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Assessment of Factors responsible for Relapses in Schizophrenic Patients at Kampala International University Teaching Hospital, Uganda.

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ABSTRACT

There has been an increase in numbers of patients readmitted with relapse in schizophrenic disorders than new admissions and approximately half of those readmitted allegedly have relapsed schizophrenia (S/Z). At K.I.U-TH the outpatient department, Annual report of 2017 revealed that a total of 420 patients admitted, (43%) 180 were readmissions of S/Z. Where by relapses can be expected in 70% of patients after the first episode. The study was to assess factors contributing to relapses among Schizophrenic patients attending mental health services, (M.H.S) at K.I.U-TH. Through their socio-demographic factors, patient related factors and treatment related factors contributing to relapses. The study employed facility based prospective quantitative purposeful studies which were convenient, reliable and complete. Information was obtained. The study found out that Majority (62.5%) of the respondents were not married, (75%) of the respondents were taking at least some psychoactive substance drugs, more than three quarter (87.5%) of the respondents thought taking medicine every day was a real inconvenience to them and more than three quarter (80%) of the respondents agreed that sometimes they felt like stopping taking medication when their conditions were under control. We recommend that the health workers should have continuous training for capacity to deliver high-quality care as multiple disciplines are to be coordinated by including active participation of patients and relatives in treatment compliance.

Keywords: Schizophrenia, Relapses, Mental health, Outpatient.

INTRODUCTION

Globally, according to research done [1], showed an international survey that relapses of Schizophrenia(S/Z) was seen to have been a major concern for care givers because of its devastating consequences for family members of people living with mental illness. Care givers from Australia, Canada, Germany, France, Italy, Spain, UK and US participated in the survey of the 502 (51.12%) care givers who said their family member stopped taking medication despite doctor`s advice. 91% claimed that this has led to relapses of S/Z in their family members. 838 (85.34%) care givers said their family member experience relapses. As a result, their loved ones were unable to work (72%), were hospitalized (69%), attempted suicide (22%) and imprisoned (20%). More than one third of care givers said that family member relapsed 5 or more times since becoming diagnosed leaving a majority of care takers to often worry about their relatives relapsing [2][3][4][5].

However, Africa is not exceptional, [3], in his study done in South Africa indicated that 61.8% of the study populations were relapsed. The monthly relapse rates were estimated to be 23.5% per month for patients on maintenance narcoleptic and 11.0% per month for patients who have discontinued their medications. Successive relapses can reduce to the degree and duration of the next remission worsens disability, and increased refractoriness to future treatment [3][6][7].

Another research done by [4], showed that a lack of patient insight and side effects appear to be the factors most likely to increase the risk of relapse. Other factors

that have been identified include; lack of social support, grief of loss of a close family member and lack of employment.

In a study done by [5] in Tanzania showed that relapses are the common problem among patients attending mental Health facilities, all these being attributed to non-adherences to medication, side effects and cost.

Also in another study done by [6] at Psychiatric Unit National Hospital showed approximately 10% of patients with S/Z are readmitted due to relapse each month.

According to the [7], report in Uganda indicated that there are no recent and reliable data on the relapses of S/Z because few studies have been conducted in the field of mental health. However, research done by [8] showed that relapse of patients with Schizophrenia is associated with substantial direct mental health cost that extend beyond the cost of relapse as other frequently during the first year of the illness and may be associated with clinical deterioration and commonly. Discontinuing antipsychotic drugs therapy increases the risk of relapse by almost five times [9][8][10][11][12].

Finally, a study done by [10], elaborated that the chance of relapses in patients with schizophrenia living at home depends heavily on emotional environment provided by the family. The concept of expressed emotion has evolved as an index of the quality of this environment making it a concern to be addressed [10][13][14][15][16].

Globally mental illness (M.I) has continued to be the problem cutting across all communities, whether in developed or developing countries. [11] showed that relapses of S/Z affects approximately 1% of the population with a relatively high relapses rate of 1.4-6.6 per 1000 population at risk. Also relapse cases can occur at any time during treatment and recovery. Relapses can be expected in 70% of patients after the first schizophrenic episode [17][18][19][20][11].

