Research Article

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Knowledge, Attitudes and Practices towards Problem Management Plus among Health Care Professionals in Burera District, Rwanda: A cross – Sectional Study.

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Abstract

Introduction

Globally mental health disorders have become the leading cause of disability adjusted life where 183.9% millions of people are affected by mental health disorders and substance use. In Rwanda mental health disorder has increased and been classified among the top 10 causes of YLDs. To cope with it, since 2012 Partners in Health (PIH) in collaboration with Rwandan Ministry of Health implemented mentorship initiative namely MESH at Health Centers level in Burera District. The intervention started with pharmacotherapy and completed with Problem Management Plus in 2017 as all patients did not respond to it. However, there is no study done and published on knowledge, attitude and practice of PM+ since its implementation despite the increasing number of mental health disorders.

Methods

A cross-sectional study design with quantitative approach was conducted in July 2022. The sample was 205 participants (HCPs) from Burera District health facilities. The interviews were conducted and structured questionnaires were filled for quantitative and an interview guide for qualitative approach to collect data before entering and analyzing data into SPSS. Descriptive statistics analysis was used to determine percentages and frequencies while multivariate seconded the bivariate regression analysis to determine the factors associated with PM+ practices.

Results

the majority of respondents 118(60.5%) were females and their age is between 19 and 50, 136 (69.7%). Majority of them have bachelor's degree 98(50.3%). (57.4%) of HCPs have low level of knowledge on PM+ intervention, (48.2%) of them have negative attitudes and (82.1 %) of HCPs have poor practices towards PM+. The male respondents were three times more likely to have good practice of PM+ intervention compared to females (AOR=3.277; 95% CI: [1.358-7.665], p=0.008). The odds of practicing PM+ intervention among respondents who did not know it than those who knew it were 1.771 times (AOR=1.771; 95%CI: [0.534-5.872], p=0.041). The odds of applying PM+ were 12.749 times (AOR=12.749; 95%CI: 0.751-216.377, p=0.028) among HCPs who did not know how to use the screening tool compared to those who said that they knew how to use it.

Conclusion

The knowledge, attitudes and practices among HCPs have great impact on mental health project implementation and training of health care providers on PM+ will be crucial.

Keywords Knowledge, Attitude, Practice, Problem Management Plus, Healthcare Professional.

1. Introduction

Mental health is crucial and fundamental based of all health because is vital of thinking and decision made by human in the daily life. The global burden of disease revealed that mental health and substance use are the main cause of the global DALYs to the 250 millions of people which equal to 10.4% of global DALYs [1]. The WHO report in 2015 estimates that four hundred and fifty millions of people agonized from behavioral disorders and mental health illness. In the study done by in four persons, one of them is likely to develop mental health illness in lifetime, and also 17.9 million of people per year in Africa lost to disability due to mental health problems [2].

The epidemiological surveys conducted in African countries (south Africa and Nigeria), provided useful data on mental health disorders prevalence where South African stress and health study found that mental health prevalence was 30.3 percent and that 11.2% of respondents had two or more lifetime disorders, the prevalence of anxiety disorders classified as highest in lifetime with 15.8% [3]. The Survey conducted in Nigeria on Mental health and Well-Being between 2001 and 2003 showed that 12.1% of sample had at least one lifetime mental health disorder, and that 5.6% had faced at least one disorder in the previous 12 months where major depressive disorder was 3.3% and the alcohol abuse was 2.8 percent [4].

In 2012, Lozano stated that the prevalence rate of depression in Rwanda was 53.9%[5]. In 2017, the Global Burden of Disease revealed that, the prevalence of mental health in Rwanda has been increased and classified among the top 10 causes of YLDs where depressive disorders occupied third place, anxiety seventh place in 2017 and tis is associated with Genocide against Tutsi [6]. while the latest study done by Joseph in 2019 revealed 12% of depression in Rwanda [7].

