Power and medical knowledge: a qualitative study of attitudes regarding co-occurring depression and chronic diseases in Malawi

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Research article

Keywords: Integrated care, Depression, Non-communicable Diseases, Low and Middle-income Countries, International Health, Malawi, Patient-provider Communication

Posted Date: October 24th, 2019

DOI: https://doi.org/10.21203/rs.2.16386/v1

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Version of Record: A version of this preprint was published at BMC Psychiatry on May 19th, 2020. See the published version at https://doi.org/10.1186/s12888-020-02657-2.
Abstract

Background: Globally, depression is a leading cause of morbidity and mortality particularly in Low and Middle-Income Countries (LMICs). The burden of non-communicable diseases (NCDs) are also increasing in LMICs, the conditions frequently co-occur and exacerbate NCD outcomes. Depression interventions alone are not effective at improving NCD outcomes resulting in wide-reaching calls for integrated services. Integrated services are in a nascent phase in LMICs in general and in Malawi in particular. This manuscript serves to clarify Malawian patients’ and providers’ attitudes towards depression integration into routine NCD services.

Methods: Ten District Hospitals were selected for data collection. Thirty-nine participants were interviewed. An iterative approach to concept-driven coding was applied to facilitate the formation of similarities, differences, and connections between codes.

Results: While patients infrequently described moderate depression as a medical condition, and held various attitudes regarding treatments, they agreed on the appropriateness of integrated services. Patients’ respect for their providers led them to support integration. Patients discussed how medical knowledge is highly regarded, revealing a power dynamic with their providers. Both patients and providers further acknowledged the power of a provider’s communication in shaping a patient’s feelings about depression.

Conclusions: Training and interventions that facilitate providers abilities to effectively transfer their medical knowledge, use strategies to channel their power, and engage patients in a collaborative relationship will be key to successfully integrating depression treatment into Malawian NCD clinics and other integrative care settings in the region. Trial Registration: This work served as part of formative data collection for National Institute of Mental Health (NIMH) Trail NCT03711786 registered on 10th October, 2018

Background

Globally, depression is a leading cause of morbidity and mortality (Demyttenaere, 2003; Lopez et al., 2006; Kessler et al., 2009). In low and middle-income countries (LMICs), mental health disorders account for almost the same disease burden as HIV/AIDS, 11.1% and 13% respectively (Patel, 2007; Baxter et al., 2013). LMICs in general, and Malawi in particular are undergoing epidemiologic transitions away from infectious diseases and towards chronic non-communicable diseases (NCDs) (Soliman and Juma, 2008; Msyamboza et al., 2011; Payne, Mkandawire and Kohler, 2013). Co-occurrence is frequent due to the high burden of depression and NCDs, and is associated with worse NCD outcomes (Moussavi et al., 2007).

Due to the complexities of co-occurrence, depression interventions alone have not been effective at improving NCD outcomes, increasing calls for integrated services (Berkman et al., 2003; Katon et al., 2004, 2010; Ell et al., 2010). As NCD care systems in LMICs expand, integrated services may facilitate successful treatment of patients with co-occurring NCDs and depression (Prince et al., 2007; Raviola,
Integrated services are new to Malawi, and a lack of understanding on how to implement such services may stymie improvements in clinical outcomes. Therefore, clarifying patients’ and providers’ attitudes towards depression in general, and the implementation of integrated services in particular, is required.

This qualitative study served as formative work for a trial of implementation strategies to identify effective means of integrating depression services (i.e., screening, psychosocial counseling, and antidepressant medication management) into NCD services in Malawi. To guide this effort, we conducted in-depth qualitative interviews with NCD patients and providers to answer the research question: what are Malawian NCD patient and provider attitudes towards integrated care? The primary objective was to answer this question using the qualitative techniques described in the section below.

**Methods**

*Sampling:*

Ten District Hospitals in Malawi’s Central Region (urban and rural settings) were selected based on proximity to partner organizations. Thirty-nine participants (~2 patients and 2 providers from each hospital) were approached for in-depth interviews. Most NCD clinics were managed by an NCD coordinator, a practitioner with responsibilities like reporting and staff scheduling, as well as multiple NCD practitioners; all of whom provide direct NCD services. We interviewed approximately one NCD coordinator and one NCD practitioner from each clinic. In this manuscript, they are jointly referred to as NCD “providers.”

