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Prevalence and Factors Influencing Relapse among Patients with Mental illness at Fort Portal Regional Referral Hospital

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ABSTRACT

About 14% of the global burden of disease is attributable to mental disorders and are projected to reach 15% by the year 2020.Relapse has been one of the most important problems in the field of psychiatry for the last decades. The study adopted a cross-sectional hospital-based survey. It entailed collection of information on the individual. The study was carried out among 196 respondents at FPRRH. Itprovided a basis of describing the status of phenomena at a fixed point in time and did not allow for inference of changes and trends of the same over time. The study findings revealed that the prevalence of relapse among patientswith mental illness attending mental health and psychiatry department 120(61.3%) readmitted between 1-4 times while a significant number of 56(28.5%) had been readmitted between 5- 7times and only 20(10.2%) had been readmitted for 8-10 times. Majority of the respondents 76(38.8%) were aged between 18-25 years though there was no significant relationship between age of the respondents and readmission, sex turned out to be associated with relapses where morefemales were readmitted than males. The study findings revealed that more than a half of the respondents 101(51.5%) were married whereas 79(40.3%) had divorced their partners and only 16(13.4%) were unmarried. Majority of the respondents, 96(49.0%) had been diagnosed with mental illness for 1-2 years. More than three quarters of the respondents 150(76.5%) did not takethe treatment as prescribed following the discharge. A significant number of respondents, 58(38.7%) did not take their drugs even after discharge because of the high costs of drugs, 22(14.7%) because sometimes they forget to take, 30(20%) felt better after being discharged and only 40(26.7%) developed side effects Because of the drugs. The findings revealed that more than a half of the respondents 105(53.6%) they use marijuana as a drug apart from the prescribedtreatment of the health worker, 46(23.4%) chew the cud, 25(12.8%) use alcohol and only20(10.2%) of the respondents use cigarette smoking. The Majority of the respondents 120(61.2%) revealed that their patient has ever heard the history of aggression while 76(38.7%) did not have. Majority of the respondents 146(74.5%) had had history of suicide and only 50(25.5%) had never committed to suicide themselves. The study concluded that Poor adherence to drugs was due to patients who feeling better and ignore taking treatment. Drug abuse especially alcohol was also associated with relapses. Patients freely socialized with other members of their communities following discharge; however, relapses were also associated with scarcity of mental health services within patients' communities.

Keywords: prevalence, relapse, mental illness

INTRODUCTION

Mental illness is among the prevalent non-communicable diseases worldwide [1-6]. Schizophrenia, depression, epilepsy, dementia, alcohol dependence and other mental, neurological and substance-use disorders make up 13% of the global disease burden, surpassing both cardiovascular disease and cancer [7-11]. Nearly 1 million people commit suicide every year [12]. Four of the six leading causes of years lived with disability are due to neuropsychiatric disorders (depression, alcohol-use disorders, schizophrenia and bipolar disorder) [13]. One in four families has at least one member with a mental disorder. In addition to the health and social costs, those suffering from mental illnesses are also victims of human rights violations, stigma and discrimination, both inside and outside psychiatric institutions [14]. Relapse can be expressed as a step of regression from a particular level of stability. Among the mentally-ill individuals, relapse refers to a return of symptoms after a period of improvement or recovery,

this occurring within the current episode of the condition [15]. It is common in all types of mental disorders with different rate of relapse 52–92% in schizophrenia, 50 to 90% in substance use disorders and 65% to 73% in bipolar disorder [16]. Relapse may also be expressed in terms of functionality and need for greater intervention [17]. Relapse costs a lot for patients and their families and imposes a financial burden on hospital and community services [18-21]. Furthermore, mental disorders cost national economies several billion dollars, both in terms of expenditures incurred and loss of productivity.The average annual costs, including medical, pharmaceutical and disability costs, for employees with depression may be 4.2 times higher than those incurred by a typical beneficiary [22]. Families of patients carry the burden of caring for patients through restricted social activities and economic problems. Relapses also lead the patients to stay on medication for a longer period of time and are associated with medication side effects, substance use, long stay before initiating therapy and comorbid medical or psychiatric illness [23].

METHODOLOGY

Study design

The study adopted a cross-sectional hospital-based survey.

Study area

The study was carried out in Fort Portal Regional Referral Hospital, in Fort Portal Tourism City.

Study population

Patients at the psychiatric unit or those attending mental clinic at FPRRH aged above 18 years.