In response to it, from 2012, PIH has collaborated with MoH and implemented the MESH in Mental health program at Health Centers level in one rural district to address the shortage number of nurses and reduction of external transfer of patient as the burden of mental disorders was very high in Rwanda[8-9]. According to the intervention started with pharmacotherapy MESH model through training of general nurses on mental health treatment and complete it through mentorship in order to full capacitate them, but after the process succeed they have discovered a gap in mental health treatment where not all patients responded to the pharmacological treatment; therefore they incorporated PM+ since 2016 to complete it[10-11].

The study conducted among nurses in Ethiopia on mental health illness treatment revealed that 24% of 109 participants have used drugs to treat patient, 17,8% of 81 participants have provided counseling/psychotherapy to the patients and 7.0% of 32 participants have referred mental health patients to the appropriate service [12].

According to the report of Rwanda Mental Health Survey mental health service is used at 5.3% where 94.7% did not use it, while psychological support (PM+) is among mental health service package [13]. This means that the populations have low knowledge and/or accompanied by negative attitude towards mental health services including PM+. Since all this affects the practice of health care providers, this study assessed KAP of care providers towards PM+ because if these health care professionals had sufficient knowledge, positive attitude and good practice, the beneficiaries of mental health services would increase and the care would become more effective by reducing the burden of increased mental health disorders in our country. In Rwanda, there is no single publication on KAP of PM+ intervention and its associated factors among healthcare providers. To fill the above said gap, the present study had four objectives: The first one is to assess knowledge of HCPs toward PM+, the second is to assess attitude of HCPs toward PM+, the third one is to determine the attitude of HCPs towards PM+ and the last one is to establish factors associated with PM+ practice among HCPs in Burera District.

2. Methods

2.1 Study Design

A cross-sectional study with quantitative approach was conducted in July 2022 to assess the level of Knowledge of Problem Management Plus among Health Care Professionals in Burera District, Rwanda.

2.2 Study Setting

the study was conducted in health centers of Burera District. This district is one of the five districts that compose the Northern Province of Rwanda. Our country is composed of 30 districts that are grouped in four provinces (East, North, West, South and Kigali City). Rwanda is located in East Africa with four neighboring countries: Uganda in north, Burundi in South, DR Congo in West and Tanzania in East.

2.3 Target Population & Sample Size

The target population of this research were 205 healthcare professionals from nineteen health centers of Burera District, Northern Province of Rwanda that include 195 healthcare professionals. This study used a census method for quantitative so that all HCPs were part of this study. Trained data collectors interviewed and filled structured questionnaires that provided data for analysis after being cleaned and entered into SPSS Version 21.

2.4 Study Variables

The dependent variable for our study was practice towards PM+ and the independent variables were grouped into four: The first was comprised of socio-demographic of the participants (age, sex, level of education, working experience). The second was made of knowledge on PM+ (eligibility criteria, where PM+ is delivered, who delivers it, screening tools, session structure, and session duration). The third was attitude towards PM+ (interesting in the use of PM+, willing to participate in his training, consider PM+ as complementary therapy) and the last was the time allocated to

PM+ intervention in health facility.

3. Data Collection Instruments and Procedures

For every participant, a structured questionnaire was completely filled. The data collectors interviewed the participants according to predefined questions about study variables. They handed the questionnaires to the HCPs and these gave the answers on their own. The trained data collectors met the participants in their respective health centers to gather data in accordance with the questions. They meet the participants in a comfortable place, and then interviews were conducted to fill out the structured questionnaire.

3.1 Data Analysis

After collecting the data from respondents through questionnaire, they were entered and analyzed with SPSS 21 software. To assess knowledge, attitudes and practices among HCPs towards PM+ descriptive statistics analysis was used. The odds ratios with 95% CI were applied to establish the factors Influencing PM+ practices positively or negatively among HCPs in Burera District health facilities. The findings of the study were considered significant for p-value <0.05. Tables, text and percentages were used in word document to present the findings of the study.

