes that a multidisciplinary approach could give a lot of benefit to the patients and also to us.

"Not sure if we can do this services or not. But from my

own knowledge, this mental health services can be like 2 in 1 services. For example, methadone clinic, sometime methadone patients also a psychiatry patients. So we can do the counselling during methadone clinic. Another example like if that patient attend 'Klinik Berhenti Merokok'(KBM), and he is also a mental health patient, so we can dispensed and counsel at the same time. If the patients are also diabetes patients, haa then we can do another 2 in 1 counselling." (P5)(F)

One participant suggested the collaboration between pharmacists, other healthcare workers, and mental health patients should not be limited only to the treatment part, but also other activities that can heal our minds or doing charity work together. Agree on the establishment of MTAC Psychiatry but still need to look at the rapport from a doctor.

"All the patients actually have their own talents, some of them knew how to sew, and she sell the things that she sew. Knitting, and dancing to Zumba... and everyone is joining their activity. They welcome anybody to join them. Some of the patients still looks not okay, but some of them looks okay. I also not sure. Maybe the one that stable did the activity. For MTAC, if you want to do it, better take the stable one, depends on the one that doctor will refer, if we really want to do the MTAC, must look at the rapport from the doctor." (P10)(F)

According to one interviewee, a specialised doctor had previously asked for inter-collaborations such as MTAC in his hospital; therefore, it is hoped that a psychiatrist expert would also request MTAC Psychiatry.

"Previously, MTAC-MTAC that being developed here are being requested by their own respective specialist doctor, for example, diabetes, respiratory disease, INR clinic and warfarin clinic. So, they are all being requested. They are necessary to have the interventions from pharmacist for their patients. But for psychiatry patients, we still do not have the request yet. Hopefully soon." (P61)(M)

4. Challenges and barriers

There are also some subthemes of challenges and barriers that emerged. 5 subthemes can be derived from these themes which are staff shortage, lack of awareness and recognition for pharmacists, limited resources, time and budget, unclear role of pharmacy, and stigma.

4.1 Staff shortage

The interviewees consistently highlighted the shortage of pharmacists, indicating the seriousness of the staffing issue. Almost every group mentioned these challenges.

"We do not have enough staffs actually (chuckle)"(P3)(F)

"If looking at the workload now, we should add on more staff (laughing)"(P3)(F)

"There are a lot of things need to be taken care of. Because you see, if 1 pharmacist can handle maximum 2 type of MTAC. Maximum. Actually normally one MTAC per 1 pharmacist. That's why it is already more than capacity. Like I said, all the reports and times that needed to talk with patient. The time is not really enough. A lot of workload. With your actual work to dispense some more.." (P1)(M)

"The problem with KKM is when we added new staff, we have to add also more services. Haaaa..the reason we add more staff is to reduce workload, so if they as me to add more services also, it is still the same thing."(P7)(M)

4.2 Lack of awareness and recognitions for pharmacists

Some of the interviewees mentioned that pharmacists still lack of awareness about mental health patients. All the terms used by psychiatry doctor looks unfamiliar.

"Maybe there are some terms that being used is not really familiar and not enough exposure, knowledge about mental health...."(P3)(F)

"...maybe lack of knowledge, because we are not that exposed with mental health patient" (P11)(F)

One participant mentioned that one of the reason why a lot of pharmacists did not want to explore new services and become specialist in that new field because they felt not motivated to do their MTAC happily and enthusiastically.

"Our MTAC service should have something like an incentive when we have to be the charge of it. Truthfully (everybody laughing) so, if there is an incentive, everybody wants to do it. Right? Like example must have some certificate to show that this pharmacist specifically well trained..like 'Post-Basic'. Like if we have Post-Basic we will get money, like special allowance? Haa allowance.. so even if our workload increases, but then the salary still the same, why should we increase the workload? So if we have something like post basic, then we have to do more work, but at least got additional allowance. Haa" (P7)(M)

"..there is no post-basic for pharmacists at all. Even Assistant pharmacists have the post-basic....."(p7)(M)

4.3 Limited Resources, Time & budget

Stable human resources, enough time, and a budget are the most important components in every working organization to ensure the efficiency and productivity of the job.