Inclusion criteria

- Patients at the psychiatric unit or those attending mental clinic at FPRRH aged 18 yearsand above.
- Patients attending mental health clinic with and without their insight intact.
- Patients attending the out-patient clinic with or without a caretaker.

Exclusion criteria

The exclusion criteria included:

- Patients attending Hospital mental health clinic for the first time.
- Patients who are categorised as in-patients.

Sample size determination

The sample size was calculated using the probability sampling formula by (Fischer et al, 2011)i.e.

$N= Z^2pq/d^2$

Where, n = sample size, when the population size is greater than 10,000.

z = Standard normal deviation, i.e. 1.96, set at 95% confidence levelp= prevalence of relapse among patients with mental illness.

q = 1- p= expected non-prevalenced =

Desired degree of accuracy

If the value of p = 15% (Anecdotal findings from FPRRH records)

$$\mathbf{n = z^2 p (1- p) / d^2}$$

$$= 1.96^2 \times 0.15(1- 0.15) / 0.05^2$$

$$= 3.8416 \times 0.15 \times 0.85 / 0.0025$$

n= 196 participants.

Sampling and recruitment procedures

The researcher used convenient sampling technique where by a simple history is taken fromeither caretakers or patient if he/she is of sound mind as source of data regarding the patient under study. This continued on daily basis on both mental health OPD and to all inpatients in FPRRH psychiatry unit from till researcher gets the required sample size and inpatient unit by purposive convenient sampling.

Data collection methods and management

Primary data was obtained using a structured questionnaire containing demographic information,social factors and patient clinical factors that was obtained from the patient. It was administered in English or Rutooro languages. Whenever a participant/his or her caretaker agree to be interviewed he/she will be asked to provide written consent by signing or fingerprinting. After obtaining informed consent, patient and caretakers were interviewed using researcheradministered a hard copy questionnaire. The researcher entered responses given by the participant by ticking the appropriate response and entering the same number in to the codingbox immediately to reduce likelihood of data loss. The process of data collection continued until every effort to contact every study participant/his or her caretaker in the sample is exhausted. Completed data collection forms and were kept under lock and key to ensure safety. The questionnaire was pretested from Fort Portal Regional Referral Hospital mental unit on at least 10 patients

with history of mental relapses a week before data collection and any observed inconsistency of the questions were corrected to meet the intended objectives before time of data collection.

Data analysis

Analyzed data were presented in tables and figures showing frequencies and proportions. Univariate analysis was done for continuous variables to report measures of central tendency likemean, median and mode and measures of dispersion like the range, interquartile range and measures of variance like standard deviation for various independent variables. For categorical variables, data presentation was done through well summarized "2 by 2" tables that show frequencies (percentages) and totals. For continuous and categorical data, bar graphs, histograms, pie charts will be used where suited to present the data. Prevalence of relapse was determined as a proportion of the participants as established by the relapse questionnaire compared to the total sample size. Data was analysed using STATA version 11. Analysis of associated factors was by simple bivariate and multivariable logistic regression. Odds Ratios (ORs) with their respective 95% confidence intervals were used to assess for statistical associations and p-values of less than 0.05 was considered statistically significant.

Ethical considerations

1. The ethical approval to conduct this study sought from Kampala International University Research Ethics Committee, Institution Review Committee and FPRRH. The study granted an ethical clearance certificate.
2. Participants to be enrolled requested to sign consent after thorough explanation of purpose of the study, risks involved and use of data to be collected.
3. Numbers instead of names were used in all the questionnaires.

RESULTS

Majority of the respondents 76(38.8%) were between the age of18-25years, a significant number of 70 (35.7%) were aged between 26-45 years and only 50(25.5%) were between the age of 45 and above. A half of the respondents 98(50%) were male and another 98(50%) of the respondents were females. This implies that the whole gender was equally represented. The study findings further revealed that majority of the respondents 120(61.2%) were Christians while 76(38.8%) of the respondents were Muslims. Most of the respondents 85(43.3%) had attended post-secondary education, 76(38.8%) hadattained secondary education and only 35(17.9%) had completed primary education. Majority of the respondents 156(79.6%) were working privately, 16(8.2%) were unemployed, 15(7.6%) were employed by the government and only 9(5.0%) were self-employed. More than a half of the respondents 101(51.5%) were married whereas 79(40.3%) had divorced their partners and only 16(13.4%) were unmarried. Majority of the respondents 73(37.2%) were of III-skilled social class, 65(33.2%) were of I- professional II-Intermediate, 45(23%) were class IV-skilled and only 13(6.6) were unskilled. A significant number of respondents 95(48.5%) were earning between 300,001-400,000 shillings, 54(27.6%) were earning between 201,000 shillings to 300,000 shillings, 24(12.2%) were earning between 400,000 shillings and above and only 23(6.6%) were earning between 100,000-201,000 shillings only.