3.2 Ethical Consideration

Before starting the study. Ethical clearance was delivered and approved by Mount Kenya University Rwanda, school of Postgraduate studies and Butaro District Hospital provided the permission to conduct the research. The researcher ensured that participants completely understood the purpose and methodology to be used in the study by assuring them that the data will be kept with confidentiality without their names, each study participant signed a consent form before interviewing him/her.

4. Results

4.1 Socio - Demographic Analysis

The findings of the present study in terms of sociodemographic revealed that, 60.5% of respondents were females. A big number of respondents (49.7%) was found between 19–34 years of age. According to the level of education/qualification of HCPs, more respondents were found with A1 Advanced Diploma and 42.0% of them have 10 or more years of working experience in health care delivery

variables	Frequency(n=195)	Percentage (%)
Sex of the respondent		
Male	77	39.5
Female	118	60.5
Age of the respondent (in years)		
19-34	97	49.7
35-50	39	20.0
50+	59	30.3
Qualification of respondents		
A2	37	19.0
A1	98	50.3
A0	60	30.7
Working experience of respondent (duration in years)		
<5 years	52	26.7
5-9 years	61	31.3
10 + years	82	42.0

Table 1: Socio-Demographic Characteristics of Respondents

4.2 The level of Knowledge, Attitudes and Practice of HCPs towards PM+ Intervention

The sample was made of 195 interviewees. All participated. Of them, 83 (42.6%) were with low knowledge and 112 (57.4%) with high level of knowledge.

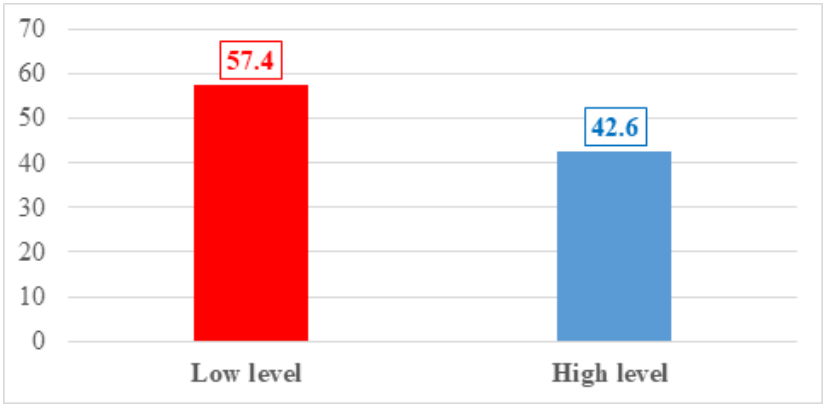

Figure 1: The Level of Knowledge of PM+ among HCPs in Burera District

To the attitude, (48.2%) of health care providers in Burera District founded with negative attitude towards PM+ while a big number of them (51.8%) had positive attitude.

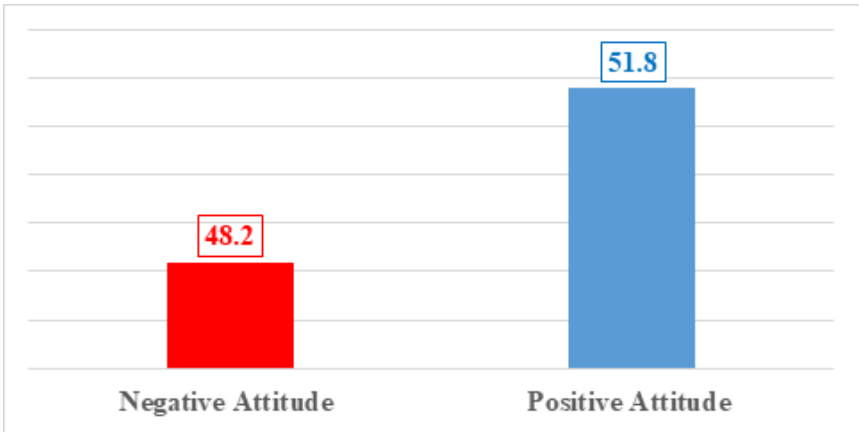

Figure 2: The Level of Attitude towards PM+ among HCPs in Burera District

The study findings revealed that a big number (82.1%) of health care providers in Burera District had poor practices towards PM+ while a few number of them (17.9%) had good practices.

