



## Factors affecting the ability of health care providers to detect mental problems at primary health care level: A case of Lusaka Community District Health Centres (LCDHC)

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### Abstract

**Introduction:** Mental health problems are common in our societies and result in impaired functioning, increased need for health care and marked deterioration among the different domains of quality of life. In Zambia, mental health problems are a growing public concern. The objective of the study was to explore factors affecting the ability of health care providers to detect mental health problems at PHC level in Lusaka District.

**Methods:** This was a mixed method study which was conducted with a sample of 148 health care providers from Primary Health Care services. The study used simple random and purposive sampling methods to select the respondents. A total number of 134 health care providers participated in a structured interview and 14 participated in the Focus Group Discussions. Quantitative and qualitative data was collected using a structured interview schedule and focus group discussion guide respectively. Quantitative data was analyzed using SPSS version 20 software computer packages. Qualitative data was analyzed using content analysis. Chi-square test and binary linear regression analysis were used for evaluation of data, with the confidence interval set at 95%, and the P value was equal or less than 0.05.

**Results:** Most of the participants with high knowledge in mental health (100%) were able to detect mental health problems while participants with low knowledge in mental health (53.2%) were not able to detect mental health problems. Knowledge in mental health ( $p$ -value = 0.000 ( $X^2= 45.968$ ,  $N=134$ )) and use of standardized guidelines ( $p$ -value = 0.000 ( $X^2= 41.982$ ,  $N=134$ )) were the only factors that significantly correlated with the  $p$ -value of 0.05, while workload and time were not statistically significant with a  $p$ -value > 0.05.

**Conclusion:** Low ability to detect mental health problems indicate that interventions such as regular in-service training and use of standardized guidelines in mental health have major implications for improving the ability of health care providers to detect mental health problems early among patients who seek primary health care services.

**Keywords:** factors, affecting, ability, detect, mental health problems, healthcare providers, primary health care

### 1. Introduction

Mental health is a positive concept related to the social and emotional wellbeing of individuals and communities. Mental health is a positive concept related to the social and emotional wellbeing of individuals and communities. The concept is culturally defined, but generally relates to the enjoyment of life, ability to cope with stresses and sadness, the fulfillment of goals and potential, and a sense of connection to others<sup>[1]</sup>. Mental health is a desirable quality in its own right and is more than just the absence of mental-ill health. It is relevant to all people, regardless of whether they are currently experiencing or recovering from mental illness<sup>[2]</sup>.

Mental-ill health is a spectrum of problems that interfere with an individual's cognitive, social and emotional abilities. The term encompasses both "mental health problems and mental illnesses<sup>[2]</sup>". Furthermore, Mathers *et al.*<sup>[3]</sup> state that mental illness or mental disorder is clinically diagnosable illness and is generally made according to the classification system of the Diagnostic and Statistical Manual of Mental Diseases (DSM) or International Classification of Diseases (ICD). However, there are different types of mental illnesses and each of these can occur with a varying degree of severity. Mental illnesses include mood disorders (depression, anxiety and bipolar

disorder) and psychotic disorders (schizophrenia), eating disorders and personality disorders<sup>[3]</sup>.

According to Barry and Jenkins<sup>[2]</sup>, mental health problems interfere with a person's cognitive, emotional or social abilities but may not meet the criteria for a diagnosed mental illness. They often occur as a result of life stressors, and are usually less severe and of shorter duration than mental illnesses. These often resolve with time or when the life stressor changes. Moreover, when there is failure to detect mental health problems early, they tend to persist or increase in severity and may develop into a mental illness. Examples of mental health problems would be the sadness and despair associated with grief and loss, and symptoms associated with stress and reactive distress<sup>[3]</sup>.

In addition, mental health problems result in impaired functioning, increased need for health care and marked deterioration among the different domains of quality of life. They have a dramatic effect on the lives of those who experience them and their families, and have a considerable economic impact on society as those affected become less productive. Currently, there has been an increasing global and regional recognition of common mental disorders as major public health problems in Primary Health Care (PHC) setting

(Substance Abuse and Mental Health Services Administration [4].

PHC is a vehicle that is used to deliver quality health services to people. It is about providing essential health care which is universally accessible to individuals and families in the community and provided as close as possible to where people live and work. It refers to the care which is based on the needs of the population. Primary health care provides keys for promoting mental health and preventing mental disorders among patients who are seen regularly at primary settings. It also serves as the basis for early detection and intervention for mental health problems [5].

Therefore, there is need to provide mental health services in primary settings which involve diagnosing, treating people with mental health problems and developing strategies that prevent mental disorders. This should be done by health care providers through applying key psychosocial and behavioral science skills such as interviewing, counselling and interpersonal skills in their day to day work in order to improve overall health outcomes in Primary Health Care [6]. The assertion that, early and accurate detection of mental health problems and; appropriate treatment and management plan could help to reduce the global and regional burden of mental disorders on health and social care systems [6].