Table 1: shows the social demographic characteristics

	Characteristic	Frequency	percentage
Age	18-25	76	38.8
	26-45	70	35.7
	45 and above	50	25.5
Sex	Male	98	50
	Female	98	50
Religion	Christianity	120	61.2
	Islam	76	38.8
Education status	Primary	35	17.9
	Secondary	76	38.8
	Post-Secondary	85	43.3
Marital status	Unemployed	16	8.2
	Privately employed	156	79.6

	Government employed	15	7.6
	Self employed	9	5.0
Marital status	Married	101	51.5
	Unmarried	16	8.2
	Divorced	79	40.3
Social class	I-Proffessional II-Intermidiate	65	33.2
	III-Skilled	73	37.2
	IV-skilled	45	23
	V-Unskilled	13	6.6
Monthly earning	100,001-201,000	23	11.7
	201,0001-300,000	54	27.6
	300,001-400,000	95	48.5
	400,000 and above	24	12.2
Place of Residence	Urban	120	61
	Rural	76	38

From the table above, majority of the respondents 190(96.9%) had ever been admitted ofrelapses while a small number of only 6(3.15) had never been readmitted.

Majority of the respondents 120(61.3%) readmitted between 1-4 times while a significant number of 56(28.5%) had been readmitted between 5-7times and only 20(10.2%) had been readmitted for 8-10 times. Most of the respondents 170(86.7%) took a period between 30 minutes to 1 ½ hours while a significant number of 16(8.2%) took More than 2 hours and 10(5.1%0) had moved for a Less than 30 minutes. Most of the respondents moved a distance between 2 and 12 kilometers while a significant number of16(8.2%) had moved a distance of more than 12kilometres and 10(5.1%0) had moved a distance of less than 2kilometres. Majority of the respondents 165(84.2%) had Schizophrenia while 21(10.7%) had Bipolar disorder and a significant number of 10(5.1%) had Schizophreniform.

Table 2: Showing prevalence of relapses among psychiatric patients

Variable	Frequency	Percentage
Whether respondents have ever been admitted		
Yes	**190**	**96.9**
No	**6**	**3.1**
How many times the respondents have ever been re-admitted?		
1-4	**120**	**61.3**
5-7	**56**	**28.5**
8-10	**20**	**10.2**
Distance of the home to the nearest health facility		
Less than 2 kilometers	**10**	**5.1**
Between 2 and 12 kilometers	**170**	**86.7**
More than 12 kilometers	**16**	**8.2**
How long does it take the client to walk to the nearest mental health facility		
Less than 30 minutes	**10**	**5.1**

30 minutes to 1 ½ hours	**170**	**86.7**
More than 2 hours	**16**	**8.2**
What the respondent was diagnosed with		
Bipolar disorder	**21**	**10.7**
Schizophreniform	**10**	**5.1**
Schizophrenia	**165**	**84.2**
Delusional disorder	**00**	**00**

From the study findings majority of the respondents, 96(49.0%) had been diagnosed while mentally sick for 1-2 years while 45(23.0%) had been diagnosed for less than a year, 35(17.8%) had been diagnosed for between 3-4years and only 20(10.2) has been diagnosed for more than 5 years. Majority of the respondents 100(51%) agreed that the patient knows and admits that he was admitted while only 49% did not know. More than three quarters of the respondents 150(76.5%) did not take the treatment as prescribed following the discharge while almost a quarter of the respondents 46(23.5%) were taking as prescribed even after being discharged. A significant number of respondents, 58(38.7%) did not take their drugs even after discharge because of the high costs of drugs, 22(14.7%) because sometimes they forget to take, 30(20%) felt better after be in discharged and only 40(26.7%) developed side effects because of the drugs. More than a half of the respondents 105(53.6%) they use marijuana as a drug apart from the prescribed treatment of the health worker, 46(23.4%) chew the cud, 25(12.8%) use alcohol and only 20(10.2%) of the respondents use cigarette smoking. Majority of the respondents 120(61.2%) revealed that their patient has ever heard the history ofaggression while 76(38.7%) did not have.