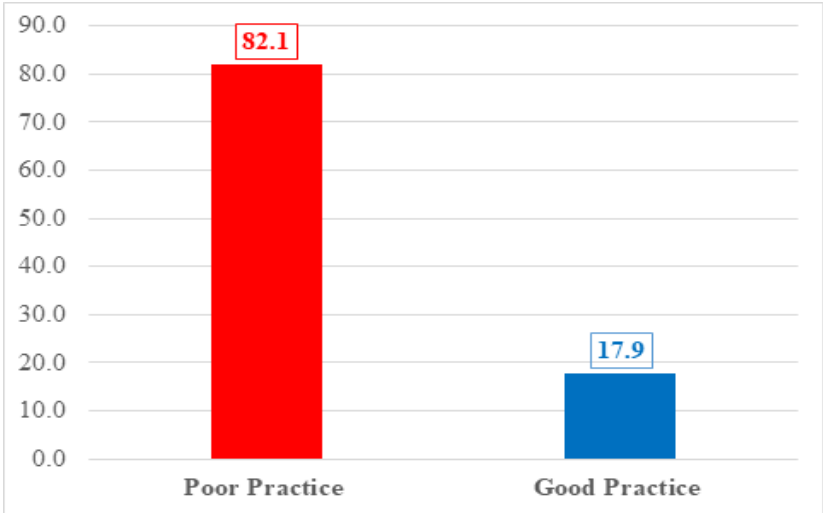

Figure 3: The Level of practice towards MP+ among HCPs in Burera District

4.3 Multivariate Analysis of Factors Associated With Pm+ Practice

Among eight factors found significant in bivariate analysis, three were concluded by the multivariate analysis: Gender of respondent, knowledge of PM+ intervention and the knowledge of the screening tool, PHQ9 were found as three factors that were associated with practice of PM+ intervention among health care providers in Burera District. That male respondents were three times more likely (AOR=3.277; 95%CI: [1.358-7.665], p=0.008) to have good practice of PM+ compared to females in Burera District. The odds of practicing PM+ intervention were 1.771 times (AOR=1.771; 95%CI: [0.534-5.872], p=0.041) among HCPs who did not know PM+ intervention than those who said they did know it. The odds of applying PM+ were 12.749 times (AOR=12.749; 95%CI: 0.751-216.377, p=0.028) among health care providers who did not know that PHQ9 is a tool used during screening compared to those who said that they did know it.

Variables	Crude OR [95%CI]	P-value	AOR [95%CI]	P-value
Sex of the respondent				
Male	4.150[1.970-8.730]	0.02	3.277[1.358-7.665]	0.008
Female	Ref.	Ref.		
Knowing PM+ intervention				
Yes	Ref.	Ref.	1.771[0.534-5.872]	0.041
No	2.763[1.246-6.127]	0.012		
PM+ designed for adult people				
Yes	Ref.	Ref.	2.487[0.821-7.537]	0.107
No	4.182[1.856-9.422]	0.001		
PM+ patients are referred from HC& community				
Yes	Ref.	Ref.	1.276[0.322-5.056]	0.729
No	2.827[1.036-7.714]	0.042		
Knowing that PHQ9 is a tool used during screening				
Yes	Ref.	Ref.	12.749[0.751-216.377]	0.028
No	10.194[1.788-58.105]	0.009		
Knowing that PM+ is made of five sessions				
Yes	Ref.	Ref.	0.234[0.003-1.024]	0.996
No	20.516[2.217-189.815]	0.008		
PM+ must be delivered by trained HCPs				
Yes	Ref.	Ref.	0.126[0.002-1.014]	0.997
No	5.032[1.194-21.208]	0.028		
Level of knowledge towards PM+				
Low	3.194[1.482-6.884]	0.003	0.921[0.249-3.405]	0.902
High	Ref.	Ref.		

