A Descriptive Study on the Factors Influencing Readmission of Mentally Ill Adults at Chainama Hills College Hospital, Lusaka, Zambia

Vernon Johnson Moonga, Anatolii Tsarkov, and Petro Petlovanyi

**ABSTRACT**

**Introduction:** Mental illness is becoming a worldwide concern with at least one in four persons suffering from mental illness in both developed and developing countries. Mental illnesses account for about 14% of the disease burden worldwide and are projected to reach 15% in the future. Readmission to psychiatric wards of patients is one of the biggest challenges in the field of psychiatry and hence reduces the quality of life of individual patients as well as increasing the years of lost life of the patients.

**Objective:** This research aims at determining the factors influencing the readmission of mentally ill adults at Chainama Hills College Hospital (CHCH), Lusaka, Zambia.

**Method:** This was a quantitative cross-sectional study with a sampling of 94 patients, who seek service at CHCH. The data collection was done through a validated questionnaire. The questionnaire included demographic characteristics of patients, health facility factors associated with the readmission of psychiatric patients, and patient-related factors associated with the readmission of mental patients. Data were analyzed and processed using Statistical Package for Social Sciences (SPSS) version 25.

**Results:** The analysis and presentation of results in this research provide relevant evidence that can be used to meet the objective of this research. The results were presented with a 5% level of significance and 95% confidence. The Pearson Chi-square test was used with a (p-value of 0.232). These results have revealed there was no significant difference between the factors influencing the readmission of mentally ill adults.

**Conclusion:** No socio-demographic, factor was found to be strongly associated with readmission of psychiatric adult patients. Single, and unemployed patients were more frequently readmitted than the patients from other social groups. The young patients were readmitted more often than elders. Adult patients who stayed near the health facility were more likely to be readmitted than those who stayed far away. Stress had some association with readmissions.

**Keywords:** Admission to psychiatric hospital, mental health treatment, psychiatric rehabilitation, readmission to psychiatric hospital.

I. **INTRODUCTION AND THE RATIONALE OF THE STUDY**

According to the World Health Organization (WHO), mental illness is becoming a worldwide concern with at least one in four persons (25%) suffering from mental illness in both developed and developing countries [1]. Even children are highly vulnerable to different mental disorders [2]-[5]. The four main leading disorders are schizophrenia, depression, alcohol-related disorders, and bipolar (mood) disorders. Mental illness accounts for about 14% of the disease burden worldwide and is projected to reach 15% in the future [1]. It was estimated that about 11.5 million people in the world suffer from some type of mental disorder and depression being the most common [6]. Addictive disorders such as alcohol abuse, drug abuse, and smoking are well-known for high levels of readmissions [7]. The other types of addictions, such as problem gaming (ludomania) are also should be mentioned as this form of addiction is also difficult to treat (even during the first admission) [8].

Readmission to psychiatric facilities is one of the biggest challenges in the field of psychiatry and hence reduces the quality of life of the individuals affected by mental disorders patients as well as increasing the years of lost life of the patients [9]. The readmissions of mental clients to hospitals have become a major source of concern to policymakers because multiple readmissions are a sign that the level of care being provided by hospitals is low [10]. Most patients who get discharged from the hospital never want to be readmitted in a short time, though many of them find themselves back in
the hospital within a period of 30 days [9]. About one-third of patients admitted to psychiatric services will probably be readmitted within a year [11].

In Zambia, apart from Chainama Hills College Hospital (CHCH) which provides mental health services. The other institutions including University Teaching Hospital (UTH), Choma General Hospital (CGH), St Francis Hospital (StFH), and Senanga General Hospital also provide mental health services [12]. Being the only Referral National Mental (Psychiatric) hospital, CHCH, built in 1962 and located in the capital city of Lusaka, has a total of 210 beds for patients and on average, with annual admissions of 63.2 per 100 000 population and with 17% of the admissions that are involuntary [13]. CHCH has a few challenges that impact how efficiently it operates. Some of the many challenges include the lack of infrastructure development, and repair, inadequate human resources, and limited financial support for mental health research, and outreach services.

