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UTILIZATION OF MENTAL HEALTH SERVICE BY ZAMBIA DEFENCE FORCES PERSONNEL AND THEIR CARETAKERS AT MAINA SOKO MEDICAL CENTRE, LUSAKA, ZAMBIA

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Abstract:
Globally, mental health is recognized as an important component of health, despite it being one of the most neglected conditions in the health sector. In many cases, people seek out a mental health expert only after a crisis has occurred. The aim of the study was to determine the factors affecting the utilization of mental health services in the Zambia defence force in Lusaka at Maina Soko medical centre in Lusaka district. The study was conducted among patients, family members and members of staff from Maina Soko Medical Centre. A descriptive cross-sectional design was used. Firstly, a pilot study was carried out at Arakan Garrison Hospital in Lusaka before conducting the actual study. A simple random sampling method was used to select 167 study participants. Data was collected using a structured interviewer-administered questionnaire. Data for all the respondents were entered and analyzed using the Statistical Package for Social Sciences Software (SPSS). Using SPSS, frequency tables, pie charts and cross-tabulations were carried out to determine special relationships between dependent and independent variables. A chi-square test was carried out to test

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associations among variables. With the confidence interval set at 95 percent, the P-value was used to ascertain the degree of significance by using the decision rule which rejects the null hypothesis if P-value is equal or less than that of 0.05. The findings revealed that 86 percent of the respondents who had no knowledge about mental health services never utilized mental health services (p-value 0.011), 73 percent of respondents who had no social support never utilized mental health services (p-value 0.020), 80 percent with moderate combat exposure utilized mental health services (p-value 0.039) and 88 percent revealed the emotional challenges they face due to stigma and hence compromise on seeking mental health services (p-value 0.066). Overall, the findings have important implications for research policy and programme efforts towards improved utilization of mental health services and designing interventions to mitigate mental illness and its determinants.

Keywords: stigma, combat exposure, knowledge, social support, utilization of mental health services

1. Introduction

Globally, mental health is recognized as an important component of health, despite it being one of the most neglected conditions in the health sector (Paparella, 2015). In their publication, Sharp et al., 2015 reported that 40 -60% of military personnel who experience mental health problems do not seek help. Similarly, it was noted that people with mental health problems seek care from experts only after a crisis has occurred and yet getting help earlier, can prevent mental health conditions, such as depression and anxiety (Murray, 2018). The world health organization states that Common mental disorders (CMD) can be classified as depressive disorders and anxiety disorders and they are the leading cause of disability worldwide (Vos et al., 2010). Further, the WHO defines Depressive disorders as major depressive disorder and dysthymia, while anxiety disorders are defined as a generalized anxiety disorder (GAD), panic disorder, phobias, social anxiety disorder, obsessive-compulsive disorder (OCD) and post-traumatic stress disorder (PTSD).

Globally, it is estimated that 792 million people live with a mental health disorder which translates to more than one in ten people (10.7%) (Hannah and Max, 2018). Despite having evidence of effective treatment for CMD, there is a large "treatment gap" with only 42-44% of those affected worldwide seeking treatment from specialists and non-specialists, in the public or private sectors (Kohn et al., 2004). This proportion is much lower in low- and middle-income countries, such as Zambia with estimates of as little as five percent seeking treatment, even when traditional providers are also included (Wang et al., 2007).

The utilization of mental health services has been a common problem across the globe. Despite having a high prevalence of depression and suicidal behaviours in the general population, utilization of mental health services has been extremely low

(Augsberger et al., 2015). Mental health disorders are one of the major causes of disabilities worldwide, accounting for 37 percent of all healthy life years lost through disease. Payment for transport to a mental health facility is usually out of pocket, and as a result, the cost of procuring treatment contributes to the problem of utilization of services, even after treatment has been initiated. Although mental health care is important for the general population, it is particularly important for people with disorders who are poor and have to travel long distances to access services.

For example, in Zambia, there are psychiatric units within seven general hospitals with Chainama Hills Hospital in Lusaka being the only third-level mental health hospital in the country (Mwape et al., 2010). It is estimated that 200,000 people in Zambia suffer from mental disorders (of an adult population of 5,000) and only 2,667 patients per 100,000 population are admitted to Chainama and Psychiatric Units around the country (Mwape et al., 2008). These figures show the underutilization of mental health services.