## 2. Background Information

Zambia, like any other country has the rising rate of mental health problems which may be related to such factors as economic change, political, social violence and cultural disruptions [7]. A dramatic increase in the numbers of refugees and people dislocated from their homes by economic and political forces is associated with increases and long term disease management [7]. Furthermore, Simenda [8] reiterated that mental health problems now have increasing incidence and a public concern. The study further revealed that neuropsychiatric sequelae of HIV and AIDS, neuropsychiatric complications of alcohol and other drugs of abuse, and gender based violence are common in all of Zambia's communities leading to mental health problems. In addition, Chishinga *et al.* [9] also revealed a high prevalence of mental health problems in the general population resulting from the demands of life and emphasizes that unless addressed adequately they would have a negative effect on the individual, family, community as well as the economic well being of the country.

Primary health care still remains the patients' first point of contact with the health system and involves the provision of integrated, accessible health care services by a variety of health care providers. It includes care given on first contact and in ambulatory settings. Primary care services encompass preventive, promotive, supportive, curative and rehabilitation services.

These services, provided by professionals from different disciplines attempt to enhance the individual's physical, mental, emotional and spiritual well-being, and address factors that influence their health. They are usually designed to deliver services that include mental health in conjunction with community health care providers [5].

Globally, mental health problems are a leading cause of morbidity [6]. They are widespread in industrialized countries,

ranging from 4.3 to 26.4 percent annually with 80 percent of the population consulting the primary health care providers [6, 3]. Bushnell [10] revealed that one in four patients in primary health care has a diagnosable mental health problem and PHC providers provide most of the treatment in the population. In addition, Watson [11] also revealed that health care providers' recognition of mental health problems in patients suggested that half of the people with mental health problems are not recognized. The study further argued that this may constrain early detection of mental health problems and optimal delivery of adequate treatment.

The burdens of mental health problems include treatment cost, productivity loss, functional impairment, and reduced quality of life [10, 12]. However, a study by Mathers *et al.* [3] asserts that early detection and management of mental health problems may promote a more holistic approach to patient care and ensures both improved delivery of care and prevention of mental disorders. In a related study by Smith [13] found that primary health care providers' ability to detect, diagnose, and adequately treat patients with mental health problems in Australia, New Zealand, the United Kingdom (UK), and Canada is often considered unsatisfactory and further revealed that 30-70 percent of patients with mental health problems remain undetected. In Africa between 90 and 95 percent of people with mental health problems present at primary health care, traditional and faith healers [14, 15], while about 60 percent of patients with mental health problems in primary health care settings pass undetected [4].

The general practice at PHC level in Zambia, acts as both the gateway and gatekeepers to secondary and tertiary health care with exception of the emergency presentations (Lusaka District Community Health Centres (LDCHC [16]. Over the last decade, the country embarked on a radical transformation process that aimed at creating a well-functioning, cost effective and equitable health care system [17]. In line with Primary Health Care vision to provide essential health care as close to the family as possible, health care providers have in their respective curricula a course component which comprise mental health, mental illness and its management [18, 19]. This implies that health care providers trained in Zambia have the basic knowledge and skills needed to provide mental health services to those who need them even without specialized training.

Majority of people with mental health problems, including those with severe mental illness, view primary care as the cornerstone of their health care system [20] and; health care providers are expected to identify and assess the mental health needs of the patients, and manage common mental health problems in primary care [21]. According to WHO & Wonca [5], health care providers who are frontline health care workers provide most of the treatment of psychological problems of people in the general population. Therefore, early detection and treatment of mental health problems may help reduce the burden on individuals, families and society; household productivity and social integration may be maintained, resulting in better chances of recovery.

## 3. Methods

Data stem from Community Health Centres based on the mixed method study carried out in Lusaka, Zambia. The study

was undertaken in Lusaka District Community Health Centres (LDCHC). There are 28 Health Centres which provide primary health care services to more than 2,198,996 total population [22] and the services are available 24 hours a day. The study was done in the four [4] health Centres that were selected. In this study, the target population consisted of Clinical Officers, Nurses and In-charges in LDCHC that provide primary health care services as part of their work. There are about 285 health care providers in the target population, that is, 38 clinical officers, 20 In-charges and 227 nurses. For this study, two sampling methods were used, purposive and simple random sampling methods. Purposive sampling was used to select the Clinical officers, In-charges and health centres.

Out of the 28 health centres, four [4] health centres were selected using purposive sampling method because they were bigger, attend to fifty or more patients per day, and had reasonable numbers of health care providers. Clinical Officers were also selected by this method because they were limited in number and provided more required information. Simple random technique using a rotary method was used to select nurses working in the selected health centres to participate in the study because their population was bigger. The participants (In-charges) for the FGDs were picked from the two health centres (out of the four purposively selected health centres) which were randomly selected, while the In-charges of the two health centres were purposively selected. The sample size was calculated basing on Krejcie and Morgan's formula [23] for calculating sample size of a finite population. The calculated sample size comprised 164 participants. Structured interview and Focus Group Discussion (FGD) were used in this study to collect data from the participants containing both close ended and open ended questions which were used to collect qualitative and quantitative data. A structured interview schedule and focus group guide were used to capture data on demographic characteristics, knowledge in mental health, staff workload, time, and use of standardized guidelines in mental health. The same instruments were used on all the participants to ensure reliability and validity.

Statistical analyses were carried out using IBM® SPSS® Statistics for Windows Version 20.0 (IBM Corp. Armonk, NY, USA). Data analyses focused on univariate frequency tables and bivariate cross tabulations that identified important relationships between variables. The 95% confidence interval was calculated using binary logistic regression to identify predictors of ability to detect mental health problems by health care providers while adjusting for confounders. A p-value of < 0.05 was considered significant.