Hospital policies or SOPs must be clear to be the resources for pharmacists to do their job efficiently while handling mental health patients.

"If outpatient here, there is no special SOP when handling mental health patients. Everything is just based on our kindness and judgment. If we see some aggressive patients disturb other patients also, so we have to give their medications first." (P61)(M)

"I think we must have one guideline because if we want to dispense, actually we worried a lot. First, we feel like we are invading their privacy, secondly, being judgemental just like I said just now. So, when we dispense and want to tell them the indications for each of their medications, we agree there must have a guideline for this matter." (P61)(M)

Another SOP that is always being mentioned by interviewees is all dangerous drugs classification (DD) must be recorded in and out. That is the reason why the waiting for them to get the medications is sometimes very long.

"....The waiting time for mental health patients, always longer than other patients because most of their medications involved dangerous drug(DD), so the process to bring out DD must always be recorded, so it takes time." (P61)(M)

The participants also showed concerns about if there is an integrated module for future MTAC programs, there will be limited access to patients' file

"Another thing is if we do want to use the current integrated module for MTAC implementations, between prescriber and pharmacy, before this we can see all the patients' notes, but now we cannot anymore. So it is privacy. they deny all access toward mental health patients." (P61)(M)

When this access is denied, pharmacists cannot see their progressions while taking the medications. Other than that, They are talking about limited time spent with patients either while dispensing the medications or even in a counselling room doing the existing MTAC.

"I was in MTAC DM right, I can only just see on several patient in one day. One patients already take up half an hour. So one day up to 4 patients only. Clinic of course got a lot of patients." (P62)(M)

It was based on some of the participants' experiences while dispensing medications to mental health patients was not getting enough interactions with them. .

"Patient psychiatric who did a suicide attempt... but when it times for us to counsel or getting the history taking and everything, we are not directly interact with patient. So always with their caretaker. Patient doesn't really talk with us...." (P4)(F)

Different environments, such as hospitals and Klinik Kesihatan, also differ in certain ways, such as workload, patient volume, and the absence of specialised psychiatry in the Klinik Kesihatan setting.

"If want to compare between KK setting and hospital setting, of course there is difference. Hospital has more patients and everything than Klinik Kesihatan. Same with our experience also....." (P15)(F)

4.4 Unclear role of pharmacists

One person brought up the pharmacist's lack of participation in the patient's care.

"...we don't really have much involvement in patients' treatment. Unless there is a drug-drug interaction or patient complaint, ' I just start this medication, but why it happen like this'. Then we will check...." (P1)(M)

"Haaa..is it only about adherence? If adherence maybe at the counter also we can see. I don't know, its not clear the role." (P58)(F)

4.5 Stigma

One of the interviewees mentioned that they try not to be as stigmatized as possible by being not judgemental toward mental health patients.

"We do not want to be judgemental towards them. If that patient want to tell us and share their story to us or even that patient does not want to tell me anything, that's okay. We also do not want to ask more than that about their conditions" (P63)(M)

"For me, stigma sometimes always there, because when talking with them, I don't really believe them 100%. They look okay but I don't know."

The participants also mentioned being afraid of getting into patients' privacy too much or exposing

them as mental illness patients as it also disturbs their privacy.

"If we want to dispense their medications, what is the things that we can tell to them? Because we afraid as whatever we said during dispensing will invading their privacy and confidentiality" (P61)(M)

Patients also sometimes have their own level of stigma towards themselves

"....Then we know certain patients have their own stigma. Sometimes when we told them, they looks okay, but sometimes they are not okay....." (P61)(M)

5. Training needs for pharmacists

The participants showed us that training among pharmacists is very well much needed to everyone. One of them tell us how MTAC training usually takes place.