Defence personnel experience mental health challenges that are unique due to various factors such as combat exposure which is associated with mental health disorders and Defence Force members see this as a requirement for treatment (Sareen et al., 2010). Combat exposure is the combat-related stressors that military personnel have either been through first-hand or experienced as a witness (Mile, 2020). Service members are exposed to traumatic events during the war. If you were deployed to a combat zone, you may have been in life-threatening situations. Or, you may have seen injury or death, been in a serious accident or handled human remains. A study conducted by Gorman et al., 2015, reported that those with PTSD have high levels of comorbid major depressive disorder, alcohol use disorder and risk for suicide. The stress encountered while serving within Zambia and while serving abroad, plays a role in mental health issues including anxiety, posttraumatic stress disorders (PTSD), depression, and substance abuse, among others which may determine one's mental health service utilization.

Most of the medical evacuations done during deployments are mental illness-related. For instance, in 2017 in Zambia, about five military personnel were evacuated from various operational areas of which four were post-traumatic stress and substance misuse disorders (Maina Soko Medical Centre, 2019). In the same year, about seven military personnel appeared for disciplinary action and it was concluded that all of them had substance use problems and violence-related cases. Given the high level of defence personnel not seeking mental health services, it is important to understand factors associated with mental health service utilization to ensure the system is equipped to treat those with an identified need.

2. Literature Review

2.1 Overview of Utilization of Mental Health Services at Global Level

Mental health services have been routinely underutilized. Under-utilization of mental health services has been identified as a feature of mental health in most military hospital settings. To achieve adequate access to mental health services among Zambia Defence Forces personnel, it is important to identify barriers and facilitators to service utilization in order to alleviate suffering amongst service personnel.

Smith et al. (2015) study on US veterans revealed that age was the greatest predictor of utilization of mental health services, with younger adults (aged between 18 and 35) being three times more likely to use mental health services compared to older adults, due to concern about the cost of treatment, difficulty travelling to appointments, doubt regarding treatment efficacy, stigma about mental health and poor knowledge of mental health services by older adults.

Contrary to some previous studies, Gretchen et al. (2015) found that increased age was associated with fewer barriers to seeking mental health treatment. The old may perceive fewer barriers to mental health care because they have developed successful strategies for overcoming these barriers. As people age and develop more health conditions, they may be more likely to have developed solutions to overcome obstacles to receiving health care. Alternatively, older adults may have fewer competing demands for their time and resources.

Higher educational levels have been associated with a greater likelihood of receiving any mental health services than clients with low education. Higher education may increase a client's willingness to seek mental health services (Murray, 2018). One study noted that Black and Minority Ethnic Community in Southeast England cited lack of awareness of services as a perceived barrier to accessing mental health services (Memon et al., 2016). Similarly, Tirintica et al. (2018) found that a lack of knowledge contributed to the underutilization of mental health services among residents of South-Eastern Europe. Ashley et al. (2016) established that women utilize mental health services more often than men do. They further showed that for both physical and mental health concerns regardless of age, nationality, race, ethnicity, or parents' status, men tend to underutilize mental health services. In a similar study, Ilyas et al. (2019) systematic review and synthesis of behaviour change techniques within interventions targeting help-seeking revealed that males were less likely to receive any help compared to females partly as men cope with mental health difficulties differently compared to women, demonstrating an increased tendency to self-medicate with alcohol and drugs to alleviate emotional distress.

Shervin and Caldwell (2017) have found that low socioeconomic status was one of the reasons minority individuals including blacks underutilize health care. Similarly, Oliviette and Biracyaza (2021) in Rwanda found that most of the participants described the inability to buy the prescribed medication due to lack of money and that their health insurance did not cover the prescribed medications. Contrary, Sripada et al. (2015)

study on socioeconomic status and mental health service use among National Guard soldiers found that socioeconomic status was not associated with overall use but was associated with the use of certain types of services. Higher socioeconomic status was associated with a lower likelihood of psychotropic medication use, and higher socioeconomic status strengthened the positive relationship between PTSD and the use of individual therapy.