This study was approved by ERES CONVERAGE (Ref. No. 2015-Mar.015).

## 4. Results

Results emerged from analysis of data obtained through face to face interview and focus group discussions involving Clinical Officers, Nurses and In-charges as participants. Their knowledge level in mental health, staff workload, time and use of standardized guidelines were discussed and conclusions on how these contributed to ability to detect mental health problems were drawn.

## 4.1 Quantitative data

### 4.1.1 Socio-demographic

**Table 1:** Demographic Data (n = 134).

Sex	Frequency	Percent
Male	29	21.6
Female	105	78.4
Total	134	100.0
Age range		
20 – 30 years	20	15.0
31 – 40 years	42	31.0
Above 40 years	72	54.0
Total	134	100.0
Profession		
Clinical Officer	28	20.9
Nurse	106	79.1
Total	134	100.0
Training Institution		
Chainama College of Health Sciences	28	21.0
Government owned Nursing Schools	30	22.4
Mission Owned Nursing Schools	66	49.2
Private Owned Nursing Schools	10	7.4
Total	134	100.0
Length of service		
3 months to 1 year	5	3.7
2 to 6 years	38	28.4
7 to 11 years	19	14.2
12 years and above	72	53.7
Total	134	100.0

A total of 134 participants took part in the interview schedule of the study (Table 1). Participants' age ranged from 25 to 40 years and above. One hundred and six (78.4%) of the participants were females. More than three-quarters 106 (79.1%) were in the nursing profession. Only 28 (20.9%) were Clinical Officers. Participants trained from different health training institutions with majority 66 (49.2%) trained with mission owned training institutions. Majority 72 (53.7%) of the participants had length of service 12 years and above.

### 4.1.2 Knowledge in mental health

A total of 76 participants had low knowledge and 58 participants had high knowledge in mental health. Among those with low knowledge 35 (46.6%) were able to and 41 (53.4%) were not able to detect mental health problems. Fifty-eight (100%) of the participants who had high knowledge in mental health were able to detect mental health problems. The Chi-square test results showed a statistically significant relationship between possession of knowledge in mental health and ability to detect mental health problems ( $X^2 = 45.968, p < 0.05$ ).

### 4.1.3 Staff Workload

A total of 127 of the participants were overloaded with work and 7 of the participants had normal workload. Among the participants with work overload, 90(70.5%) were able to and 37(29.5%) were not able to detect mental health problems. Seven (100%) of the participants who had normal workload were able to detect mental health problems. The Chi-square test results showed no statistically significant relationship between workload and ability to detect mental health

problems ( $X^2 = .0361, p > 0.05$ ).

**4.1.4 Time**

A total of 72 participants had adequate time to and 62 had inadequate time to detect mental health problems. Among the participants with adequate time, 52(72.4%) were able to and 20(27.6%) were not able to detect mental health problems. Among those with inadequate time, 34(54.5%) were able to and 28(45.5%) were not able to detect mental health problems. The Chi-square test results showed no statistically significant relationship between average time spent per patient and ability to detect mental health problems ( $X^2 = 1.553, p > 0.05$ ).

**4.1.5 Use of standardized guidelines**

A total of 76 participants revealed that they do not and 58 participants revealed that they use standardized guidelines. Among the participants who do not use standardized guidelines, 37(48.7%) were able to and 39(51.3%) were not able to detect mental health problems. Fifty-eight (100.0%) of the participants who use standardized guidelines were able to detect mental health problems. The Chi-square test results showed a statistically significant relationship between use of standardized guidelines in mental health and ability to detect mental health problems ( $X^2 = 41.982, p = 0.000$ ).

**4.1.6 Multivariate logistic regression model**

**Table 2:** Multivariate logistic regression model showing factors affecting the ability to detect mental health problems.

Variable	Ability level		P < 0.05 (CI 95%)
	Not able to n (%)	Able to n (%)	
Knowledge in mental health			
High knowledge	n=41 (0.0%)	n=58 (100.0%)	0.000 ( $X^2= 45.968, N=134, p < 0.05$ )
Low knowledge	n=41 (53.4%)	n=35 (46.6%)	
Staff workload			
Normal load	n=0 (0.0%)	n=7 (100.0%)	.361 ( $X^2=.833, N=134, p > 0.05$ )
Overload	n=37 (29.5%)	n=90 (70.5%)	
Time			
Adequate time	n=28 (45.5%)	n=33 (54.5%)	.213 ( $X^2= 1.553, N=134, p>0.05$ )
Inadequate time	n=20 (27.6%)	n=52 (72.4%)	
Use of standardized guidelines			
Use	n=39 (51.3%)	n=37 (48.7%)	.000 ( $X^2= 41.982, N=134, p<0.05$ )
Non use	n=00 (0.0%)	n=58(100.0%)	

Table 2 above shows the multivariate logistic regression showing knowledge (0.000 ( $X^2= 45.968, N=134, p < 0.05$ )) and standardized guidelines (0.000 ( $X^2= 41.982, N=134, p<0.05$ )) the most predictor variables with statistical significance to ability to detect mental health problems compared to workload and time with  $p > 0.05$ .