"When we get trained, we must also have a preceptor. So basically preceptor is like a master for everyone. Other states also same this, for example hepatitis B, we will be trained at Hospital Selayang, for 2 weeks. So if psychiatry, if you want to have the clinical part, have to train at the hospital that specializes first, here in Malaysia, we have to find somehow. We have to train first, then that person will go to clinical and train everybody else...." (P18)(F)

"....of course need some kind of training like full courses of learning and also attachment/tagging and not only with doctors, but tagging with other healthcare workers too, nurses, MA...." (P49)(F)

Another participants elaborated again the time needed to have the MTAC training is quite long actually to be well certified

"MTAC now got 2 phase. Phase 1, 2 weeks training plus with 6 months in total. Not sure if eco training is just 2 weeks also.." (P23)(F)

One participant said that training to interact with mental health patients is also important.

"Our way to... Interact. Our way of responding to patients' complaints towards us or anyone, it is important. We cannot simply ignored." (P23)(F)

Many participants expressed what kind of training they want to get to learn more about mental illness disease. They were asking a well-rounded kind of training to handle mental health patients.

"...prefer something like courses with hands on training. 1 day courses but still very interactive." (P31)(F)

"The other day, I get the resources on how deal if patients attack us...." (P29)(F)

"..Need to learn on how to communicate efficiently. We learn On how to be assertive in a way. Learn what is the coping mechanism and its example....." (P31)(F)

"....tagging, tagging at the place that already establish like psychiatry clinic, because when we want to set up MTAC that have no guideline at all, we have to bring the established one and follow them." (P56)(M)

"I think we better have a courses than theory, but better if we do the technical and practical part..." (P53)(M)

Another participant showed concerns if we get the training, we must make sure that the service is established first.

"If in terms of training... of course we can go to training, but we have to see first where is the place that it should be practice. Sometime when we already become specialist in certain field, then the facilities that we work suddenly not give that services." (P41)(M)

6. Improvement on the role of pharmacists and future role

One of many things to be improved in the future is the guidelines and SOP suitable for pharmacists to give the best services to mental health patients. A participant expressed that the absence of standard operating procedures and guidelines for dispensing medications at the counter causes pharmacists to feel uncertain and uneasy about doing so.

"haa..there is no SOP, ok if patient rude, at least we can tell them, okay puan, if puan still act like this, we have to call our guard. For example, have this kind of sop, if there is patient who act aggressive, we can tell them, puan, puan is now disturbing my work as government worker, so if puan still insists and being stubborn like this, we will call the guard. Atleast if like this happen again, at least at that time we know what to do, but right now? Right now if anything happens, haaa we are the one become stressed, sometime leave the dispensing counter for a while, went inside and screaming because become too mad already." (P18)(F)

In the future, pharmacists will also need to play a bigger role in psychiatry medications.

"..Have to be more involved. I feel if want to refer patients to MTAC, need to be more involved and training, with the medications, interactions among doctor with patients, we have to be tagging with them. If only at outpatient, just accept the prescriptions, I think we just dispensed the medication just like we dispensed other medications, we

do not even know about the mental illness diseases and the indications for every patients..." (P28)(F)

"We should join the first aid programe on Psychology first aid courses. haa..because sometime they ask us to join, they do a program, but at that time was during flood. We listen to the victims of flood, but that time I just join with the counsellor here, not with other pharmacists" (P33)(F)

"I mean, all of us need to be involved, integrated, I do have an experience before this when I did a group counselling with the counsellor, at that time me, counsellor and patients. So we will discuss, either everything is okay or not. So we know the progression of the patients, so we as a pharmacist also can take part, medication okay or not, so at least there will be the positive outcomes." (P53)(M)