Hospital readmission frequency is an important indicator of the quality of care as it may result from actions taken or neglected during the initial stay at the hospital of the patients. The scrutiny of hospital readmissions is complicated because not all readmissions are inhibited, even with optimal care [7]. Due to illiteracy about the nature of the disease, non-drug compliance, side effects of the drugs, and lack of financial support among others increase the frequency of relapses of the most common psychiatric and neuropsychiatric disorders and even promote their frequent readmissions [2], [7], [14]-[17].

High incidence of readmissions impacts negatively patients’ lives and their well-being. Some patients lose their jobs and at times they are sidelined in their personal developmental projects, hence subjecting them to abject poverty and this act as a catalyst for relapses that lead to readmissions [13]. If this problem is not addressed, families will continue to breakdown, stigmatization of the mentally ill will keep going, the quality of health care to mental patients will be compromised and there will not be enough financial and human resources to manage the problem hence it is important to study the factors associated with readmission. Our study sought to focus on the factors influencing the readmission of mentally ill adults at CHCH.

Frequent hospitalizations for psychiatric reasons are a significant problem, particularly for individuals with serious mental illness. However, there is limited knowledge regarding the effectiveness of different hospital stay lengths, transition support services after discharge, short-term alternatives to re-hospitalization, and long-term approaches for reducing readmission rates [18]. Understanding the factors that contribute to readmissions is essential for effective management and early intervention. Such knowledge could help reduce the number of readmissions and hospital costs not only at CHCH but also at other National healthcare facilities. Additionally, policymakers and caregivers should focus on strategies to decrease the frequency of readmissions to CHCH and other psychiatric units/wards/departments.

A recent study revealed that 8% of discharged patients were readmitted to the hospital within 30 days [19]. The range of early readmission rates for mental health patients was found to be between 5% and 15%, which is consistent with previous studies. Surprisingly, the study did not find significant evidence to support the hypothesis that early hospital readmission is mostly linked to service use variables. Instead, the study showed that clinical variables were the most influential in explaining the variance in the final model, closely followed by service use variables. While sociodemographic variables, such as age and sex, were included in the analysis, they were only weakly associated with early readmission, consistent with previous studies [9].

In the report that was presented earlier, it was revealed that hospitals are exploring new strategies to minimize readmissions [20]. Several studies have highlighted various approaches to reduce the readmission rate, such as enhancing patient safety during hospital discharge, improving medication reconciliation, and facilitating the transition from inpatient to outpatient care settings [20].

Readmission is commonly utilized as a quality indicator or outcome measure for psychiatric inpatient services. If a patient is readmitted to the hospital soon after their previous discharge, it is frequently viewed as a failure of the previous hospitalization [21].

There are several factors associated with psychiatric readmission [7]. There is a known link between socioeconomic status and hospital admissions for mental illness. Overall, between 32% and 64% of the participants are readmitted to psychiatric hospitals more than once [6]-[7]. The most significant factor associated with early readmission is non-compliance with medication, defined as a patient missing their medication for two weeks or more. Additionally, African Americans and Hispanics have a relative risk ratio of 3.81 for consistently poor adherence compared to whites, and lack of family support or the absence of family members further contributes to non-adherence [21].

In 2011, one study was conducted to identify several factors associated with psychiatric readmission [7]. It was revealed that there is a known link between socioeconomic status and hospital admissions for mental illness. Additionally, this study revealed that over 64.1% of the participants were readmitted to psychiatric hospitals more than once, which differs from the findings of the study discussed above, which reported a 32.18% readmission rate within six months of discharge [6]-[7]. The most significant factor associated with early readmission was non-compliance with medication, defined as a patient missing their medication for two weeks or more. Additionally, other researchers have found that African Americans and Hispanics have a relative risk ratio of 3.81 for consistently poor adherence compared to whites, and lack of family support or the absence of family members further contributes to non-adherence [21].

A high risk for re-hospitalization within one month of discharge was associated with being out of the hospital for just a week following inpatient hospitalization. Non-compliance also led to an extended hospital stay. In 2010 Botha with their colleagues discovered that the average hospital costs for non-adherent inpatients were three times higher than the costs for adherent inpatients, although adherent inpatients had higher pharmacy costs than non-adherent inpatients [6]. Mukazungu stated that the success of treatment adherence was linked to the patient's role, their relationship with health services, and the quality of care provided, all of which necessitated a good interpersonal
relationship, knowledge, understanding, and techniques for maintaining treatment [7].