Providers were asked to identify two patients as interview participants. These patients were approached by research staff for informed consent and enrollment.

*Data Collection:*

Semi-structured interview guides were developed in partnership with local implementing partners. The interview guides first asked for patients’ reactions to a series of vignettes rather than asking patients directly about their own experiences with depression. The vignettes depicted individuals with depressive symptoms and asked patients about their attitudes regarding the individuals’ symptoms, causes of their symptoms, and treatments. Patients were then asked about their own experiences with depression before being given a description of psychosocial counseling and antidepressant medication services, both of which are relatively novel treatments in Malawi. The patient interview guide was written in English and translated into Chichewa.

The provider interview guide focused on their experiences with suspected co-morbid depression patients and attitudes towards integrated services. The provider interviews, conducted in both English and Chichewa, also focused on barriers and facilitators to integration, the topic of a forthcoming manuscript.
Due to the varied focus of the provider interviews and their medical education, which focused on depression symptoms and treatment, the majority of study data come from the patient interviews.

Two female Malawian post-secondary research assistants fluent in Chichewa and English completed qualitative data collection training and interviewed participants from June–August 2018 (authors AT and MM). The data collectors had no prior relationship to the participants and, as part of the informed consent process, introduced the aims of the study prior to beginning each interview. All interviews were conducted in private rooms within the NCD clinics and audio recorded. Interviews conducted in Chichewa were translated and transcribed into English in one-step and were not returned to participants for comment/correction given the logistical inability to reach study participants post-interview.

**Analysis:**

All transcripts were first read to gain familiarity with the data. During the second reading, the first author took notes for each interview and developed initial code categories and questions for the data collectors regarding language and transcription (Sandelowski, 1995). Through a process of concept-driven coding, the first author utilized their reading of the data, depression and implementation science literature, conversations with the research team, and their own experiences to create an initial codebook (Gibbs, 2007). Initial code categories included depression causes, symptoms, treatments, and treatment sources. The first author used Dedoose v8.0.4 for coding and memo-writing, a key analytic tool. Code application categorized and reduced the raw data. Analytic memo-writing facilitated a practical approach that identified similarities, differences, and connections between codes (Saldaña, 2009). Both processes were iterative, allowing for the addition of new codes and memo categories to emerge from the data. Coding matrices produced frequencies for various code categories. The full research team was engaged in ongoing conversation throughout the analysis in order to refine and validate findings.

**Results**

**Final Sample**

One-on-one interviews averaged 50 minutes each and were completed with 39 individuals (Table 1). Interviews were completed with 20 patients (2 from each NCD clinic), and 19 providers (2 from each NCD clinic, with the exception of one clinic where only one provider was interviewed). The authors felt that saturation had been reached at the end of these 39 interviews and thus, participants were interviewed only once.

**Table 1—Participant Sample**

The sections below describe: (1) patient perspectives on the causes, symptoms, and treatments for depression; (2) the appropriateness of integrated services; and (3) the role of the patient-provider power dynamic.
Patient Perspectives on Causes, Symptoms, and Treatments for Depression

Patients agreed upon the causes and symptoms of depression, noting that it is often caused by interpersonal conflict (i.e., arguing with a family member) or worries regarding unemployment and financial strain. Regarding symptoms, patients consistently described depressed individuals as withdrawing from friends and family, developing exacerbated NCD symptoms, and experiencing suicidal ideation. The vast majority used social support (i.e., talking to a depressed individual about their problems to improve their mood) and prayer as helpful strategies for addressing depression, with prayer described as supplemental to social support. While 17 patients mentioned prayer at a Christian church, only 5 described it as a priority over other treatments. For instance, when asked how she would respond if experiencing moderate depressive symptoms, a 35-year-old female hypertension patient noted:

I would go to church and pray even if it were for three days, I would definitely go for all the said three days so that whatever is in my heart, should come to an end.

Social support itself was the most commonly reported treatment for depression symptoms. For instance, a 40-year old male diabetes patient explained the process of treating depression through a supportive group of friends:

I am saying that these [depressed] people, mostly they don’t like to be open to their friends...Among [a group of friends], there can be someone who may have experienced the problem that you are going through and knows how to handle that problem. Such a person may help you to overcome the problem you are going through.

The same participant described a similar process of accessing social support from their partner:

My wife is the person who should be the first to know what I am going through. In families we discuss issues and this helps both of you to be relieved from unhappy situations. So, you can see that if your wife can talk to you like this, chances that you can be depressed can be minimized.