**4.2 Qualitative data**

Two focus group discussions were conducted and each comprised heads of departments in the health centres using the guiding questions in Table 3.

**Table 3:** Guiding Questions.

	Questions
1	In your own opinion what do you think is mental health?
2	How can you know that this patient has a mental health problem?
3	What do you use to detect mental health problems in patients you see?
4	What factors do you think might be affecting early detection of mental health problems in patients at this health centre?
5	How does workload impact on the ability to detect mental health problems in patients?
6	What are some of your suggestions to promote early detection of mental health problems?

The participants were within the age of 30- 50 years. There were 14 participants in the FGD of which 12 were females and 2 males. Among them 11 were nurses and 3 were Clinical

officers. Participants expressed diverse understanding of mental health and revealed among others factors that affect detection of mental health problems (Table 4).

**Table 4:** Showing presentation of qualitative data from Focus Group Discussions.

Interview transcript	Final coding framework
Interviewer: ‘Can you tell me what you know about mental health?’ Participant 1 stated that “ <i>mental health is the care given to a person with a mental problem</i> ”. Participant 2 stated that “ <i>mental health is being able to handle one’s problems without being affected mentally</i> ”.	Knowledge in mental health
Interviewer: “What do you use to screen or assess a patient for any mental health problem?” Participant 14 stated that “ <i>we do not have standardized guidelines in mental health but we use psychiatric knowledge from the colleges where we trained</i> ”. Participant 13 stated that “ <i>identified patients with mental health problems are counseled and referred when</i>	Use of standardized guidelines in mental health

<i>necessary, but some I just refer to mental health specialists”.</i>	
<p>Interviewer: “Tell me about what affects your early detection of patients with mental health problems here?”</p> <p>Participant 6 said; “<i>In my department, on average we see 80-100 patients per day with only one Clinical officer and 1 or 2 nurses per shift. There is shortage of staff with a lot of work for them while they are expected to provide quality health care which is compromised at the end of the day”.</i></p> <p>Participant 13 said “<i>We need a simple, short and easy to use guideline or flow chart in mental health which is time friendly if we are to identify mental health problems early in patients. We also need to have mental health personnel in the clinics for ease referral and continuity of care than always referring to Chainama when need arise”.</i></p>	<p>Staff workload Average time spent per patient</p>
<p>Interviewer: “Tell me what you wish to be done to improve early detection of mental health problems?”</p> <p>Participants unanimously said “<i>we need to improve the staffing levels which include mental health personnel in the clinics. We need also to have regular training in mental health to increase our knowledge base, and to develop a simple, short, ease to use and time friendly guidelines or flow chart in mental health. We further need to start conducting community sensitization in mental health service that we are able to provide at health centre level”.</i></p>	<p>Recommendations</p>

It was expressed as the care given to people with mental illness and an important aspect of health. Participants revealed that they do not have standardized guidelines in mental health; therefore, they depend on their initial mental health knowledge to detect any cases of mental health problems. Participants further revealed that they face challenges of increased workload and under staffing, thereby, compromising the quality of care provided.

Participants unanimously also suggested that there is need to improve the staffing levels which include mental health personnel in the clinics. There is need also to have regular training in mental health to increase the knowledge base, and to develop a simple, short, ease to use and time friendly guidelines or flow chart in mental health. Furthermore, result indicated that there is need to start conducting community sensitization in mental health service that are being provided at health center level. The FGD supplemented the findings from the comparative analysis of the quantitative data.

## 5. Discussion

Mental health problems are a growing public concern in Zambia [8] even though ability to detect mental health problems is unsatisfactory. The main objective of the study was to explore factors affecting the ability of health care providers to detect mental health problems at PHC level in Lusaka. The ability to detect mental health problems was explored by comparing knowledge in mental health, staff workload, average time spent and use of standardized guidelines scores.

### 5.1 Demographic characteristics of the sample

The demographic characteristics revealed that the study population was composed of more females (78.4%) who were in the nursing profession (79.1%). This could mean that there are more female health care providers who are nurses. This result of the present study supports CSO [8] demographic survey reporting that there are more females than males in the population.

The present study revealed that the age range for participants was between 25 - 40 years and above with service length of twelve years and above. It is however recognized that the distribution of this sample by age and length service are dependent on the sampling methods used in the present study. It is worth noting that health care providers trained from different training institutions. This could mean that there are a lot of health training institutions in Zambia that are government and private owned in the quest to increase staffing

levels in health facilities.

On the demographic variables, this study showed that professions influence the ability to detect mental health problems as Clinical officers were able to detect mental health problems compared to nurses. There could be several possible explanations to this. This finding could be attributed to the teaching methods that were used which could have been appropriate to each profession, such as, use of visual aids, simulations, and role plays and clinical practice. However, the statistical test for this study revealed that demographic variables have no statistical significant relationship with ability to detect mental health problems ( $p > 0.05$ ).

### 5.2 knowledge in mental health

Mental health knowledge is power and plays a major role in early detection of mental health problems and provision of quality health services that culminates in better health outcomes [5]. This present study revealed that health care providers (56.7%) had inadequate knowledge in mental health and among them 53.4% were not able to detect mental health problems in patients. In addition, the results from the present study FGD also confirmed that there are no psychiatric drugs in the drug supplies making it difficult to manage such patients but rather refer the patients to specialist health facility. To confirm further, whether, knowledge in mental health affects ability to detect mental health problems, the results of the Chi-square showed a statistically significant relationship between knowledge in mental health and ability to detect mental health problems ( $X^2 = 45.968$ ,  $p = 0.000$ ).