In KIU-TH, there has been an increase in numbers of patients readmitted with relapse in schizophrenic disorders than new admission and approximately half of those readmitted allegedly have relapsed S/Z. This has been indicated in the outpatient department report of 2017; where a total of 420 patients admitted, (43%) 180 were readmissions of S/Z.

Despites the fact that mental health services are becoming well established and treatment has improved, the risk of relapses of schizophrenia episodes remain high throughout the patients' life thus causing cognitive decline and lower quality of life in patients [12][21][22][23][24][25].

There is also no published data and research done in Bushenyi Ishaka or in the whole of Western Uganda on the relapses of schizophrenia. Therefore, this study will help to generate data for helping in the implementations of effective measures and strategy to solve problem of relapses in patients suffering from Schizophrenia in resource limited setting.

This study will contribute through its objective of Assessment of factors which contributes to relapses of schizophrenia in KIU-TH, information to policy makers on the management and prevention of relapse cases of Schizophrenia in Uganda.

Aim of the study

To assess factors contributing to relapses among Schizophrenic patients attending mental health, (M.H.S) at Kampala International University teaching hospital

Specific objectives

1. To assess socio-demographic factors that contributes to relapses among schizophrenic patients attending M.H.S at Kampala International University Teaching Hospital.
2. To find out the patients related factors that contribute to relapses among schizophrenic patients attending M.H.S at K.I.U-TH.
3. To assess treatment related factors contributing to relapses among schizophrenic patients attending M.H.S at KIU-TH.

Research Questions

1. What are the socio-demographic factors that contribute to relapses among schizophrenic patients

attending mental health services at KIU-TH?
2. What are the patient's related factors that contribute to relapses among schizophrenic patients attending mental health services at KIU-TH?
3. What are the treatments related factors contributing to relapses among schizophrenic patients attending mental health services at KIU-H

Significance and justification of the study

In Uganda, there is so far no published data regarding factors contributing to relapses among patients with S/Z. Mental health care services are faced with a lot of challenges which in one way or other affect M.H.S users. This is made worse by patient's psychosocial and environmental factors that can exacerbate symptoms which might eventually lead to relapses.

This study was important because it brought out insight on factors contributing to relapses of patients with S/Z in the current contexts. These findings will provide a foundation for designing effective psychiatric and nursing intervention from the Ministry of Health (M.O.H) since they would receive Holistic care.

Also, mental health staffs are helped in shaping their perceptions and understanding of patients concerns and experiences about schizophrenic relapse. Knowledge of these factors might help to improve the standards of mental health care and interventions that are currently applied in caring for inpatients and out patients with S/Z at our setting and the whole country at large.

This study might set a foundation for future research on relapses among schizophrenic patients among students basing on the information generated.

METHODOLOGY

Study Design

The study employed facility based prospective purposeful studies which were convenient, reliable and complete. Information was obtained from the participants.

Study area

The study was done at KIU-TH which is located in western part of Uganda about 405km from Kampala the national city along Mbarara Kasese high way which is approximately 60km from Mbarara to Bushenyi Ishaka town. The hospital is a private sector which offers different services like Medical, Surgical, Antenatal and Maternity, Pediatrics, Gynecology, and Orthopedic even Psychiatry among others to mention but a few.

In addition, according to the study topic that is; Factors contributing to relapses among schizophrenic patients attending M.H.S, psychiatric department also offer both in-patients and out-patient's services where by daily attendance ranges from 6-10 patients of different psychiatric conditions and more so it can take about 40% to 50% relapse cases of S/Z according to a survey done in the records.

Furthermore, In-patient's services has a bed capacity of about 45 in numbers, having five psychiatric Doctors, one physiotherapist, three psychiatric clinicians, two social workers, four psychiatric Nursing officers and 6 psychiatric enrolled nurses, one counselor and five support staffs.