Majority of the respondents 146(74.5%) had had history of suicide and only 50(25.5%) hadnever committed to suicide themselves.

Table 3: showing the Patient Clinical Factors influencing mental disorder relapse

	Frequency	**Percentage**
How long the patient had been diagnosed while mentally sick		
< 1 year	45	23.0
1-2 years	96	49.0
3-4 years	35	17.8
≥5 years	20	10.2
Total	**196**	**100**
Whether respondents could recognize that they were admitted		
Yes	100	51

No	96	49
Total	196	100
whether the patient took the treatment as prescribed following the discharge		
Yes	150	76.5
No	46	23.5
Total	196	100

The reason why respondents did not take the treatment		
High costs of drugs	58	38.7
Sometimes forgets	22	14.7
Felt better and stopped	30	20.0
Had serious side effects	40	26.7
Drugs patients can use apart from the prescribed treatment of the health worker.		
Marijuana	105	53.6
Chew the cud	46	23.4
Alcohol	25	12.8
cigarette smoking	20	10.2
whether the patient has ever heard the history of aggression		
Yes	120	61.2
No	76	38.7
Total	196	100
whether respondents had history of suicide		
Yes	146	74.5
No	50	25.5

DISCUSSION

According to the findings of the study majority of the respondents 76(38.8%) were aged between18-25 years though there was no significant relationship between age of the respondents and readmission. Among the socio-demographic characteristics studied sex turned out to be associated withrelapses where more females were readmitted than males. This is probably attributed to the healthy seeking behaviors among the different sexes. Females tend to seek health care than men so it gets depicted that females are often readmitted than men. Accordingly, this study did not find any significant relationship between level of education of patients and psychiatric relapses. The study findings revealed that More than a half of the respondents 101(51.5%) were married whereas 79(40.3%) had divorced their partners and only 16(13.4%) were unmarried. There is an extremely high incidence of divorce among relapsing patient compared to general population. This may indicate family problems among homes of relapsing patients leading to rejection, stress, denial, and violated right which increases chance of relapsing as result of lack for social support and psycho sexual challenges beyond these individuals copying mechanism which catalyzing incidences of mental illness relapses. The findings of this study are also in contrast with [24], in Indian which indicated that relapse was more among divorced and separated than in married. Majority of the respondents 165(84.2%) had Schizophrenia while 21(10.7%) had bipolar disorder and a significant number of 10(5.1%) had Schizophreniform. Majority of the respondents 120(61.3%) readmitted between 1-4 times while a significant number of 56(28.5%) had been readmitted between 5-7times and only 20(10.2%) had been readmitted for 8-10 times. This implies that readmission is common among patients in FPRRH. The findings are in agreement with Bajracharya [25] which revealed that schizophrenia and schizophrenia related disorders were responsible for more than half of all readmissions in the study population in a study in India. From the study findings majority of the respondents, 96(49.0%) had been diagnosed while mentally sick for 1-2 years. More than three quarters of the respondents 150(76.5%) did not take the treatment as prescribed following the discharge. This implies the mentally ill patients neglected to take drugs as prescribed by medical doctors after being discharged from the hospital. This is also supported by results from a study in India that found that non-adherence increase relapse by 6.35 times compared to being adherent [22]. A significant number of respondents, 58(38.7%) did not take their drugs even after discharge because of the high costs of drugs, 22(14.7%) because sometimes they forget to take, 30(20%) felt better after being discharged and only 40(26.7%) developed side effects Because of thedrugs. Majority of the respondents 120(61.2%) revealed that their patient has ever heard the history of aggression while 76(38.7%) did not have. Aggressive patients tend to act out their emotions and are easily identified which enables them to get quick help unlike patients who are not aggressive who will not be detected early enough before it necessitates readmission.

CONCLUSION

According to this study several factors have been associated with relapse among patients with mental illness. Majorly socio-demographic factor was found to be associated with relapse amongpatients with mental illness. History of drug abuse, no aggression and no suicide were found tobe associated with relapse among patients with mental illness. Management of patients with mental illness can be improved by addressing the factors influencing relapse as highlighted inthis study. The findings call for improvement in mental health care service delivery to patients with mental illness. It is important that in the local context, mental health nurses strengthen their therapeutic relationships with patients and their caregivers.

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