Very little has been done in Zambia to show factors that are associated with high rates of readmissions of mentally ill adults. This is due to a lack of research resources and some difficulties with psychiatric healthcare data [22]. Zambia is in the same region as Kenya and South Africa and has common customs and cultures with these countries; there is a high likelihood that high rates of readmissions could be associated with similar factors. However, Mayeya and their colleagues’ report shows that socioeconomic conditions contribute to mental health problems in Zambia [23]. The report further revealed that after patients undergo treatment at CHCH, most of them are segregated from the community, and such treatment predisposes them to a life of poverty, resulting in a high number of relapses leading to frequent readmissions among some of these people.

Niehaus with their colleagues suggested that marital status, unemployment, retirement, and gender were the most relevant factors related to readmission [24]. To improve patient management and enable early intervention, it is important to have a better understanding of the factors associated with readmission. By understanding these factors, the number of readmissions and hospital costs can be reduced. Repeat treatment-seeking behaviors by inpatients who seek readmission may assist healthcare workers in planning care.

Silva with their colleagues discovered an inverse association between age at first admission and multiple readmissions, indicating that younger patients at first admission had a higher likelihood of experiencing repeated readmissions, even after adjusting for current age [25]. The study also revealed that individuals with involuntary first admissions had higher odds of multiple readmissions than those with voluntary first admissions. The case-control study investigated factors linked to multiple psychiatric readmissions and included 307 patients in the case group and 354 patients in the control group, most of whom were unmarried. In terms of gender distribution, the case group had 214 males (69%) and the control group had 231 males (65%). Moreover, the case group was relatively younger at first admission than the control group (27.3 and 9.6 years and 30.7 and 11 years, respectively; p<.001).

Research has indicated that individuals with mental illness are more vulnerable to the negative effects of minor stressors such as grief from the loss of a loved one, unemployment, lack of social support, chronic interpersonal stress, poverty, homelessness, stigma, and victimization [2], [4], [26]-[28]. Among patients with schizophrenia, stressful life events were found to be associated with relapse and subsequent readmission to the hospital. Out of 217 patients, 134 (61.8%) had relapsed at least once, and it was observed that 14 stressful life events were commonly linked to the onset of a psychotic relapse leading to readmission [29].

In every country’s healthcare system, healthcare workers strive to provide top-quality care despite facing a growing patient burden and increasingly challenging working conditions [30]. However, in developing countries, such as those in sub-Saharan Africa, doctors, nurses, laboratory technicians, and pharmacists confront significant obstacles, including shortages of supplies, inadequate compensation, suboptimal management systems, and excessive workloads. Furthermore, patients in healthcare settings may not always receive the recommended treatment, which can have a profound impact on their well-being and future functionality. This issue has been documented in multiple studies [26], [27], [31]-[33].

Park and their colleagues stated that hospital readmissions were associated with poor discharge planning, mostly under the current cost policies, complications from medication, non-compliance with medication regimens, and early discharge to a location where the patient’s needs for post-hospital care were not met [34].

II. METHODOLOGY

This was a descriptive cross-sectional study (this design helps in collecting data by observing and analyzing processes from a population) and the quantitative approach to collect data was employed to determine the factors influencing the readmission of mentally ill adults at CHCH.

This research was done at CHCH, Lusaka, Zambia. CHCH is Zambia’s National Referral Psychiatric Hospital and is the ideal place for conducting the research. It gives the researcher no chance of manipulating or controlling the readmissions as was happening on their own. CHCH has a total of 210 beds and is supported by a network of smaller psychiatric units in provincial general hospitals.

The study population was consisting of eligible patients and caregivers of adult patients that were readmitted to CHCH during the period of study. The members were examined one after the other as they came for readmission and review. The targeted population was based on availability.

The sample was composed of randomly selected patients who were available during the period of data collection and who express their willingness to participate in the study. This was done using Cochran’s equation formula.

\[ n_0 = \frac{z^2pq}{e^2} \]

Where:
- \( n_0 \) = sample size,
- \( Z \) = the \( z \)-value corresponding to 95% confidence (1.96),
- \( p \) = 9.74 estimated prevalence,
- \( q \) = 100-\( p \),
- \( e \) = acceptable sample error (\( e \)=5) estimated prevalence is 9.74% of the patients who attended CHCH.