Finally, the area has relatively flat and gently sloping areas and the climate is relatively cool throughout the year because of surrounding swamps. In the North, its bordered by Rubirizi District, Buhweju District, in East Sheema District in the South and West.

Study population

The study population involved care takers plus Schizophrenic patients who have stabilised and have got more than one episode in their life time.

Sample size determination

The researcher's sample sizes of the study population were determined by Kish and Leslie's formula (1965), it states.$n = \left(\frac{Z^2 p\, q}{d^2}\right)$

Where; n= Desired sample size,

Z = Standard deviation at desired degree of accuracy at1.96, confidence level is 95%.

p = the proportion of Schizophrenic respondents attending M.H.S at KIU-TH.

But there were no previous surveys done to find out factors contributing to relapses of Schizophrenic patients in this area, therefore, p was estimated to be 50% = 0.5, implying that, my p =0.5

q= 1-p hence q= 1- 0.5=0.5

d = the degree of error acceptable at 5%, d = 0.05

$n = \left(\frac{1.96^2 \times 0.5 \times 0.5}{0.05^2}\right) = 384.16$

$n = 384$

This sample size (384) of respondents was bigger than that of my study population (factors contributing to relapses of schizophrenic patients attending M.H.S at KIU-TH Bushenyi District) who's their population happens to be less than < 10,000 population. Therefore, using this equation for study population < 10,000 $nf = \left(\frac{n}{1+\frac{n}{N}}\right)$ would give me the target population's sample size

Where, N=Total number of Schizophrenic patients attending M.H.S at KIU-TH, Bushenyi District.

According to [26], record report about 45patients of Schizophrenia relapsed from the Month of January to March. Implying:

$nf = \left(\frac{n}{1+\frac{n}{N}}\right)$; $nf = \left(\frac{384}{1+\frac{384}{45}}\right) =$ 40respondents

nf is sample size for study population < 10,000. This means sample size for the target population was at 40 respondents (factors contributing to relapses among schizophrenic patients attending M.H.S at KIU-TH).

Sampling Procedure

Purposive sampling procedure was used where by all schizophrenic patients attending M.H.S that have stabilised and have got more than one episodes in their life time and care takes were takers to participate in the study at KIU-TH.

Inclusive and exclusive criteria.

Inclusion criteria

The following were included in the study: Care takers of patients with relapse cases, schizophrenic patients who have stabilised and have got more than one episode in their life time and schizophrenic Patients who had more than one episode in their life time and above 18 years age of both genders.

Exclusive criteria

The followings were considered for the study: schizophrenic patients who have not relapsed, schizophrenic patients less than 18 years of age and patients without Schizophrenia disorder and Schizophrenic patients still under acute attack.

Definitions of Variables

Independent variables

Schizophrenia

Is a form of psychosis with disorder of thinking, affect and behaviour characterised by patient having delusion and hallucination

The dependent variable-

Relapse-Is reappearance of signs and symptoms of schizophrenia after first and second episodes.

Research Instruments

The research instruments were done through the questionnaires where by section A dealt with socio-demographic data, section B dealt with patients data and section C dealt with the treatment data contributing to relapses among schizophrenic patients attending M.H.S at KIU-TH

Data collection

Data collection took a period of three month using a developed questionnaire which was pretested on pre-visit and used to collect information such as socio-demographic character, information on treatment and patients' character even a research assistant who is well verse with the local language (Runyankole) were trained and introduced to the study objectives and how to use the interview guide.

Data analysis

Data was analysed using a computer Microsoft version and presented inform of frequency counts, percentages and then presented into tables, figures, pie charts and graphs.

Ethical considerations

The in charge was introduced to the researcher and other staff members respectively and the patients in the department. The researcher had to seek consent from the respondents and requested them to participate in the

interview in order to collect data from them at the same time ensure confidentiality of the information provided by the respondents which portrayed a good image.