In addition to social support and prayer, 17 patients described the hospital as a source of depression treatment, but only for severely depressed individuals with significant functional impairment. Less than half described medical intervention for treating moderate depression, suggesting the belief that medical intervention is more appropriate in cases of severe depression.

Appropriateness of Receiving Depression Services at an NCD Clinic

Although patients initially stated preferences for social support or prayer to treat depression, when asked about the integration of depression services within NCD clinics, every patient described integration as appropriate. Appropriateness in this context is defined as the perceived fit, relevance, or compatibility of depression screening and treatment in Malawian NCD clinics (Proctor et al., 2010)
During the interview with 35-year-old female hypertension patient that prioritized prayer as a depression treatment, the interviewer discussed psychosocial counseling and asked the patients’ views regarding counseling at their NCD clinic:

Interviewer: Ok, how helpful do you feel it would be if there were someone at a health facility whom you can talk to [about depression]? Participant: It would be helpful because they will be able to disclose all their problems, if that specific person would guide and counsel him on what to do.

When the interviewer described screening and medication, and similarly asked for the patient’s views:

Interviewer: How would you feel if treatment was available for this condition, just like for malaria treatment...how effective could that be? Participant: The medicine would be effective since they will be examined to reach a diagnosis. The reason why people are told to go to a health facility is for them to be examined so that a diagnosis can be ascertained. So it would be nice if that can be endorsed, if medicine would be made available.

Here, the patient stated their initial preference for prayer at a Christian church. Once the interviewer described screening and treatment as a medical process delivered through the NCD clinic, the patient agreed that the services would be appropriate.

After describing the integration of depression screening, psychosocial counseling, and anti-depressant medication within the NCD clinic, other participants who prioritized prayer as a treatment for depression symptoms similarly described appropriateness for integrated services:

It's very difficult to deal with [depression symptoms] because you can go and associate with friends, but when you get back home you’ll still meet the problems. The most important thing that you can do is just to pray.

And later reacting to the idea of depression medication at their NCD clinic:

Interviewer: What if there can be some medications to help someone who is having depression? Participant: When you are thinking a lot on something, that's when you get depression. If there can be some medications for that that's okay. We can all accept it.

A similar trend was noted in patients who valued social support as a primary means of treating depression. When the interviewer introduced screening for co-morbid patients at the NCD clinic, the same 40-year-old male diabetes patient noted:

Interviewer: If there were a test that diagnosed a person like this as “being depressed” how do you think they would feel about it? Participant: They would feel very happy because they would know that there is a way to diagnose their problem and get treatment. You know when a problem is diagnosed, you know there is treatment. So, diagnosis is very important

Similar to patients who prioritized prayer in treating depression symptoms, the patients who prioritized social support, or some combination of the two, all described the integration of screening and treatment at their NCD clinic as appropriate.
While all participants described depression service integration as worthwhile, several expressed conflicting feelings regarding the effectiveness of anti-depressant medication. One 43-year-old female NCD patient first noted their preference for prayer and voiced skepticism regarding medication:

[Treating depression with medication] is not possible...because depressions is something that you create through things that have happened to you, so it is up to you to accept and deal with. However, when asked what she would do if she had depressive symptoms herself, the patient noted a preference for medical intervention in the form of screening:

[I would be] coming to the hospital so that the doctor should test me as if they test sugar or BP... They can identify that the illness is there because of the brain so they tell you what to do so you stop thinking too much.

Despite the patient’s skepticism regarding medication, she was open to seeking depression care from her NCD provider. This openness reflects a flexibility in NCD patient attitudes given every patient described depression services as appropriate, despite initially voicing a preference for other treatment options. This flexibility appears grounded in a patient-provider power dynamic, rooted in patients' respect for providers' medical knowledge.

Respecting Medical Knowledge—The Patient-Provider Power Dynamic

When the interviewers explained the process of screening and treatment at the NCD clinic, depression became a topic of medical knowledge. Patients discussed a great respect for medical knowledge. For instance, a 60-year-old female hypertension patient highlighted the difference between the same dietary recommendations offered by community members and a medical provider:

There is a difference, [community members] tell us that “do not eat this or do not eat this,” and we do not listen. But, when a doctor tells us that “if you eat this you are putting your life at risk,” we listen. Patients also related a respect for medical knowledge when given hypothetical scenarios described in depression vignettes. A 59-year-old hypertension patient described a possible interaction with her husband, pretending that he is the man in the vignette with depression:

He will understand the counselling from a health worker because he is afraid of the health workers. But for me to tell my husband about counseling, he will say, “What do you know!” but he is afraid of the health workers. “These people know something, they are well trained” and so he just listens attentively, and he may also just take medications.