Roberts et al. (2018) found that needs factors, such as symptom severity, are robust predictors of mental health service utilization among the adult population in low- and middle-income countries. It was found that adults with Common Mental Disorders (CMD) were generally reported to be associated with an increased likelihood of seeking treatment than adults without common mental disorders. Although in some lower- and middle-income countries, suitable mental health services are available, the cost of these services is not affordable for patients and their families. A similar study by Mwansisya et al. (2015) among adults in Dodoma municipality in Tanzania reported cost of services, lack of transport, long-distance, unawareness of services, lack of professionals, poor services and discrimination as barriers to the utilization of mental health services.

In a national survey conducted by Marie et al. (2014) noted that social support was a protective factor against mental disorders and a strong predictor of healthcare service utilization for mental health reasons. It was found that a person typically does not make health-related decisions alone or rationally; rather, spouses and relatives can help individuals recognise their problems and seek help from mental health care services. When family members identify mental health services as a resource, they are more likely to seek them out. Another study by Cooper-Patrick et al. (2003) on college students, found the use of family and friends as sources of help-seeking compared to the use of speciality mental health services. Research by Corrigan et al. (2014) suggests that the concern of stigmatization impedes the help-seeking behaviours of Asian Americans. It was found that Stigma is a complex construct that includes public, self, and structural components which directly affect people with mental illness, as well as their support system, provider network, and community resources. In their early study, Lin et al. (2008) documented poignant examples of this delay in the help-seeking process. They described Chinese Canadian families who resisted seeking psychiatric assistance for their schizophrenic sons. They attempted to try to confine their family member in the home for as long as possible until their behaviour became unmanageable and/or violent.

2.3 Combat Exposure

Various studies revealed that poor mental health and quality of life are common among service members exposed to trauma and may be more pronounced among those injured on combat deployment (Cameron et al., 2019). Maguen et al. (2007) found that illness-based need was associated with reported treatment-seeking is consistent with previous findings in both veteran and civilian populations. A study among National Guard

soldiers in the first year following a combat deployment to Iraq or Afghanistan showed Combat exposure to be associated with mental health disorders and service members' perceived need for treatment (Gorman, 2015). Any mental health use was associated with need variables including a number of mental health conditions, combat exposure, and poorer physical health. A large study examining the trajectories of PTSD symptoms in 8,178 military service members over 10 years found those who were combat-deployed had higher PTSD symptoms than those who were non-combat deployed (Donoho et al., 2017). Similarly, Binan et al. (2018) in their study among military combatants in the North-Eastern part of Nigeria found a significant increase in sleep difficulties, anhedonia, irritability and anger, concentration problems, hypervigilance, exaggerated startle, detachment from others, restricted emotional experiences and these are the determinants of mental health service utilization. Contrary, Emily et al. (2016) found that 51% of soldiers who screened positive for PTSD and 40% who screened positive for depression did not report involvement in mental health treatment, suggesting the influence of factors other than illness-based need.

2.4 Stigma

In the United States, a study conducted on different military personnel subgroups has shown that the negative or discriminatory attitudes that others have about mental illness may also be compounded among military personnel to the extent that individuals who experience mental health problems fear negative career consequences. In contrast to the civilian workplace, in which mental health records are typically not available to supervisors, in the military, each service member's commanding officer has access to his or her mental health records, and those who are seen as "unfit" for service may be discharged or removed from duty (Lito et al., 2016). A similar study in the United Kingdom by Victoria et al. (2019) on UK Armed Forces personnel and veterans with and without probable mental disorders revealed that those meeting criteria for probable common mental disorders (CMD) and PTSD were significantly more likely to report concerns relating to perceived and internalized stigma and barriers to care compared to participants without a likely mental disorder.

The study in Sudan by Ali and Agyapong (2016) revealed that barriers to accessing mental health care were due to fear of stigma, concerns about other people's criticisms, patient's position at work and patient's social relationships. One of the caregivers reported that to avoid stigma they take patients to traditional healers which are accepted in the community. Another interviewee suggested that the name psychiatry should be removed from mental hospitals as a way of reducing the stigma associated with such facilities.