Evidence from previous studies in different part of the world showed that health care providers have inadequate knowledge in mental health and on treatment of mental health problems, hence, resort to refer patients to mental health specialists [24, 25]. Knowledge of mental health problems particularly symptoms helps to understand what may happen, and all this information presents a better opportunity to attend to a patient. This was proved by a statistically significant positive link between ability to detect mental health problems, evaluation of their influence on patients' behaviour and knowledge of how to interact with a patient with mental health problems [26]. In the World Health Organization study on psychological disorders in primary care, only half of the patients with mental health problems were recognized by health care providers; among those patients with a recognizable mental health disorder, only half were offered drug treatment [5]. Undetected mental health morbidity in primary care commonly leads to unnecessary investigation, medication and continued suffering

of the patient. This inevitably leads to impaired family, occupational and social functioning<sup>[9]</sup>. It is, therefore, of utmost importance for health care providers in primary care and general practice to be equipped with the necessary knowledge and skills for detecting and managing the patients with common mental health problems. On the contrary, Mania *et al.*<sup>[27]</sup> suggests that people have got individual traits that may hinder them to acquire knowledge even when training has been undertaken.

However, El-Rufaiel observed that early detection of mental health problems reduces the number of subsequent medical consultations and shortens the duration of an episode. Furthermore, he pointed out that detection of mental problems will result in greatly reduced social impairment in the long term<sup>[28]</sup>.

### 5.3 Staff workload

Shortages of health care providers had made it difficult to perform to the expected standards as perceived by the patients and community at large. The perception of inefficiency by the patients and community is as a result of high patient load and thus shown by health service delivery and lack of concern and support for patients. The present study revealed that health care providers are experiencing higher workload (94.8%) which could be due to increasing disease burden consequently demanding for health services. During the focus group discussion for this study, participants brought out similar concerns that health care providers are experiencing high workload due to increased demand for health services, and inadequate staffing. However, the bivariate cross tabulation revealed that among the health care providers who experienced work overload, 70.5% were able to detect mental health problems. Further validation of workload affecting ability to detect mental health problems, the result of a Chi-square (.833) and  $p$  .361 showed that these results were not statistically significant.

Nevertheless, according to Coopers<sup>[29]</sup>, high workload is a key job stressor of health care providers in a variety of care settings, such as primary health care. A heavy clinical workload can lead to distress (such as, sarcasm, anger, and emotional exhaustion) and burnout. However, a study done in UK by Carayon and Alvarado<sup>[30]</sup> revealed that higher patient population, work system factors and expectations also contribute to the increasing workload, while, health care providers are expected to perform non-professional tasks such as coordinating and performing additional services. Carayon and Gurses<sup>[31]</sup> further revealed that shortage of staff and a heavy workload seems to be related to suboptimal patient care which leads to reduced patient satisfaction. Much of the research investing on the impact of workload on patient safety focus on linking staffing levels with patient outcomes. Therefore, there is strong evidence in literature that staffing levels significantly affect several patient outcomes.

On the contrary, Carayon and Gurses,<sup>[31]</sup> also found that health care provider-patient ratio exposed that factors other than patient's clinical condition (for example, ineffective communication, supplies not well stocked) may significantly affect workload and not the number of patients. Furthermore, Carayon and Gurses<sup>[31]</sup> retaliated that researchers who use the health care provider-patient ratio as a measure of workload

offer a limited contribution to understanding the impact of clinical health workload and designing solutions for reducing or mitigating clinical health workload. One reason for the extensive use of the health care provider-patient ratio may be that this measure is easy to use and is readily available in existing databases.

Regarding workload and ability to detect mental health problems, a study done by Curationis<sup>[32]</sup> in South Africa revealed that it is not always the case that as workload increases performance decreases. This is because as workload increases, the worker may have a strategy for handling task demands.

### 5.4 Time

A study done by Schreuders *et al.*<sup>[33]</sup> argues that shortages on health care providers and time as well as an increase in patient population may lead to health care providers to only concentrate on the physical aspect of health that requires shorter consultation time. However, the present study further confirmed that health care providers with adequate time (72.4%) and 54.5% with inadequate time were able to detect mental health problems. This could be attributed to knowledge in mental health and utilization of this knowledge, and attitude. The assumption is supported by Ndetil *et al.*<sup>[34]</sup> who echoed that in Kenya health care providers have shown a positive attitude towards mental health problems although it is hampered by inadequate knowledge and time when evaluating patients presenting with psychological symptoms. Similarly, this result augments Curationis's<sup>[32]</sup> finding which revealed that despite high patient population and limited time spent with patients, patient centred care should be provided to all patients. These findings suggest that there is no association between time and ability to detect mental health problems.