Using this figure in the above equation:

\[ o = 1.962 \times 9.74(100-9.74)/52 = 3.8416 \times 1218.36/25 = 4680.45/25 = 187.22 = 187/2 = 93.5. \]

The number of respondents who are going to be interviewed is 94.

The technique which was employed for this study was non-probability convenience sampling. Participants sampling to be enrolled in the study took place at the outpatient department (OPD) of CHCH. The OPD nurse in charge of the psychiatric unit was informed about the aim and procedures of the study and helped in identifying participants for the in-depth interviews. A purposive sampling strategy was
The researcher deliberately chooses the cases that would best contribute to the information needs of the study. The researchers worked with mentally ill out-patients and their caregivers who had experienced relapse and readmission in the mental health facility.

Independent variables included socio-demographic factors such as age, sex, occupation, level of education, and marital status; patient-related elements, such as substance abuse, history of suicide attempts, and history of physical or sexual abuse; psychosocial elements, including stigmatization, stress, social support, and lack of community care; the health system factors, including length of hospital stay, availability of medications, access to health services, staff attitudes, and referral follow up.

The dependent variable was the readmission of mental patients.

The primary data was gathered from caregivers of patients who had been readmitted for the cases and caregivers of those who had never been or had been admitted once for the controls.

The semi-structured interview questionnaire was used to collect data from the participants. They were both open-ended and closed-ended questions in the questionnaire and written in English but though translated into vernacular whenever necessary during the interview. The researchers had the responsibility for data collection which was conducted in the month of June 2022. A total of 94 questionnaire forms/copies were used. Since this is a descriptive and quantitative approach to research, hence the use of a questionnaire collects quantitative. Furthermore, it provides significant anonymity.

Data analysis comprises of examining the data in ways that reveal the relationships, patterns, and trends. Data were analyzed and processed using Statistical Package for Social Sciences (SPSS) version 25. Descriptive statistics including frequencies and percentages will be calculated for each item in the questionnaire. Data shall be summarized and organized in frequency tables, graphs, and charts. Inferential statistics with Pearson chi-square test of association was used to assist the association of demographic and socio-economic characteristics with the factors influencing the readmission of mentally ill adult patients. p-value <0.05 will be considered to decide a statistically significant association.

The tools used were pretested and the results from them were subject to random error. Trustworthiness was divided into credibility, transferability, reliability, and dependability.

After explaining to the respondent the purpose of the research and how the results will be utilized written consent was obtained. The information captured from the respondents was treated with confidentiality. A number of ethical considerations were put in place: approval to undertake this research was obtained from the Faculty Academic Ethics Committee and an introductory letter from Cavendish University Zambia which is the training institute. The information captured from the research was kept confidential and used for study purposes only. No names were used for the purpose of following the research ethical principles. Consent forms were also used in this study.

The consent for conducting the study was obtained from the appropriate ethics committee. Permission to conduct the research was also obtained in writing from the medical superintendent of CHCH and the Mulungushi University School of Medicine and Health Sciences Research Ethics Committee. Consent of the respondents to take part in the study was obtained prior to their inclusion. Major ethical issues in conducting research have major ethical issues such as informed consent as well as respect for autonomy, anonymity, confidentiality, and privacy have been considered for this study.

III. RESULTS

94 questionnaires were designed and distributed to patients that came to CHCH to seek medical attention. Out of the 94 questionnaires distributed, all questionnaires were filled and returned giving a return rate of 100%. Male respondents comprised 63.8% of the entire respondents while female respondents made up 37.2% of the respondents. There were thus more female respondents than males. The summary is presented in Table I.

The total number of respondents was 100%, of which those from 18-25 were 20.2%, those from 26-35 were 22.3%, those from 36-45 were 38.3%, those from 46-55 were 14.9%, and those above 55 were 4.3%. The summary is presented in Table II.