The notion of accepting medical recommendations out of fear introduces the issue of power. Describing a patient-provider interaction as charged with fear acknowledges the provider’s power to shape how a patient feels. A 48-year-old male NCD patient discussed this dynamic:
If you look at someone who is the health worker and is putting on that uniform it adds some grain of believability unlike someone that is from the community where we live. We believe that the health worker will answer most of our problems...The other reason why a health worker is more believable than someone from the community is because the health worker had to go to school to do what he or she does unlike member of the community whose education will always be questionable...The moment the patient sees the health worker, psychologically he or she feels they have been helped.

The importance of medical credibility and power became more pronounced when interviewers probed how a patient might react when receiving a depression diagnosis. Given depression services would be new to NCD clinics, and moderate depression was not viewed as a medical condition, the ability to transfer medical knowledge to the patient becomes critical. Patients cautioned that the initial depression diagnosis could be jarring “because we have never thought of it before, that sadness can also be a disease.” The way in which a provider explains depression as a treatable medical condition, could potentially exacerbate mental health issues, or provide comfort and a clear path forward. A 49-year-old female hypertension patient discussed the importance of patient education:

She can be stressed out. Upon hearing that she has been diagnosed with a medical condition she will feel bad. She will be thinking that the medical condition is permanent. There are two possibilities. The first one you may go to the hospital and the clinician will tell you “sorry mum we have found you with a wound. However, the good news is that the wound will get healed soon.” Or you may go to the hospital and be told that you have been diagnosed with a disease that will take almost forever. The second one could leave you stressed out.

A 52-year-old male diabetes patient described the same issue and added importance to the way a provider speaks to a patient.

For someone who has come from the village to understand the diagnosis, it will get him even more depressed because he will say “is being depressed even a disease?” It also depends on the person conducting the test. They can either make the person more depressed or they can help end the depression the person already has. Explain to them properly, in a slow, soft tone, tell them that you have been found with this disease and these are the causes, explain to them properly and counsel them. Like patients, providers recognized the need to handle co-morbid cases with care. When asked how treating patients with depression symptoms differed from other NCD patients, a 32-year-old male practitioner noted their preference for spending additional time to resolve the “root cause of the worrying.”

I feel counselling is the best [for patients with depression symptoms] because you open up the patient. They are supposed to voice out the root cause of their worrying. With counselling, the patient will be able to voice out things they were unable to tell anyone else. There is a tendency of the patients being open and free with the doctors...and you use the trust the patient has in you and find the root cause of the worrying. From what they tell you, you can guide them on what they can do and then monitor them each step to see if they agree. In addition to providing extra time, the way providers speak to patients was also discussed. A 38-year-old female practitioner described a man with severe diabetes and hypertension whom she suspected of also
suffering from depression symptoms:

[Treatment was] different because for this person, you need to treat them and handle them like a baby. If you don’t, you can easily lose the person [and exacerbated their depression symptoms]...So, compared to someone who has just come for a refill, they differ because for this one, you are supposed to handle them [with more care].

The recognition that patients dealing with depression, if not “handled like a baby,” could experience deeper depression further highlights the patient-provider power dynamic in this context.

Discussion

Overview

The sections below describe: (1) the role of Christianity in Malawi and its overlap with depression; (2) the role of mental health literacy in shaping the patient-provider power dynamic; and (3) means of addressing the patient-provider power dynamic to improve clinical outcomes.

Christianity and Health in Malawi

While the role of religion in depression services was not an a priori focus of this study, the results show an overlap of faith and attitudes towards depression causes and treatments. Research from high-income countries (HICs) highlight Faith Based Organizations (FBOs) as important sources of intervention and referral to mental health services (Taylor et al., 2000). Additionally, recommendations include integrating support for patients’ religious or spiritual beliefs into depression treatment (G. Koenig and Larson, 2001). Integration between health interventions and FBOs have reduced the burden of HIV in Uganda, pointing to the value of sensitivity to patients’ religious views in mental health intervention (Liebowitz, 2002). Potential avenues of integration include intervention design, tailoring, recruitment, and implementation (Liebowitz, 2002).