The literature review for this study focused on what other researchers have studied and written about factors that affect the utilization of mental health services which included poor knowledge of available services, accessibility, cost, and negative perceptions about the health care system.

Finally, it is noted from the above literature reviewed, it is evident that utilization of mental health services is low and many factors are associated with determinants of utilization as cited by many authors. From the studies cited above, some of these factors cannot be changed by mental health practitioners or the government such as gender, personal beliefs, educational level, and age. However, the factors can be used by mental health practitioners to help identify those patients who are at high risk for low mental health utilization so that they can receive the appropriate mental health services at the required time. Alterable factors, such as distance, knowledge and infrastructure that hinder the utilization of mental health services should be taken into consideration and have them tackled by the relevant authorities. Many determinants of the utilization of mental health services are common in both developed and developing countries, such as personal beliefs, cost of service, lack of knowledge, and stigma.

It is clear from existing literature that the area of mental health utilization the world over is still relatively unexplored as evidenced by few pieces of literature available. Therefore, to improve mental health service utilization, and get rid of the existing barriers to mental health services in Zambia, more research is required.

3. Methodology

A descriptive cross-sectional quantitative study was conducted between January and March 2022 on 167 Zambia Defence Force personnel at Maina Soko Medical Centre.

Maina Soko Medical Centre is found in the Lusaka province of Zambia. The study site was chosen because it had participants from all three services (Zambia Army, Zambia Air Force and Zambia National Service) which forms the Zambia Defence Force. Further, the research site was convenient to the researcher as this is where the researcher lived, therefore, community entry was easy.

Data was collected from consented participants using a self-administered questionnaire adopted from 3 validated tools namely; Self Stigma of Seeking Help (SSOSH), Combat Exposure Scale (CES) and Mental Help Seeking Attitude Scale (MHSAS). SPSS version 21 and binary logistic regression were used to establish the relationship between mental utilization of mental health services and the perceived determinants of service use which were stigma, combat exposure and social support.

a. Inclusion criteria

Stable male and female clients from Zambia Defence Force were willing to consent to participate in the study. And caretakers seeking mental health services and health workers attending to patients.

b. Exclusion criteria

In this study, acutely ill or those in a confusional state and those that had not consented to take part in the study were excluded.

3.1 Procedure

Self-administered questionnaires were given to the selected participants and participants were given time to complete them. The researcher collected the questionnaires and checked them thoroughly for completeness.

3.2 Statistical Analysis

Before data entry was done the responses were coded in line with the categories that each variable was assigned. The responses were then entered and analyzed using the statistical package for social sciences (SPSS) version 21. Pearson's Chi–Square ($\chi 2$) test was used to determine the association between the dependent and independent variables. The cut-off point for statistical significance was set at 5 percent. Therefore, only P-values of less than or equal to 0.05 were considered to be statistically significant. Binary logistic regression analysis was performed using the utilization of mental health services as the criterion variable and stigma, combat exposure and social support to access service use as predictor variables. This was done in order to determine the extent to which the independent variables affected the dependent variable in this study population.

3.3 Ethical Consideration

Permission to conduct the study was sought from the University of Zambia Biomedical Research Ethics Committee (Ref no. 1712-2021), National Health Research Authority (Ref no. NHR A00016/18/08/2021) and from the Management of Maina Soko Medical Centre, where the study was undertaken. Full information about the nature and purpose of the study was provided to the respondents. The questionnaire, consent form and participant information sheet were translated into the local language (Nyanja) for easy understanding. The respondents were assured of confidentiality and that no information obtained from them will be used by their superiors to harm them or their careers. After comprehending the information given to them, they were asked to voluntarily sign consent forms before the study to acknowledge participation in the study without the use of coercion. It was also made clear to them that if they felt like withdrawing from the study, they were free to do so at any point though the emphasis was made on the importance to participate in the study. Questions that were asked were tailored in a simplified, non-offensive and culturally sensitive language depending on the research site.