The interviewee also highlighted the benefits of establishing a dedicated MTAC Psychiatry at local health care, particularly at the hospital and Klinik Kesihatan:

"If the dispensing part, counselling part, is done at the clinic done by Pharmacist MTAC, this can reduce the congestions that always happen at the pharmacy counter. Usually, if there is delay, the waiting time also increases. We do have our own KPI on waiting time part." (P31)(F)

In the future, one participant also showed some interest in getting better skills communication to deal with mental health patients

"maybe we will have different approach, counselling technique and also communication skills are very important element in terms of pharmacist, another things mental health patients usually a long term one, so every patient has their own approach, not everybody is one for all or all for one, the approach must be individualized." (P53)(M)

Discussion

This qualitative study investigated the perspectives and experiences of pharmacists from different settings regarding mental health services in pharmacy services. During the interview, 6 main themes were found out. Most participants talked about pharmacists' limited role in mental health care, the lack of pharmacists-patient interactions, the importance of collaborations with other healthcare workers, and the training needs for pharmacists in mental health care.

The first theme is about the role of pharmacy in mental health care. A lot of interviewees mentioned

that the role of the pharmacy is only to dispense the medications at the outpatient clinic counter and make sure mental health patients comply with their medications. These specialised chemists' roles at community mental health facilities have been described in the past as involving medication dispensing and education, as well as collaborating with doctors and nurses to optimise drug therapy.

Other than that, they also mentioned that just a few mental health patients did ask them about the side of medications they are taking. Consistently, from another study, also demonstrated expertise in classic pharmacists' tasks, such as information provision, in line with earlier findings, preparing, distributing, and teaching patients about the proper and safe use of the medication (Mohiuddin et al., 2019). The participants said that ensuring compliance is always pharmacists' main duty in any setting. Ensuring compliance is important for mental health patients to prevent them from getting relapsed state and to make patients have a better quality of life. In addition, studies have shown that pharmacist-led initiatives, which have mostly centred on teaching and supervision, are successful in enhancing antidepressant drug adherence (Al-Jumah et al., 2012).

Another subthemes for the first theme is to ensure the correct medication and dose when dispensing. This is to prevent any medication error occur. The last subtheme is pharmacists are seen only to counsel patients about the side effects of medication even though most of them claim that it is also very rare for patients to talk with them first about the side effects of medication, but it still happens from time to time. Through the provision of pharmacological care interventions, pharmacists can also actively contribute to the field of mental health treatment (Mohammed et al., 2016). Medication review services, like the Home Medicines Review program in Australia, involve pharmacist-led medication reviews in conjunction with general practitioners and offer another way for pharmacists to contribute to multidisciplinary healthcare, including mental healthcare. Pharmaceutical care interventions can include these types of services (Chen et al., 2016).

This led to theme number 2, pharmacist-patient interactions. Most of the participants claimed that the only place they try to communicate with mental health patients is at the dispensing counter at the outpatient clinic, the topic conversations are also

very short and pharmacists only say what kind of medication they will get at that time. However, it is still a problem with the terms used to them while dispensing the medication to them because pharmacists try not be judgemental and take care of their privacy. The pharmacists always encounter most of mental health patients are rude and quite demanding. These mental health patients become more irritated because the waiting time at the counter is taking so long. However, most of the pharmacists also emphasized that they need training for them to communicate better with mental health patients. Effective counselling sessions can result from improved communication, and pharmacists are required to employ effective counselling techniques, such as providing patients and carers with verbal and written information (Chen et al., 2012). Finding from Abousheishaa et al., 2022, showed however, that the majority of pharmacists did not give the patients' or carers' educational or adherence-supporting resources. Maybe as a result of the chemists' lack of access to trustworthy information sources or the absence of patient demand, which have both been widely mentioned as obstacles to the delivery of pharmaceutical treatment in this study.