The Role of the Mental Health Literacy Gap

Participants viewed moderate depression as less of a medical issue, but recognized severe depression as requiring medical intervention. These findings align with other data from the region. In their review of mental health literacy publications from LMICs, Ganasen et al., describe several studies that found participants in LMICs perceived less severe mental illness symptoms as part of normal life experience, resulting in “talking it out” as a common treatment (Ganasen et al., 2008). This idea echoes through our data given the vast majority of participants who described social support as a means of treating depression symptoms. While education on HIV transmission, risk factors, and treatments have been the subject of many peer education, mass media, and school-based interventions in Sub-Saharan Africa, community education efforts regarding common mental illnesses have received less attention (Bertrand
et al., 2005; Ganassen et al., 2008; Paul-Ebhoimhen, Poobalan and van Teijlingen, 2008; Medley et al., 2009). Ganassen et al. (2008) further note that improving mental health literacy among primary health care professionals is imperative to improving mental health literacy in patients (Ganasen et al., 2008). We echo this recommendation as well. Our patient data show similarly limited degrees of recognition for depression as a medical condition. As providers receive training in evidence-based depression screening and treatment, the gap in patient-provider medical knowledge may become more severe given the dearth of public education regarding mental illness, potentially heightening the existing power dynamic. Training providers to not only understand and recognize cases of depression, but also to effectively educate patients on the risk factors, causes, symptoms, and treatments are key to influencing how patients feel about diagnosis and treatment.

Addressing the Patient-Provider Power Dynamic

The unequal distribution of knowledge in medical settings and the patient-provider power dynamic are somewhat universal, our findings further contextualize these phenomena within the Malawian NCD clinical setting (Chapman, 1993; Williams and Harrison, 1999). We found providers heavily shape how patients feel about depression, suggesting the interaction must be handled with care. In their review of World Health Organization (WHO/UNAIDS HIV) policy guidelines, Evans & Ndirangu (2009) noted that patient-provider relationships in hierarchical medical systems give way to a power dynamic where patients feel unable to go against their provider’s advice (Evans and Ndirangu, 2009). Relating their findings to depression services, an unintended consequence of offering depression screening and treatment as part of regular NCD services may be that patients acquiesce to screening without fully understanding what the screening is for.

Aside from providing adequate depression education, the manner in which a provider speaks to a patient was described as critical by the patients and providers in our sample. Current recommendations for treating depression in primary care include patient engagement and education, close follow-up, and a commitment to adjusting treatments or consulting with mental health specialists until depression is improved (Unützer and Park, 2012). Evidence also suggests a better patient-provider relationship is associated with a higher quality of depression care, as well as improved depression outcomes and NCD outcomes (Kaplan, Greenfield and Ware, 1989; Weiss et al., 1997; Meredith et al., 2001).

Current depression treatment guidelines call for providers to closely monitor patients and their responses to depression treatments (Kennedy, 2013). However, in their review of good communication in psychiatric practice, Priebe et al. (2010) note that while most general medical training includes patient communication, more nuanced and careful communication is required for a strong patient-provider relationship in a psychiatric setting (Priebe et al., 2011). Current guidelines also describe identifying markers of response at the earliest stages of treatment as a critical challenge (Kennedy, 2013). However, a patient experiencing complications with treatment, in an unbalanced system of power, may fear that communicating such complications challenges their provider’s medical knowledge. Strategies are
required to mitigate this issue in treating depression in Malawi. While the patient-provider relationship intervention literature is underdeveloped in LMICs, interventions from HICs that focus on increased patient education, longer and more frequent visits, and increased encouragement regarding medication adherence have shown significant increases in anti-depressant adherence (Vergouwen et al., 2003). Patients of a provider who gives clear instructions about the treatment; who relates to patients in an approachable, or supportive manner; who solicits and listens to client's views; and who uses a participatory manner of problem-solving are significantly and positively associated with patient knowledge and satisfaction with anti-depressants (Bultman and Svarstad, 2000). The need to train NCD providers and equip them with strategies to mitigate their position of power is key to the successful integration of evidence-based depression services in Malawian NCD clinics.