4. Results and Discussion

Table 1: Demographic characteristics (n = 167)

Characteristic		**Frequency**	**Percentage (%)**	**% of total sample n (%)**
Sex	Female	62	37.1	167 (100)
	Male	105	62.9	
Age	25 – 29	19	11.2	167 (100)

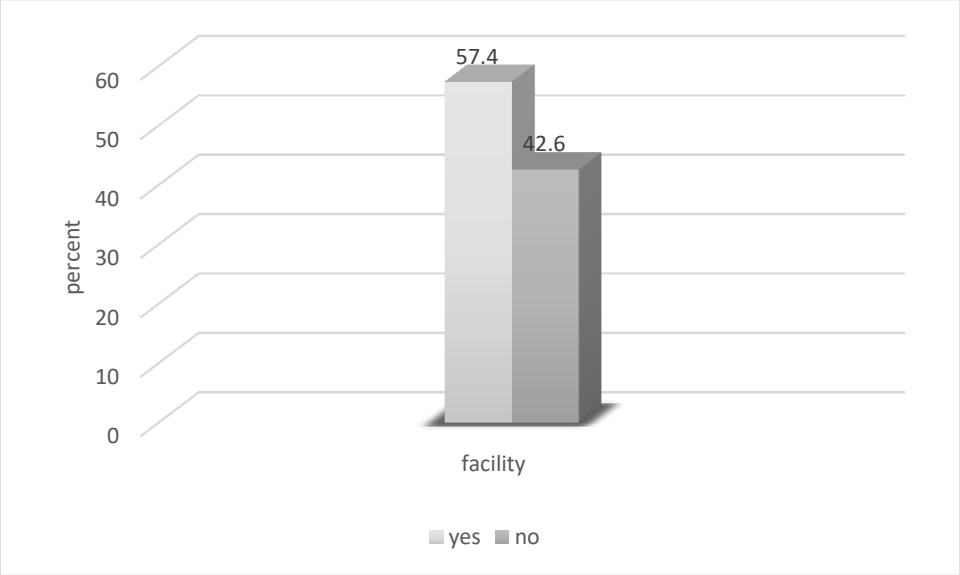
	30 – 34	23	13.9	
	35 – 39	38	22.6	
	40 and above	87	52.2	
Marital status	Single	26	15.7	167 (100)
	Married	134	80	
	Divorced	3	1.7	
	Widowed	4	2.6	
Religion	Christian	167	100	167 (100)
Level of education	Primary	10	6.0	167 (100)
	Secondary	43	25.7	
	Tertiary	114	68.3	
Occupation	Military personnel	115	69	167 (100)
	Health personnel	27	16	
	Others	25	15	

The table shows that most of the respondents' 62.9 percent of 167 participants who were recruited were males while the remaining percentage were females. In terms of age, 52.2 percent of 167 respondents were above 40 years while 11.2 percent (19) were between 25 - 29 years old.

Further, 80 percent of 167 participants were married, all respondents were Christians (100 percent), 68.3 percent of 167 had tertiary education and 69 percent of 167 were military personnel.

4.1 Utilization of Mental Health Services

Figure 1: Facilities in the area



4.2 Mental Health Facility in the Area (n=167)

The bar chart shows that 57.4% of 167 participants had mental health services in facilities in their residential area while 42.6 percent did not have.

Table 2: Utilization of mental health services (n=167)

No. of times	Frequency	Percent (%)
More often	23	14
Not often	60	36
Never	84	50
Total	**167**	**100.0**

The table above shows that 50% of 167 participants had never sought mental health services before.

Table 3: Seek mental health services on or off military installation (n=167)

Preference	Frequency	Percent (%)
On	19	11.3
Off	148	88.7
Total	**167**	**100.0**

The table illustrates that 88.7% of 167 participants preferred to seek mental health services off military installations while only 11.3 percent indicated they would prefer military installations.

Table 4: Reason for seeking mental health services off military facility (n=167)

Reasons	Frequency	Percent (%)
Stigma	132	79.1
Lack of specialists	16	9.6
Total	**167**	**88.7**

The table above demonstrates that 79.1% of the 167 participants indicated that the reason for seeking off military facility is fear to be stigmatized while 9.6 percent indicated that its due to a lack of specialists.

Table 5: Have you ever utilized mental health services (n=167)

Utilization	Frequency	Percent (%)
Yes	67	40.2
No	100	59.8
Total	167	100.0

The table above shows that 59.8% of 167 participants reported not having utilized mental services while 40.2 % have utilized mental health services before.