Contrary to what was expected, Carayon and Gurses<sup>[31]</sup> shows that factors other than patient's clinical condition (such as, attending to personal issues, many family needs, coordinating workplace activities, poor physical work environment) may significantly affect time. Although, this current study did not concentrate on such factors, this study result indicate that the average time spent per patient is 5–15 minutes (70.9%) which makes it difficult to conduct a thorough mental state examination and take psychiatric patient history in comparison to 73.1% indication that 30 minutes would be adequate time. Furthermore, this study did not find a statistical significance (Chi-square 1.553 and  $p$  .213), thus, supporting Curationis<sup>[32]</sup>. This result is in agreement with Scheppers,<sup>[35]</sup> who found similar findings that, the length of consultation was long with patients with mental health problems. This consultation time was also perceived to be a barrier to early identification of mental health problems as these patients often required a longer consultation time than the standard 10 to 15 minutes. According to Scheppers<sup>[36]</sup>, time pressure in everyday practice is also responsible for difficulties in successful identification of mental health problems, referral to mental health specialists and other more efficient interventions.

### 5.5 Standardized Guidelines

Generally standardized guidelines are being used in general practice for easier screening of patients with certain

conditions, for instance, in HIV/AIDS. Ninety-one percent of health care providers revealed that they use standardized guidelines which could be attributed to working in a general setting where these guidelines are available. The result of the present study revealed that among the health care providers (51.3%) who do not use standardized guidelines were unable to detect mental health problems, while, a contrary finding from the focus group discussion revealed that there are no standardized guidelines in mental health. Analysis of a bivariate cross tabulation between use of standardized guidelines and ability to detect mental health problems showed that there is a positive statistical significant relationship ( $X^2 = 41.982, p = 0.000$ ).

Jirapramukpitak<sup>[36]</sup> in India, revealed that about a third of patients presenting in primary care facilities often present to the clinicians working at this level with sub-threshold disorders featuring a confusing blend of psychological and physical symptoms. This calls for an approach that might facilitate comprehensive assessment of each patient. Furthermore, Chishinga *et al.*<sup>[9]</sup> also agreed that there is a high prevalence of mental health problems in the general population that could easily be detected by use of the Mini-International Neuropsychiatric Interview (MINI). MINI defines current major depressive disorder and alcohol use disorders respectively which is a suitable mental health screening tool for use among TB and ART patients in primary care in Zambia. This current study produced results which corroborate the findings of Mubarek *et al.*<sup>[37]</sup> in Ethiopia who also revealed that there were no mental health-related guidelines within any of the health centres. According to Manias *et al.*,<sup>[27]</sup> findings, non availability of guidelines for health care providers to use as a reference for patient assessment could be attributed to non identification of common mental health problems.

Protocols and algorithms educate and guide clinical decision-making, ensure quality of care<sup>[38]</sup>, and these may facilitate quick assessment of patients. Araya *et al.*<sup>[14]</sup> posited that health screening tools such as the GHQ-12 may be used in primary health care settings to heighten suspicion of the presence of psychological disorders and make it easier for primary care providers to identify which cases may qualify as having mental health problems. This current study result also is in agreement with the findings in a controlled comparison study by Cape *et al.*<sup>[39]</sup> who established the ability of practice nurses to detect psychological distress in patients attending primary health care settings in Britain. The study revealed that practice nurses' ability to identify probable cases of psychological morbidity was enhanced from 12% to 26% when using the health screening tool.

To further strengthen this submission, Asibongi *et al.*<sup>[24]</sup> in Nigeria revealed that use of a health screening tool in primary care setting will not only help in case detection, but will reduce to some extent problems of recurrent consultation, unwarranted investigations, inappropriate referrals or treatments and chronicity of symptoms. The result of this current study show that 100% of the health care providers indicated that use of standardized guidelines is useful in identifying mental health problems early agreeing with Asibongi *et al.*<sup>[24]</sup>. In addition, Smith<sup>[13]</sup> also reported that minor mental health problems were easily detected using

standardized guidelines /or health assessment tools.

In contrast, Bones *et al.*<sup>[40]</sup> attested that using standard guidelines such as, the Structured Clinical Interview for DSM III R (SCID) - derived diagnosis as the standard, health care providers were able to correctly identify very few of the specific mental health problems most prevalent in primary care practice and failed to recognize two-thirds of their patients with a current mental health problem. Furthermore, Croudace *et al.*<sup>[41]</sup> also reiterated that passive dissemination of guidelines to improve the recognition and management of mental health problems, as well as broad education programs have generally been found to have minimal positive outcomes. For this reason, Manias *et al.*<sup>[27]</sup> concluded that even if simple and efficient screening tools may be, it is unlikely that health care providers in general health care setting will use it given the short period of time per patient. This was proven in this present study with the results yielded from the bivariate cross tabulation between the independent variables knowledge in mental health and use of standardized guidelines to detect mental health problems that 40% of the health care providers could not use the guidelines despite having the knowledge.

## 6. Conclusion and recommendations

Challenging life experiences and responses take place within a context where such factors as economic challenge, political and social violence, and cultural disruptions attach significance to both physical and psychological aspect of a person. The results of this study suggest that ability to detect mental health problems have a substantial impact on the psychological/mental well-being of patients. The study finally found that there is low level of knowledge in mental health among health care providers, non use of standardized guidelines in mental health as they are not available. These are the only variables that affect the ability of health care providers to detect mental health problems at PHC level regardless of workload and time spent per patient.

Mental health is undoubtedly connected to the physical and psychological well-being of the person, improving early detection and management of mental health problems should be a core part of the health care provision.