RESULTS

Socio-demographics of the respondents

Table 1: Shows Socio-demographics factors of the respondents

n=40

Age (years)	**Frequency (N)**	**Percentage (%)**
26-35	16	40
18-25	13	32.5
36-45	9	22.5
≥46	2	05
Total	**40**	**100**
Tribe		
Munyankole	20	50.0
Others specify	10	25
Mukiga	09	22.5
Mutoro	1	2.5
Total	**40**	**100**
Religion		
Pentecostal	15	37.5
Catholics	10	25
Moslems	10	25
Adventists	05	12.5
Total	**40**	**100**
Occupation		
Others(house wives, maids, shop attendants)	17	42.5
Formal employment	13	32.5
Self employed	10	25
Total	**40**	**100**
Marital Status		
Single parent	25	62.5
Married	9	22.5
Divorced/Separated	4	10
Widow	2	05
Total	**40**	**100**
Level of education		
Primary	20	50
Secondary	8	20
Tertiary	8	20
None	4	10
Total	**40**	**100**

From table 1 above, most 16(40%) of the respondents were in the age range of 26-35years, and the lowest 02(05%) were in the age range of ≥46years. Majority of the respondents 15(37.5%) were Pentecostal and the least 05(12.5%) were Adventists.
Majority 17(42.5%) of the respondents were house wives, maids and shop attendants, while the minority 10(25%) were self-employed.
Most 25(62.5%) of the respondents were not married and the least 02(5%) were widowers.
Majority of the respondents 20(50%) had not attained secondary while the minority 4(10%) had no formal education at all.

n=40

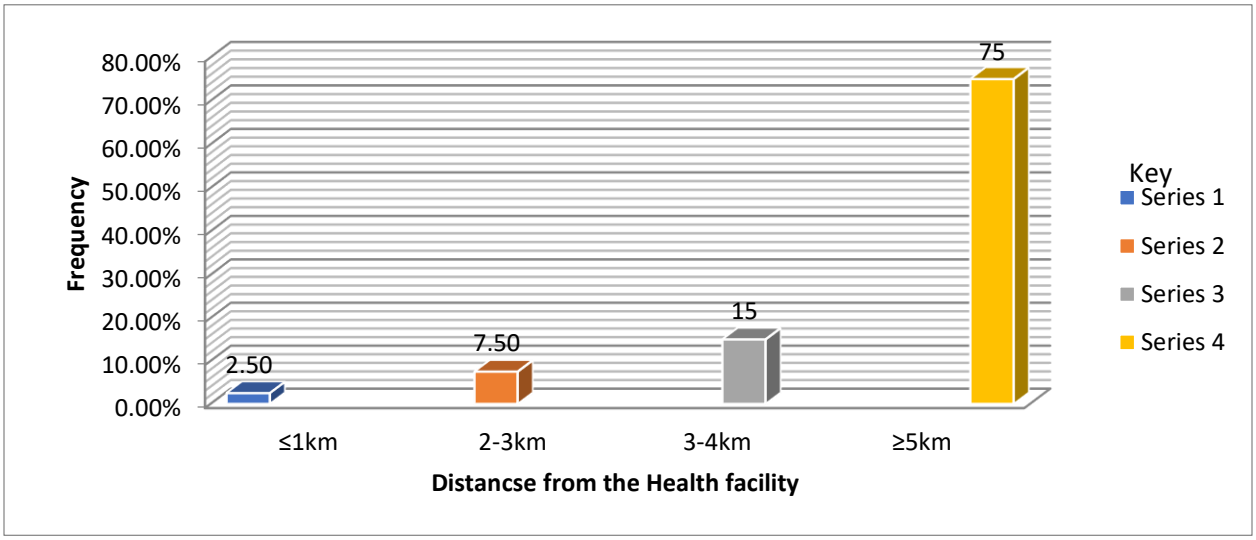

Figure 1: Shows the respondent's distances from the Health facility

From the figure 1 above, majority 30(75%) of the respondents reported having moved a distance more than or equal to 5km yet aminority1 (2.5%) of the respondents said they travelled a distance less than 1kilometre Which implies that relapses is associated with long distances of the respondents.