Table 2: Multivariate analysis of Factors Associated with PM+ Intervention Practice

Discussion

The first objective of the study was to assess the level of knowledge of HCPs in Burera District. Findings from this study revealed that the healthcare professionals with low level of knowledge in PM+ are 57.4% and among them, 30.8% have Bachelor's degree; these percentage is lower compared to the study done in Ethiopia where 50.3% with Bachelor's degree has lower knowledge [14] [12]., this percent is also lower compared to the study conducted in Iran where 73.6% of respondent have a limited knowledge on alternative medicine as PM+ is. [15]. In addition, this can be explained by the fact that the study population in this study was limited to Burera District while for the other studies, they covered the whole countries. The finding showed that 57.4% have low knowledge in complementary/alternative therapy /psychotherapy and this is associated with education curriculum in school of health sciences as it is in line with the study done by The second objective of this study was to assess the level of attitude among HCPs toward PM+ in Burera District [16]. The findings of this research revealed that 51.8 percent of respondents have positive attitude, which is different from the study conducted in Malaysia where 4.6% of participants had negative attitudes towards CAM [17]. It is also different from the study conducted in Nigeria which reveal 25.3% of medical students with poor attitude towards complementary therapy use [18]. The third objective of this study

was to determine practices of health care professionals towards Problem Management Plus in Burera District.

The findings of this study reveal that 82.1% of respondents in our research have poor practice, which is high compared to the study conducted in Ethiopia where 48% of health care professionals have poor practice [12]. But the effort is needed in both countries as they still have a significant rate of poor practice. The result from factors associated with practice revealed that the odds of practicing PM+ intervention among respondents who did not know it versus those who knew it; the odds were 1.771 times (AOR=1.771; 95%CI: [0.534-5.872], p=0.041 as the study done in Ethiopia confirm that ,48% of health care professionals have inadequate knowledge had poor practice compared to 95% of health care professional with adequate knowledge [12]. The last objective was to establish factors associated with practice of Problem Management Plus in Burera District.

Conclusion

The KAP of healthcare professionals toward PM+ intervention was low compared to the rate revealed by other studies in some countries; this requires to go on a long journey to increase the Knowledge, Attitudes and Practice of HCPs toward the mentioned intervention by training and encouraging them on his use. To increase the level of knowledge and practices among HCPs, some activities should be put into action like revision of curriculum in health science, continuous training in Rwanda health system, mentorship and monitoring and evaluation to ensure consistency change.

What is Already Know on This Topic?

• The adaptation of PM+ intervention in different countries and settings include Rwanda
• The effectiveness of PM+ intervention in different countries include Rwanda.

What This Study Adds

• The level of Knowledge among HCPs in Burera District, North Province of Rwanda.
• The level of Attitude among HCPs in Burera District, North Province of Rwanda.
• The level of Practice among HCPs in Burera District of Rwanda, as it was in low and middle-income countries.
• The factors associated with PM+ practice in Burera District, North Province of Rwanda.

Competing Interests

The authors declare no competing interest.

Authors' Contributions

Selection of research topic, study design, data collection, acquisition of research permit, training of data collectors after getting the research permit from Mount Kenya University and Butaro District Hospital, data entry, data analysis and interpretation of data, drafting the manuscript, payment of the cost of the study: Janvier Hakizimana under kind guidance, correction and support of Dr Nasiru Sani, PhD as Supervisor and Habtu Michael as Co-Supervisor. Decision to prepare and submit the manuscript for publication: Janvier Hakizimana and Dr Nasiru Sani, PhD, Habtu Michael. Jean Nepomuscene Renzaho helped in training data collectors, data collection processes, analysis and in preparing the manuscript.

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