4.3 Stigma

Table 6: Self-stigma (n=115)

Utilization	Frequency	Percent (%)
Yes	24	20.9
No	91	79.1
Total	**115**	**100.0**

The table above shows that 79.1% of 115 participants never reported suffering from self -Stigma when seeking mental health services.

Table 7: Public stigma (n=115)

Utilization	Frequency	Percent (%)
Yes	84	73.0
No	31	27.0
Total	**115**	**100.0**

The table above shows that 73% of 115 participants reported suffering from public stigma when seeking mental health services.

4.4 Combat Exposure

Table 8: Degree of combat exposure (n=115)

Utilization	Frequency	Percent (%)
Light	67	58.3
Light-moderate	30	26.0
Moderate	14	12.2
Moderate to heavy	4	3.5
Total	**115**	**100.0**

The table above shows that 58.3% of 115 participants experienced light combat exposure while only 3.5 percent experienced moderate to heavy combat exposure.

4.5 Attitude

Table 9: Attitude towards seeking metal health services (n=167)

Attitude	Frequency	Percent (%)
Favourable	144	86.1
Unfavourable	23	13.9
Total	**167**	**100.0**

The table above shows that 86.1% of 167 participants had favourable attitude towards seeking metal health services while 13.9 percent indicated unfavourable attitude.

4.6 Caretakers

Table 10: Sufficient manpower

Manpower	Frequency	Percent (%)
Sufficient	6	24.0
Insufficient	19	76.0
Total	**25**	**100.0**

The table shows that 76% of 25 participants reported that there is no sufficiently trained manpower to take care of their patients.

Table 11: Feel stigmatized

Stigma	Frequency	Percent (%)
Yes	22	88.0
No	3	12.0
Total	**25**	**100.0**

The table above shows that 88% of 25 participants felt stigmatized by the public when seeking mental health services.

4.7 Staff Members

The total number of staff members who participated in this study was 27.

Table 12: Challenges and obstacles at the policy level (n=27)

Challenges at policy level	Frequency	Percent (%)
Inadequate allocation of resources for Mental health services	17	63.0
No policy guideline	10	37.0
Total	**27**	**100.0**

The table shows that 63% of 27 participants revealed that inadequate allocation of resources for mental health services was a major challenge and obstacle at the policy level while 37 percent revealed that lack of policy guidelines was a major challenge

Table 13: Challenges at facility level (n=27)

Challenges at the facility level	Frequency	Percent (%)
Lack of manpower	10	37.0
Lack of mental health facilities/drugs	13	48.1
The mental health department is little recognized hence the poor referral system	4	14.8
Total	**27**	**100.0**

The table above shows that 48.1% of 27 participants cited a lack of drugs as a major challenge at the facility level and 37 percent of 27 participants reported a lack of manpower at the facility.

Table 14: Challenges at the individual level (n=27)

Challenges at the individual level	Frequency	Percent
Fear of being stigmatized	21	77.8
Lack of information about mental health	6	22.2
Total	**27**	**100.0**

The table above demonstrates that 77.8% of 27 participants cited fear of being stigmatized as a challenge at the individual level while 22.2 percent revealed that lack of information about mental health was a major challenge.

Table 15: Association between independent variables and utilization

Characteristic		% of total sample n (%)	% who utilized	P value	Odds Ratio (95% CI)
Characteristics of study participants related to utilization of mental health services (n=167)					
Knowledgeable	Yes	145 (87)	42	0.011	0.15 (0.03, 0.87)
	No	22 (13)	14		
Stigma	Yes	122 (73)	43	0.006	0.07 (0,01, 0.59)
	No	45 (27)	90		
Attitude	Favorable	144 (86)	49	0.689	0.59 (0.10, 3.38)
	Unfavorable	23 (14)	57		
Characteristics of study participants related to the utilization of mental health services (n=115)					
Social Support	Yes	78 (68)	(50)	0.020	2.14 (0.74, 6.20)
	No	37 (32)	(27)		
Combat Exposure	Light	67 (58)	46	0.190	
	Light-Moderate	30 (26)	47	0.778	0.80 (0.23, 2.80)
	Moderate	14 (12)	80	0.039	0.16 (0.03, 0.94)
	Moderate-Heavy	4 (3)	25	0.805	1.80 (0.16, 20.40)