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## 8. Tables

**Table 1:** Demographic characteristics of patients

**Table 2:** Multivariate binary logistic regression model-determining factors associated with ability to detect mental health problems

**Table 3:** Guiding Questions for Focus Group Discussion

**Table 4:** Presentation of qualitative data from Focus Group Discussions

## 9. References

1. Tasmanian. Strengthening the mental health consumer voice. Available from: <http://www.peersupportvic.org/research-directory/peer-support.download.2009>. 2009.
2. Barry MM, Jenkins R. Mental health promotion in primary health care: Implementing Mental Health Promotion Philadelphia, PA: Churchill Livingstone. Available from: <http://www.fishpond.co.nz/Books/Implementing-mental-health>. 2007, 255-295.
3. Mathers C, Loncar D. Projections of global mortality and burden of disease from 2002 to 2030. *PLoS Medicine* Available from: <http://www.plosmedicine.org/article/info%3Adoi%2F10.1371%2Fjournal.pmed.0030442>. 2006, 3(11):e442.
4. Substance Abuse, Mental Health Services Administration SAMHSA. Adolescent Health Highlight: Access to mental health care. Available from: <http://samhsa.gov/data/default.aspx>. 2012.
5. WHO, Wonca. Integrating mental health into primary care: A global perspective. Geneva: World Health Organization and World Organization of Family Doctors. Available from: [www.who.int/mental\\_health/resources/mentalhealth\\_PHC\\_2008.pdf](http://www.who.int/mental_health/resources/mentalhealth_PHC_2008.pdf). 2008.
6. World Health Organization WHO. Mental Health Gap Action Programme mhGAP: Scaling up care for mental, neurological and substance use disorders. Geneva. Available from: [www.who.int/mental\\_health/mhgap/en/](http://www.who.int/mental_health/mhgap/en/). 2008.
7. Ministry of Health MoH. Mental Health Policy. Lusaka, Zambia, 2005.
8. Simenda F. A Synopsis of Mental Health in Zambia. *Medical Journal of Zambia*. Available from: <http://www.mjz.co.zm/content/synopsis-mental-health-zambia>. 2010.
9. Chishinga N, Kinyanda E, Weiss HA *et al.* Validation of brief screening tools for depressive and alcohol use disorders among TB and HIV patients in primary care in Zambia. *Journal: BioMed Central of Psychiatry*. Available from: <http://www.biomedcentral.com/1471-244X/11/75> on 15/05/2014. 2011; 11(1):1-10.
10. Bushnell AD. Recognition of physical and psychological symptoms. UK. *British Journal of General Practice*. Nov 1, Available from: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1324917/>. 2004; 54(508): 838–842.
11. Watson DE, Heppner P, Roos NP, Reid RJ, Katz A. Population-based use of mental health services and patterns of delivery among family physicians, 1992 to 2001. *Canadian Journal of Psychiatry*. 2005; 50(7):398-406.
12. Kringos DS, Boerma GW, Hutchinson A, van der Zee J, Groenewegen PP. The breadth of primary care: a systematic literature review of its core dimensions. *BioMed Central of Health Services Resources* Available from: <http://www.ncbi.nlm.nih.gov/pubmed/20226084> on 02/01/2014. 2010, 10-65.
13. Smith GC. From consultation-liaison psychiatry to integrated care for multiple and complex needs. *New Zealand Journal Psychiatry*. Available from: [www.ncbi.nlm.nih.gov/pubmed/19085523](http://www.ncbi.nlm.nih.gov/pubmed/19085523). 2009; 43(1):1-12.
14. Araya R, Wynn R, Leonard R, Lewis G. Psychiatric morbidity in primary health care in Santiago, Chile. *British Journal of Psychiatry*. Available from: <http://bjp.rcpsych.org/content/178/3/228.full>. 2001; 165:530-3.
15. Afana AH, Dalgard OS, Bjertness E, Grunfeld B. The ability of general practitioners to detect mental disorders among primary care patients in a stressful environment: Gaza Strip. *Journal of Public Health Medicine*. Available from: [http://www.ourmediaourselves.com/archives/93pdf/Ventevogel%20et%20al\\_Intro.pdf](http://www.ourmediaourselves.com/archives/93pdf/Ventevogel%20et%20al_Intro.pdf). 2002; 24:320-8.
16. Lusaka District Community Health Centres LDCHC. Action Plan. Lusaka, Zambia, 2013.
17. Mwape L, Sikwese A, Kapungwe A, Mwanza J, Flisher A, Lund C, Cooper S. Integrating mental health into primary health care in Zambia: A care provider's perspective. *International Journal of Mental Health Systems* 2010;4:21 doi: 10.1186/1752-4458-4-21, 2010.
18. Msidi EJ. The General Nursing Council of Zambia: Curricula Development. Zero Draft, Lusaka, 2010.
19. Health Professional Council of Zambia. Clinical officer - General Curriculum. Lusaka, Zambia, 2009.
20. Lester H, Tritter JQ, Sorohan H. Patients' and Professionals' views on Primary Health Care for people with serious mental illness: focus Group Study. *British Medical Journal* Available from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC557894/>. 2005; 2005:330(7500):1122-1126.
21. Department of Health. Meeting the physical needs of individuals with mental health problems and the mental health needs of individuals cared for in general health sectors: Advice from the Standing Nursing and Midwifery Advisory Committee, London: The Stationery office. Available from: [www.scie.org.uk/publications/guides/guide03/files/guide03.pdf](http://www.scie.org.uk/publications/guides/guide03/files/guide03.pdf), 2005.
22. Central Statistics Office CSO. Census report for Zambia. Lusaka, 2010.
23. Krejcie RV, Morgan DW. Determining Sample Size for Research Activities. *Educational and Psychological Measurement*. Published formula for determining sample size. The relationship between sample size and total population illustrated in Figure 1. Available from: [http://home.kku.ac.th/sompong/guest\\_speaker/KrejcieandMorgan\\_article.pdf](http://home.kku.ac.th/sompong/guest_speaker/KrejcieandMorgan_article.pdf), 1970.
24. Asibongi UE, Udonwa NE, Ekp, EE. Patient characteristics that may predict the likelihood of the presence of mental health problems in patients attending the general outpatient clinic of a tertiary hospital in South-South Nigeria. *Journal of Mental Health Family Medicine*. Available from: <http://www.ncbi.nlm.nih.gov/pmc/issues/193227/>. 2010; 7(3): 169–177.
25. Olawale O, Francis AO, Abasiubong F *et al.* Detection of