<table>
<thead>
<tr>
<th>TABLE I: GENDER DISTRIBUTION OF RESPONDENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
</tr>
<tr>
<td>---------------</td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td>Female</td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TABLE II: AGE DISTRIBUTION OF RESPONDENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
</tr>
<tr>
<td>----------</td>
</tr>
<tr>
<td>18-25</td>
</tr>
<tr>
<td>26-35</td>
</tr>
<tr>
<td>36-45</td>
</tr>
<tr>
<td>46-55</td>
</tr>
<tr>
<td>Above 55</td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TABLE III: MARITAL STATUS, EDUCATIONAL LEVEL, AND OCCUPATION OF THE RESPONDENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variables</td>
</tr>
<tr>
<td>------------------------------------</td>
</tr>
<tr>
<td>Marital status</td>
</tr>
<tr>
<td>Single</td>
</tr>
<tr>
<td>Married</td>
</tr>
<tr>
<td>Divorced</td>
</tr>
<tr>
<td>Widow</td>
</tr>
<tr>
<td>Educational level</td>
</tr>
<tr>
<td>None</td>
</tr>
<tr>
<td>Primary</td>
</tr>
<tr>
<td>Secondary</td>
</tr>
<tr>
<td>Tertiary</td>
</tr>
<tr>
<td>Occupation</td>
</tr>
<tr>
<td>Self-employment</td>
</tr>
<tr>
<td>Peasant Farmer</td>
</tr>
<tr>
<td>Unemployment</td>
</tr>
<tr>
<td>Others</td>
</tr>
</tbody>
</table>

The number of respondents who were single constituted 56.4%, married were 29.8%, and divorced were 7.4% while 6.4% of the respondents of the study were widows. Most of the respondents (51.1%) had secondary education, 22.3% had primary education and 21.3% of respondents had tertiary
education among others. Most of the patients who were readmitted constituted 55.3%, those who had employment were 26.6%, and peasant farmers were 8.5% while others constituted 9.6% of respondents. The summary of the findings is presented in Table III.

Table IV below demonstrates that the majority 75.5% (71) of the respondents were supplied with drugs while 24.5% (23) were not.

<table>
<thead>
<tr>
<th>TABLE IV: FREQUENCY/REGULARITY OF MEDICATION SUPPLY OF RESPONDENTS</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequently/regularly supplied</td>
<td>71</td>
<td>75.5</td>
</tr>
<tr>
<td>Not frequently supplied</td>
<td>23</td>
<td>24.5</td>
</tr>
</tbody>
</table>

From Table V below, the majority (57.4%) of the respondents had a brief stay in the hospital, 22.3% had a long stay and 9.6% had a very brief stay. While 8% did not remember how long they stayed at the hospital. Only 2.1% responded to having a very long stay in the hospital.

<table>
<thead>
<tr>
<th>TABLE V: LENGTH OF THE HOSPITAL STAY OF RESPONDENTS</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very brief stay</td>
<td>9</td>
<td>9.6</td>
</tr>
<tr>
<td>Brief stay</td>
<td>54</td>
<td>57.4</td>
</tr>
<tr>
<td>I cannot remember</td>
<td>8</td>
<td>8.5</td>
</tr>
<tr>
<td>Long stay</td>
<td>21</td>
<td>22.3</td>
</tr>
<tr>
<td>Very long stay</td>
<td>2</td>
<td>2.1</td>
</tr>
</tbody>
</table>

86.2% of the respondents said that hospital health workers were friendly while 13.8% indicated that they were unfriendly (rude) to them. The results are presented in Table VI.

<table>
<thead>
<tr>
<th>TABLE VI: THE ATTITUDE OF HEALTH WORKERS</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friendly</td>
<td>81</td>
<td>86.2</td>
</tr>
<tr>
<td>Rude</td>
<td>13</td>
<td>13.8</td>
</tr>
</tbody>
</table>

73.4% of the respondents were not followed by health workers, while 26.6% indicated that they were appropriately followed. The results are reflected in Table VII.

<table>
<thead>
<tr>
<th>TABLE VII: HEALTH WORKERS REVIEW AND FOLLOW-UP</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>25</td>
<td>26.6</td>
</tr>
<tr>
<td>No</td>
<td>69</td>
<td>73.4</td>
</tr>
</tbody>
</table>

Fig. 1 demonstrates that 56.1% of the respondents were stressed, while 43.6% indicated that they were not stressed.

A majority (77.7%) of the respondents had adequate social support at home and in the community, while 22.3% said they did not receive any support. Fig. 2 below reflects these findings.

Fig. 2. Social support at home and in the community of respondents.

From the Fig. 3 below, it was revealed that most (70.2%) of the respondents were not isolated or stigmatized, while 29.8% were isolated and stigmatized.