The third theme is about the interprofessional collaborations between pharmacists and other healthcare workers. From the interviews, the participants showed interests and asking the cooperations from the doctors and other healthcare workers to treat mental health worker. If MTAC is being established, pharmacists in the interviews give an opinion about the clear role of them and between doctors. This to prevent any redundant job scope and make sure all the pieces of information we give to patients is align with one another. The second subtheme from this theme is the communication between pharmacists and other healthcare workers. The participants shared that doctors only communicate with pharmacists only asking about the availability of the medications, the alternatives of the medications, drug-drug interactions, history of patients' previous medications, and some of them asking about side effects of the medications. Based on other studies, they might think that pharmacists' job scope is only limited to preparing and dispensing medications (Aldhafeeri et al., 2022). There is study that tell us from a point of view other healthcare workers, that a lack of cooperation between doctors and pharmacists, pointing out the dearth of pharmacists

at hospital wards thus leads to a significant gap in their interactions (Kempen et al., 2020). Most of the participants agree on the multidisciplinary approach for mental health patients that involves pharmacists. Other study also shows the same result as pharmacists were highly encouraged to provide pharmaceutical services to patients directly instead of just focusing on medications administrations records to ensure maximum patient care and prevent any drug-related problems (Mohiuddin et al., 2019)

The fourth themes from these interviews is the challenges and barriers among pharmacist in mental health services. The first subthemes, that is very common across all the focus group discussions is shortage of staff. This issue has been a challenge for a long time and to a lot of many departments in hospitals or clinics. Increasing workload also leads to a shortage of staff. The policy in KKM somehow stated that if want to add more staff to certain departments, they must provide new services. The participants suggest to add staff so that MTAC of psychiatry could be established and this is quite frustrating situations among pharmacists as they need more staffs to reduce the workload not the other way around. The second subthemes are the lack of awareness among pharmacists about mental health patients. Most pharmacists are not really exposed much to mental health patients and mostly they only encounter between themselves only at the outpatient clinic. All the awareness program about mental health in a hospital or clinic, they rarely invite pharmacist to join them together. Mostly the activities or the charity activities are only among the patients, doctor, nurse and MA. This was supported by other study showed that pharmacists lack the requisite training to practise mental health, maybe as a result of pharmacy universities' inability to offer such instruction. Therapeutics is the foundation of psychiatry education, and internships in the field are scarce, particularly for pharmacists (Aldhafeeri et al., 2022).

The third subthemes are the lack of resources, time and space to do the mental health pharmacy services. Lack of SOPs and guideline about handling mental health patients one of the most significant barriers seen among pharmacists. Even though the participants show some positive attitude to provide pharmacy services towards mental health patients, but they still feel reluctant as they felt they are still lack of knowledge to manage them. They did not know how to respond if patient shows

unpredictable behaviour in front of the pharmacy counter. This is the same result on study by Soliman et al., (2020), pharmacists showed more negative views towards treating patients with depression than physical disorders, despite their confidence in many areas of working with patients who had depression. The participants also explained that pharmacists only can access up to their medication's history and current medications. Patient history and other cases notes are being denied. This will lead to pharmacists cannot even see their progressions. Pharmacists only can communicate mostly at the outpatient clinic counter during dispensing the medication, because there is KPI of waiting time, the participants claimed that they do not have enough time to ask patients more questions. Another subtheme is the unclear role of pharmacists if MTAC psychiatry being developed. The participants hope there will be no redundant in terms of our role as a pharmacist to doctors' role. The last subthemes are stigma. One of the participants showed that he tries hard not to be judgemental as mental health patients also deserved some privacy and he felt no stigma at all. Most of the participants showed not really have a stigma or not, but they have to control themselves especially when the patients might be aggressive or difficult to handle.