Table 15 shows relationships between independent variables and utilization of mental health services. Out of these factors, only knowledge, stigma, moderate combat exposure and social support showed a statistically significant relationship with the utilization of mental health services. Respondents who suffered stigma were 74% (OR = 0.07; 95% CI: 0.01, 0.59) (P value = 0.006) less likely to utilize mental health services. Respondents who experienced moderate combat exposure were 74.2% (OR = 0.16; 95% CI: 0.03, 0.94) (P value = 0.039) more likely to utilize mental health services.

5. Discussion

5.1 Demographic Characteristics

In this study, the majority (52.2%) of the respondents were aged 40 and above, 22.6 percent were between the age range of 35 – 39 years old and the youngest participants were age range of 25 – 29 years (11.3%). These findings are similar to those reported by Goldsbury et al. (2018) who revealed that there was high use of hospital care among older persons which tends to increase towards the end of life.

The study also found that the majority (62.9%) of the respondents were males whereas 37.1 percent were females. These results demonstrate that the defence force was dominated by male personnel.

In addition, the study observed that the majority (80%) of the participants were married. This finding resonates with the conclusion made by the Zambia Statistics Agency (2006) where it was cited that marriage is highly valued in Zambia and therefore, the expectations of society are that every young person has to get married and produce children.

Furthermore, the study also revealed that all participants (100%) were Christians. This may be influenced by the declaration that Zambia is a Christian nation as contained in the 1996 constitution (Zambia Statistics Agency, 2010).

In terms of education, the study found that the majority (68.3%) of the respondents had attained tertiary education followed by 25.7 percent who had attained secondary education while 6 percent attained primary education. This finding suggests that for people to join the military they may need to attain tertiary education.

With regards to employment, the study revealed that 69 percent of the participants were military personnel while 15 percent were just caretakers/family members. This finding suggests that people with combat exposure are more likely to seek mental health services within military facilities. As for caretakers, this study confirms the findings from the study conducted by Glover (1998) which concluded that people from low socioeconomic status are more likely to encounter various challenges in accessing mental health services such as limited time to seek care, limited resources to afford the cost and difficulties with transportation. In future, studies with more focus on age, sex, employment, marital status and utilization of mental health services are therefore suggested.

5.2 Stigma and Utilization of Mental Health Services

Stigma still remained a great hindrance to the utilization of mental health services. The caretakers and healthcare providers interviewed acknowledged how stigma was a challenge for the patients. Mockery from the community and from the place of work caused problems in the care of the patients.

The caretakers interviewed revealed the emotional challenges they face due to stigma. They mentioned that stigma still remains a great barrier as they feel ashamed of the condition their relative was having and most of them went into isolation as a coping strategy. This resulted in families hiding their patients and hence compromised on seeking mental health services. The health personnel who wanted to take on mental health courses also feared being stigmatized and hence ended up abandoning the course which has resulted in a shortage of man power at the facility level to take care of mentally ill patients. The patients also expressed displeasure with how they are treated by their superiors at work once the record of having mental health issues is documented on their file or when they know that they are seeing a mental health provider. They said there are given less responsibility if the chain of command became

aware that they are seeing a mental health provider. The findings showed a statistically significant relationship between the utilization of mental health services and stigma beliefs (OR 0.066, p = 0.006, 95% CI).

This is in line with Ali and Agyapong (2016) writing from Sudan who revealed that barriers to accessing mental health care were due to fear of stigma, concerns about other people's criticisms, patient's position at work and patient's social relationships. Contrary to the above findings, Aromaa et al. (2011) revealed that stigma does not prevent utilization of mental health services if depression is serious and views about antidepressant medication are realistic.

This discrepancy in the findings may be due to the difference in research settings as Aroma et al. did their research among people with depression in the general population while this research was conducted among Defence Force personnel with different mental illnesses. The other discrepancy may be due to the complexity of the concept of stigma and thus differences in measuring stigma.

Another possible explanation for this inconsistency in the findings may be the difference in study samples. The study in Finland used only people with depression (sample size of about 5160) while the current study took samples (of about 167 respondents) from the general population.