- mental disorders with the Patient Health Questionnaire in primary care settings in Nigeria. Available from: <http://www.oalib.com/search?kw=%20Patient%20Health%20Questionnaire&searchField=keyword>. 2010.
26. Kazlauskas A, Radzevičienė L, Šlapkauskaitė D *et al.* Image of mental disability in society. *Sveikatos mokslai* Available from: [http://www.lvb.lt/primo\\_library/libweb/action/dlDisplay.do?vid=LDB&docId=TLITLIJ.04~2005~1367151849063&fromSitemap=1&afterPDS=true](http://www.lvb.lt/primo_library/libweb/action/dlDisplay.do?vid=LDB&docId=TLITLIJ.04~2005~1367151849063&fromSitemap=1&afterPDS=true). 2005; 3:68-73.
  27. Manias E, Aitken R, Dunning T. How graduate nurses use protocols to manage patients' medications. *Journal of Clinical Nursing* 2005; 14(8):935-44.
  28. El-Rufaie OE. Review - Primary care psychiatry: pertinent Arabian perspectives. *East Mediterreanean Health* 2005; 11:449-58.
  29. Cooper JE. Detection and management of psychiatric disorder in primary care. *British Journal of Psychiatry*. 2003; 182:1-2.
  30. Carayon P, Alvarado CJ. Impact of workload on Performance. Available from: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2677047/>. 2007.
  31. Carayon P, Gurses AP. Nursing workload and the changing health care environment. Accessed from <http://www.swosu.edu/academics/aji/2011/u1i2-docs/ncill.pdf>. 2005.
  32. Curationis. Experience of nurses working in a rural primary health care setting in a Mopani District, Limpopo Province. Available from: [www.ncbi.nlm.nih.gov/pubmed?itool](http://www.ncbi.nlm.nih.gov/pubmed?itool). 2005.
  33. Schreuders B, Patricia van Oppen. Primary care patients with mental health problems: outcome of a randomised clinical trial. Available from: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2169312/>. 2012.
  34. Ndeti DM, Khasakhala LI, Mutiso V *et al.* Knowledge, attitude and practice KAP of mental illness among staff in general medical facilities in Kenya: practice and policy implication. *African Journal of Psychiatry*. Available from: [www.ajol.info/index.php/ajpsy/article/download/69605/57616](http://www.ajol.info/index.php/ajpsy/article/download/69605/57616). 2011; 14:225-2350114.
  35. Scheppers E, van Dongen E, Dekker J, Geertzen J, Dekker J. Potential barriers to the use of health services among ethnic minorities: a review. *Family Practice* Available from: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2169312/>. 2006; 23: 325–348.
  36. Jirapramukpitak T, Wogsarnri W. The ability of health care physicians to detect mental health disorders in a hospital. *Association Medical Journal* 2002; 85:301–7.
  37. Mubarek A, Markos T, Charlotte H. Perceived challenges and opportunities arising from integration of mental health into primary care: a cross-sectional survey of primary health care workers in south-west Ethiopia. *BMC Health Serv Res*. 2014; 14:113.
  38. Morales K. Clinical Practice Guidelines: A Deeper Look into Protocols and Algorithms. Available from: <http://nursetogether.com>. 2012.
  39. Cape J, Morris E, Adams N, Fairbairns A. Identification of psychological morbidity in older people in primary care by practice nurses. *Aging and Mental Health*. Available from: <http://hinarilogin.research4life.org/uniqueidwww.ncl>. 2003; 7(6):446-51.
  40. Bones JF, Howes MJ, Derins NP, Rosenberg R, Livingstone WW. Primary health care providers' recognition and diagnosis of mental disorders in their patients. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/3169532>. 2006.
  41. Croudace T, Evans J, Harrison G *et al.* Impact of the ICD-10 Primary Health Care (PHC) diagnostic and management guidelines for mental disorders on detection and outcome in primary care: cluster randomised controlled trial. *British Journal of Psychiatry*. Available from: <http://bjp.rcpsych.org/content/182/1/20.full>. Accessed on 02/02/2014, 2003; 182:20-30.