The fifth themes from these interviews are training needs. Most of the participants agreed that all pharmacists need training on how to deal mental health patients. In order for pharmacists to help the management of mental health issues and crises within the parameters of their area of practice, they must receive adequate training. In addition, well-trained pharmacists can help lessen the stigma associated with mental illness and increase access to and knowledge of mental health treatments, all of which can be obstacles to receiving mental healthcare (El-Den et al., 2021). They give several suggestions on what kind of training that they should have especially on how to communicate with mental health patients. The training should be hands on, or one day courses of continuous pharmacy educations (CPE) and interactive sessions. Some of the participants suggests to directly tagging with psychiatry doctor in ward or clinic because they believe face-to-face training is more effective. The training also should include the general guideline about the mental illness treatment and the standardised SOPs on how to handle them. This was supported by other study in Saudi Arabia, efforts are underway to provide specific training

programmes for each sector of the mental health services industry as well as to standardise and grow mental health services throughout the country (Koenig et al., 2014). One of the participants shared on the latest guideline of standard MTAC training from KKM. The training should be 2 weeks at other facilities with the preceptor there, then another 6 weeks to apply what have been trained and after that have to train another pharmacist also. This should be applied to if want to establish the MTAC in future. For example, one training program called Mental Health First Aid (MHFA) has been used worldwide and gained recognition as a pertinent and essential for all healthcare workers when dealing with mental health patient. Evidence of MHFA training in pharmacy extends back to 2011, when self-reported knowledge, confidence, attitudes, and behaviours among MHFA-trained pharmacy students increased in a controlled trial on Australian pharmacy students (O'Reilly et al., 2011).

The last theme found from this study is the improvement role of pharmacists in the future. Most of the participants hope that in the future there will be a standardised guideline and SOPs for them to handle mental health patients. Other than that, they hope that they can be more involved in mental health patients' treatment together with other healthcare workers. This is the same finding with another study that recommends that to strengthen the bonds between HCPs and pharmacists and address issues stemming from inadequate communication between the two, pharmacists should engage in more direct and team-based patient care (Aldhafeeri et al., 2022). Based on the current situation in the pharmacy at the outpatient clinic, the number of patients always increasing and always affects the KPI of waiting time for patients to receive their medications. One of the participants said that if there is MTAC Psychiatry, it will reduce the congestion of patients at the pharmacy counter because their prescriptions will be dispensed during MTAC sessions. There will be many future roles of pharmacists in Malaysia that can be adapted from other countries' practices. For example, the results of a recent systematic review of community pharmacist-led depression screening for adults indicated that more thorough, high-calibre research was required to show the cost-effectiveness and clinical implications of this approach, even though pharmacists could identify people living with undiagnosed depression using screening tools (Miller et al., 2020). Another example in Nova Scotia,

Canada, The Bloom Program was created to improve the way chemists treat patients who have a personal history of addiction and mental illness with the improvement of 78% medication issues. A 27-month demonstration project was used to assess the Bloom Program, demonstrating the significant responsibilities that pharmacists may play in pharmaceutical efficiency, instruction, and assistance in navigating the healthcare system (Murphy et al., 2019).

Conclusion

This qualitative study offers the opinions of the pharmacists in the Kuantan and Pekan, Pahang area, about their perspectives on current mental health services in their facilities, their own experience and toward mental health patients, psychiatry doctors, and other healthcare workers. This study shows that pharmacists can always show various potentials and be the most important components in our healthcare systems, either at the hospital level or primary care. It has been proposed that specialty counters, private counselling rooms, and MTAC Psychiatry will enhance mental health services in every hospital and primary care setting. In the end, it was determined that ongoing assistance from other healthcare professionals was required for a successful procedure. To enable pharmacists to be integrated into mental healthcare, further research is needed to show the therapeutic results and financial viability of these roles teams frequently in a lot of practice environments. Pharmacists are dedicated to developing the best plans to give patients the best care possible despite the obstacles. The early descriptions of pharmacists were always about optimizing the use of drugs and providing education about medicines. As a result, mental health pharmacists are now essential members of the clinical management teams in inpatient and outpatient settings in the 21st century.