Further research on this topic needs to be undertaken before the association between stigma and the utilization of mental health services is more clearly understood.

5.3 Combat Exposure and Utilization of Mental Health

The degree of combat exposure is still held as a determinant for the utilization of mental health services. Utilization was higher among those with a higher degree of combat exposure compared to those with a lower degree of combat exposure. This suggested that mental health services need to be provided to military personnel prior to and after deployment for early detection and treatment of mental breakdowns. The research results showed a significant relationship between moderate combat exposure and utilization of mental health services (OR 0.16, P= 0.039, 95% CI:0.03, 0.94). These results were in line with Cameron et al.'s (2019) study which found that poor mental health and quality of life are common among service members exposed to trauma and illness-based need for the service was associated with reported treatment-seeking. The study also revealed that military personnel with moderate–heavy combat exposure are 1.8 times more likely to utilize mental health services (95% CI: 0.16, 20.40) though these findings were not statistically significant.

Contrary to the above findings, Emily et al. (2016) found that 51% of soldiers who screened positive for PTSD and 40% who screened positive for depression did not report involvement in mental health treatment, suggesting the influence of factors other than illness-based need.

This rather contradictory result may be due to the difference in the study population as Emily et al.'s study involved service members only with depression and

PTSD when compared to this study which was done among service members with different mental health issues therefore, further research is required.

5.4 Knowledge on Mental Health Services and Utilization of the Services

The study findings showed that there was a relationship between knowledge and utilization of mental health services (OR = 0.15, 95% CI: 0.03, 0.87, p = 0.011).

Lack of information about mental health conditions was reported as being the missing link in mental health care. All the family members acknowledged that prior to having a patient within their household, they had little or no knowledge about mental health conditions. Facing the condition was what made them more aware and knowledgeable. Most family members did not know where to get help when affected by mental illness hence most of them sought help from traditional healers and churches. They also alluded to the fact that if they had known more about the conditions, it would have made the whole experience of taking care of their family members much easier.

These findings were in line with Tirintica et al. (2018) study which found that a lack of knowledge contributed to the underutilization of mental health services among residents of South-Eastern Europe. Data could not be found that indicated no relationship between lack of knowledge and utilization of mental health services. Literature has shown that people utilize the services when they have information about their existence. This study finding, however, could have been influenced by the use of convenient sampling in selecting the study sites and sample size therefore further research is required.

5.5 Social Support and Utilization of Mental Health Services

The findings showed that there was a statistically significant relationship between the utilization of mental health services and social support (OR= 2.14, 95% CI: 0.74, 6.20, p = 0.020).

These findings were in line with Derr (2014) study which reported that social relationships can help navigate barriers to mental health care and facilitate access to needed services. Informal networks such as family, friends, and religious leaders were particularly important sources of support for most of the respondents. Most of the respondents without social support were less likely to seek mental health services. Data could not be found that indicated no relationship between social support and utilization of mental health services. Again, reviewed literature showed that people utilize the services more when they have social support. This study found, however, could have been influenced by the use of convenient sampling in selecting the study sites and sample size therefore further research is required.

6. Recommendations

Based on the findings, the study recommends that:

- The Ministries of Health and Defence engage traditional and civic leaders in the community to sensitize the public on the utilization of mental health services. The sensitization should be done through mass media, leaflets, booklets and community campaigns to improve education, attitude and knowledge towards mental illness.
- The Ministry of Health and Defence should increase funding to mental health training schools in order to train more mental health staff, who subsequently will improve the quality of mental health services.
- Maina Soko Medical Centre in collaboration with mental health coordinators should develop an intensive Information, Education and Communication programme for sensitization of Battalion commanders, soldiers, families and communities on the importance of utilizing mental health services.

7. Conclusion

Mental health services are underutilized due to stigma, lack of knowledge, lack of social support and inadequate allocation of resources. Just as physical fitness is a central part of military life, good mental health is as important for personnel well-being, and military readiness, therefore, these barriers must be addressed. Therefore, interventions are urgently needed to address stigma, lack of knowledge, and lack of social support and improve on the allocation of resources towards mental health services.

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Conflict of Interest Statement
The authors declare no conflicts of interest.

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