Fig. 3. Isolation or stigmatization of respondents.

Fig. 4 below indicates that the majority (64.9%) of the respondents had support from the community, 23.4% were discriminated, 7.4% were hostile, and 4.3% were abusive.

Fig. 4. Reaction of the community towards the respondents.

75.5% of the respondents were not neglected, while 24.5% were neglected by their families. Fig. 5 below shows these findings.

Fig. 5. The reaction of the respondents’ families.
Fig. 6 below indicates that 71.3% of the respondents were not aggressive, while 28.7% shows some levels aggression.

81.1% of the respondents had no history of suicide, while 18.1% had a history of suicide. Below, Fig. 7 demonstrates these findings graphically.

Fig. 7. Respondents’ history of suicide.

Fig. 8 below highlights the history of sexual abuse. 79.8% of the respondents had no history of physical or sexual abuse, while 20.2% had history of physical abuse.

Fig. 8. Respondents’ history of physical and sexual abuse.

IV. DISCUSSION

Of the respondents in the study, 63.8% were male, while 37.2% were female. A chi-square test was conducted to determine whether there was an association between gender and factors influencing the readmission of mentally ill adults at CHCH. The resulting p-value of 0.232 was greater than the standard level of significance of 0.05, indicating that the null hypothesis cannot be rejected. Therefore, there is insufficient evidence to support the claim that there is an association between gender and readmission factors among mentally ill adults at CHCH. In other words, gender is not a significant factor in predicting readmission among mentally ill adults at CHCH. However, the data suggests that men may be more susceptible to readmission than women.

The study showed the age distribution of respondents 38.3% of participants were aged between 36-45 years 22.3% between 26-35 years, 20.0% were between 18-25 years 46-55 were 14.9% and those above 55 years were 4.3%. The data showed that the age of respondents was varied and that most respondents were below 45 years old. Therefore, most respondents were young, and the age of the respondents had no significance difference on the factors influencing readmission of mentally ill adult patients at CHCH with a p-value of 0.0232 noted. Generally, young patients were readmitted more often than elders.

The number of respondents who were single constituted 56.4%, married were 29.8% and divorced were 7.4% while 6.4% of the respondents of the study were widow. Most of the respondents 51.1% had secondary education, 22.3% had primary education while 21.3% of respondents had tertiary education among others. The majority of patients were unemployed (55.3%); those who had employment were 26.6%, and peasant farmers were 8.5% while others constituted 9.6% of respondents.

The study showed that the majority (75.5%) of the respondents were supplied with drugs while 24.5% were not. Hence, the lack of drugs in the hospital was not associated with readmission because patients who got drugs were more than those who did not get drugs and were more likely to be readmitted.

Furthermore, the findings of this study revealed that patients’ length of stay in the hospital did not significantly influence readmission. The study revealed that the majority (57.4%) of the respondents had a brief stay in the hospital, 22.3% had a long stay and 9.6% had a very brief stay, while 8% did not remember how long they stayed at the hospital and only 2.1% responded to have a very long stay in the hospital. This could be because CHCH has limited space to
handle long-stay patients, yet it receives patients from the other neighboring districts. This was contrary to Alene and their colleagues who found that there was a significant relationship between patients’ length of stay and readmission [11]. Patients who were discharged in a period of two weeks from the hospital were found to be readmitted more often. This was expected because mental illness is a chronic illness that requires long-term medication(s).

The finding also revealed that mental patients who stayed near the health facility were more likely to be readmitted than those who stayed far away. It was found that 72.3% of the respondents had to walk for more than 5 km from home to the hospital, while 27.7% indicated that they had to walk less than 5 km. Additionally, 73.4% of the respondents were not followed by health workers while 26.6% indicated that they were followed. This is because distance significantly influences readmission as patients who lived more than 5 km from the mental health facility were more often readmitted. This is because mental patients are probably reluctant due to the close proximity to the hospital; this was similar to the study done by Mukazungu [7].

The attitude of health workers did not significantly influence the readmission of mentally ill patients because the study revealed that 86.2% of the respondents said that health workers were more friendly at the hospital while 13.8% indicated that they were rude to them.