This study only limited at Kuantan & Pekan, Pahang area. There might be differences or additional perspectives and opinions from pharmacists at other regions, urban area or rural area. Despite that this study consisted quite large samples and the saturations data is quite saturated from this study.

Authors contributions

The corresponding authors NA and SZ provided the main objectives of this study and the methodology framework for the research project. She and her other co-authors (KAAR, CJY, NFAG, YI and ARR) performed the focus study group interview with the participants at respective allocated locations. The author NA transcribed and performed the data analysis, and her co-author SZ validated them. The author NA was writing the original draft preparation, SZ; supervised and reviewed the draft. All other co-authors listed proofread the draft. SZ and NSAR; was doing the project administration and funding acquisition. All authors have read and agreed to the published version of the manuscript."

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Ethical approval statement

This study was approved under the Medical Research and Ethics Committee (MREC) of Ministry of Health (MOH) Malaysia, with the identification number of: NMRR ID-23-01687-IE3.

Informed consent statement

Informed consent was obtained from all subjects involved in the study.

Conflict of interest

The main author NA and other investigators declares no conflict of interest throughout the study

Declaration of generative AI and AI-assisted technologies in the writing process

During the preparation of this work, the author declared the usage of AI which is ChatGPT. It is used to improve readability and language. After

using the ChatGPT, NA reviewed and edited the content as needed and took full responsibility for the content of the publication.

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Appendix A

Table A1: FGD topic guide (overview)

<p>Welcoming speech from the research interviewer with her supervisor and co-supervisor (if there is any).</p> <p>“Assalamualaikum and hello to everyone. My name is as your interviewer today. Here is my supervisor for this research Dr..... thank you again for participating in this interview. Every respond and answers, we are really appreciating that.”</p>
<p>Overview for the overall topic of the interview</p> <p>Our topic is about implementing pharmacy services in mental health services.</p> <p>The result from this interview will be one of the sources of information regarding perspectives of pharmacists in mental health pharmacy services.</p> <p>Thank you for willing to participate in this interview and sharing some opinions about this topic.</p>
<p>The ground rules of this focus group and assurance of confidentiality</p> <p>There are no right or wrong answers.</p> <p>Only differing points of views.</p> <p>We are tape recording and one person speaking at a time. All the recordings will not to be share with any organizations or anyone as this is solely for research purpose only.</p> <p>We are on a first name basis.</p> <p>You do not need to agree with others, but you must listen respectfully as others share their views.</p> <p>My role as an interviewer will be to guide the discussion.</p> <p>So, here are the questions (Table A2):</p>

Table A2: FGD topic guide (main questions)

<p>Current Roles in mental health services in your place:</p> <p>What do you consider the current role of pharmacist in mental health care?</p> <p>Tell me about your experiences with mental health patients. Tell me more about your interactions and relationship with the patients.</p>
<p>Collaborations within HCP:</p> <p>In your opinion, what say you on the statement that pharmacists also should be included in the mental health care besides psychiatrists?</p> <p>What do you believe to be the key benefits of having a pharmacist in a multidisciplinary mental health team?</p>
<p>Barriers & Facilitators to the provision of care:</p> <p>What do you see as the facilitators of mental health pharmacy services?</p> <p>What do you see as barriers of mental health pharmacy services? In your opinion, what are the reason/s for pharmacist not having a prominent role in mental health primary care?</p>
<p>Perceptions of what mental health pharmacy services can be expected to provide for the patient:</p> <p>What mental health pharmacy services do you expect to be provided to the patients in your facilities?</p> <p>What ideas do you have for improvement of (mental health pharmacy) services provided in your facilities?</p>

References: (McMillan *et al.*, 2020; Morris, Wong and McKinlay, 2021; Adam and Keers, 2022; Crespo-Gonzalez *et al.*, 2022)