Limitations:

These findings should be understood within the context of several limitations. First, participants were interviewed in Chichewa but recordings were translated and transcribed to English in one step due to resource limitations. Further, in an effort to accelerate data preparation, about half of the transcription was completed by research assistants that played no role in data collection. Challenges inherent in translation alone are well documented in qualitative inquiry and both the one-step transcription and multiple transcribers likely take away from the quality of these data (Wong and Poon, 2010). In order to mitigate this, the data collectors listened to each recording and matched it with each translated transcript to ensure accuracy. Additionally, interviews were carried out within district hospitals which may have influenced patients to discuss depression treatment in a medical settings more positively. Traditional means of treatment for mental health are relatively common in Malawi and were rarely found in our data (Maclachlan, Nyirenda and Nyando, 1995). However, patients seek traditional based treatment for many conditions and researchers have consistently called for increasing integrative treatment (Courtright et al., 1994; Brouwer et al., 1998; Zachariah et al., 2002; Simwaka, Peltzer and Maluwa-Banda, 2007). Similar to our recommendations for provider sensitivity to, and inclusion of patients’ Christian faith in medical treatment, the same accommodations should be made for patients’ traditional beliefs.

Conclusions

Our data show that attitudes regarding the treatments for depression varied mostly between preferences for prayer and social support. Additionally, patients believed depression warranted medical treatment for only severe cases. Despite various treatment preferences and the fact that moderate depression was rarely viewed as a medical issue, patients described depression services in NCD settings as appropriate. The patient-provider relationship was discussed as central to a patient’s experience with depression screening and treatment. Patients described how medical knowledge is highly regarded underscoring the importance of provider communication around a depression diagnosis and treatment.

In order for Malawian NCD providers to adequately educate, screen, and treat patients for depression, they will need to address this power imbalance through the use of strategies designed to mitigate their
position and engage patients to form a more collaborative treatment relationship.

**Abbreviations**

LMICs: Low and middle-income countries

NCDs: Non-communicable diseases

NIMH: National institute of mental health

HICs: High-income countries

FBOs: Faith based organizations

WHO: World Health Organization

**Declarations**

**Ethics approval and consent to participate**

- The authors assert that all procedures contributing to this work comply with the ethical standards of the relevant national and institutional committees on human experimentation and with the Helsinki Declaration of 1975, as revised in 2008. The authors assert that all procedures contributing to this work comply with the ethical standards of the relevant national and institutional guides on the care and use of laboratory animals.

- Written informed consent was obtained from all study participants. In instances where participants were illiterate, their thumb prints were obtained along with the signature of a witness attesting that appropriate consent procedures had taken place.

- This study has been approved by the University of North Carolina Biomedical Institutional Review Board Reference ID 250449 and the Malawian National Health Sciences Research Committee—Approval #1925

**Consent for publication**

- Not applicable

**Availability of data and materials**

- The datasets generated and/or analyzed during the current study are not publicly available given their focus on small scale program specific outcomes but are available from the corresponding author on reasonable request.
Competing interests

- The authors declare that they have no competing interests

Funding

- This work was supported by the National Institute of Mental Health (NIMH) (U19MH113202–01).
- The NIMH had no role in the design, methodology, data collection, data analysis/interpretation, or preparation of this manuscript.

Authors’ Contributions

- CA trained data collectors AT and MM and wrote the interview guide alongside VG and CZ, CA also prepared the initial draft of this manuscript and coordinated its multiple iterations and revisions with all co-authors.
- VG, CZ, AT, MM, JM, BG, and BH provided substantial input into the development and multiple iterations of this manuscript.
- BG, BH, and JM provided substantial input to the parent research study for which this manuscript served as formative work.
- All authors have read through and approve the submission of this manuscript in its current form.

Acknowledgements

- The authors would like to acknowledge several organizations for their role in the SHARP Capacity Building Program including: UNC-Project Malawi and the Malawi Ministry of Health and Population, Non-communicable Diseases and Mental Health Clinical Services

Authors’ Information

- Not applicable

Footnotes

- Not applicable

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### Table 1

**Table 1 – Participant Sample**

|        | Patients | Providers |
|--------|----------|-----------|
| Gender |          |           |
| Female | 11       | 3         |
| Male   | 9        | 16        |
| Age    |          |           |
| 25-40  | 5        | 14        |
| 41-50  | 5        | 4         |
| 51-60  | 6        | 1         |
| 61-70  | 4        | -         |