Stress was associated with readmissions of patients at the hospital. The study revealed that 56.1% of the respondents were stressed, while 43.6% indicated that they were not stressed. Though the study revealed no significant association between stress and readmission, several studies stated that patients who experience a high number of life stressors were more often relapsing and being readmitted [2], [5], [35]-[37].

Social support, stigmatization and abuse did not influence readmission in this study; none of them influenced readmission. The majority (77.7%) of the respondents had adequate social support at home and in the community, while 22.3% said they did not receive any support. Therefore, the study also revealed majority (70.2%) of the respondents were not isolated or stigmatized, while 29.8% were isolated and stigmatize. It also revealed that the majority (80.9%) of the respondents were not abused, while 19.1% were abused, hence did not influence readmission of mentally patients in this study.

Aggressive, suicide, sexual abuse and alcohol did not influence readmission in this study none of them influenced readmission. The majority (71.3%) of the respondents were not aggressive, while 28.7% were aggressive. The majority (81.1%) of the respondents had no history of suicide, while 18.1% had history of suicide. The study also revealed majority (79.8%) of the respondents had no history of physical or sexual abuse, while 20.2% had history of physical abuse. It also revealed majority (75.5%) of the respondents had no history of drug or alcohol abuse, while 24.5% had history drug or alcohol abuse; hence these factors did not influence readmission of mentally patients in this study.

V. LIMITATIONS

Some respondents refused to consent, some demanded to be paid to participate and some were scared to take part in the studying thinking the information may be used by the government.

VI. CONCLUSION

According to this study, no socio-demographic factor was found to be strongly associated with the readmission of psychiatric adult patients. No history of drug abuse, no aggression, and no suicide had a strong association with readmission. Even none of the psychological factors had a prominent association with psychiatric readmission of the adult patient. Single, and unemployed patients were more frequently readmitted than patients from other social groups. There was no association between the gender of the respondents and the factors influencing the readmission. Young patients were readmitted more often than elders. The lack of drugs in the hospital was not associated with readmission because patients who got drugs were more than those who did not get drugs and were more likely to be readmitted. The findings of this study revealed that patients’ length of stay in the hospital did not significantly influence readmission. Adult patients who stayed near the health facility were more likely to be readmitted than those who stayed far away. Stress had some association with readmissions.

VII. RECOMMENDATIONS

Based on the findings of this study we recommend:

1. The Government of Zambia through the Ministry of Health should prioritize mental health services by improving the quality of life of the patients and reducing unnecessary readmissions. This can be done by increasing funding for mental health services in the country to ensure an adequate supply of drugs to the patients.

2. The Ministry of Health and hospital administration should increase public and community awareness about the dangers of substance abuse to reduce the number of patients being readmitted due to substance abuse.

3. The hospital should be encouraged to work with families to ensure continuous adequate care of those that were not supported as they were more likely to be cases of readmission.

4. The hospital should put in place or emphasize measures to improve compliance through psychoeducation and active follow-up in homes as the cases are more likely to stop medications and encourage the use of depot medication to avoid non-compliance.

5. For future research, the involvement of other districts and National healthcare centers are strongly recommended. A prospective cohort study can also be done to recruit patients on discharge and follow them up.

ETHICAL CLEARANCE AND CONSIDERATIONS

This research was conducted by observing several ethical considerations. Ethical clearance was sought from the Mulungushi University School of Medicine and Health Sciences Ethics Review Committee (MUSOMHS REC) and forwarded to the National Health Research Authority.
(NHRA) for its approval before the carrying out of the study. MUSOMHS REC granted a permission to conduct this research (No: SMHS-MU3-2022-05). The participants’ autonomy was observed accordingly. All participants were informed about the voluntary nature of the study and their freedom to withdraw at any stage without any consequences to them. Permission to conduct the study was also granted by the head of clinical care of CHCH through the office of the senior medical superintendent of CHCH. All consent forms were provided in English, interpreted in the participant’s local language, and all participants signed after reading, understanding, and agreeing to participate in the study. Confidentiality was upheld during the whole period of the study, and each participant was given an inclusion number and assured that their names would not be used in the report or published.

ACKNOWLEDGMENT
We thank all our patients, and their caregivers who participated in the study and the administration and medical team of Chainama Hills College Hospital (CHCH) for their help and support.

CONFLICT OF INTEREST
Authors declare that they do not have any conflict of interest.

REFERENCES