n=40

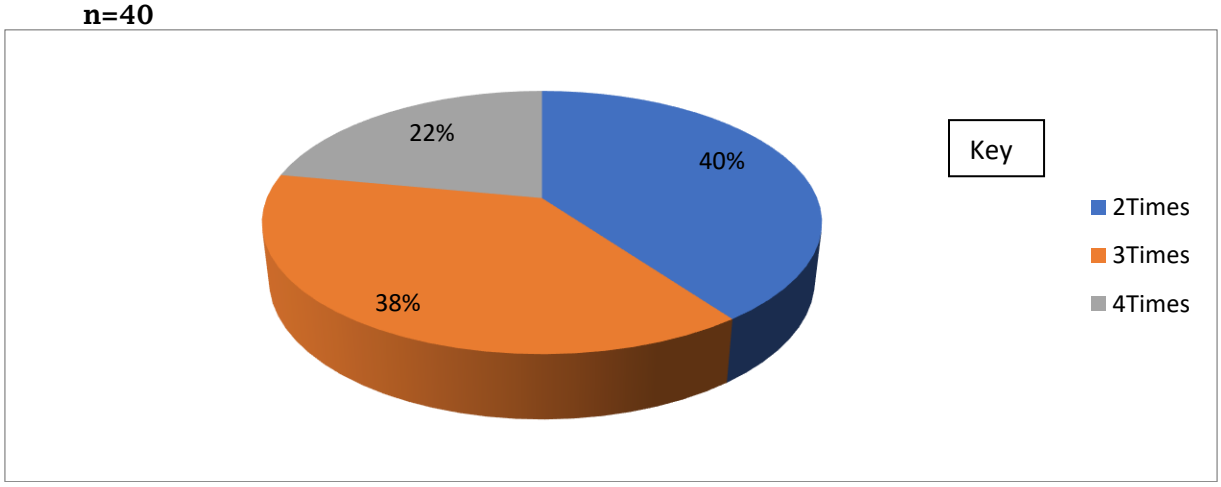

Figure 2: Shows respondent's responses on taking medication as being real inconveniences

From the figure2 above, shows majority of respondents 15 (37.5%) have ever got relapses and readmitted from January to December more than two times while

minority10 (25 %) got relapses and readmitted more than fourtimes because of non-adherence to drugs.

Table 2: Shows respondents responses on family history of schizophrenia. n=40

Response	Frequency(n)	Percentage (%)
Not sure	20	50
Yes	12	30
No	8	20
Total	**40**	**100**

From the table 2 above, most 20(50%) of the respondents were not sure whether there was any family member who had been suffering from schizophrenia while minority 8(20%) did not believe so.

The patients related factors that contribute to relapses among schizophrenic patients attending mental health services at Kampala International University.

Table 3: Shows the respondents' related factors contributing to relapses of Schizophrenia, n=40

Description	Variable	Frequencies (n)	Percentages (%)
Taking psychoactive substance drugs	Yes	30	75
	No	10	25
	Total	**40**	**100**
Factors contributing to relapses among schizophrenic patients.	Ever Felt more angry or irritable than usual	13	32.5
	Getting reduced sleep than usual	10	25
	Ever been feeling more worried or nervous than usual	8	20
	Ever felt more restless or tense than usual	6	15
	Something specific happened recently that really upset the patients	3	7.5
	Total	**40**	**100**

According to the table 3 above, most 30(75%) of the respondents were taking at least some psychoactive substance drugs while less 10(25%) of respondents were not taking any of the psychoactive substance drugs.

Also, from the table3 above, majority 13(32.5%) of respondents ever felt more angry or irritable than usual while minority 3(7.5%) reported something specific happened recently that really upset them.

Treatment related factors contributing to relapses among schizophrenic patients attending mental health services at KIU-TH.

Table 4: Respondents' responses on whether they sometimes forget to take medicine, n=40

Response	Frequency (n)	Percentage (%)
YES	30	75
NO	10	25
Total	**40**	**100**

From table 4 above, majority 30(75%) of the respondents reported that they had forgotten taking their daily medications while minority 10(25%) said they remembered to take their daily medications. This indicates that there is poor adherence to psychotropic medication among patients.

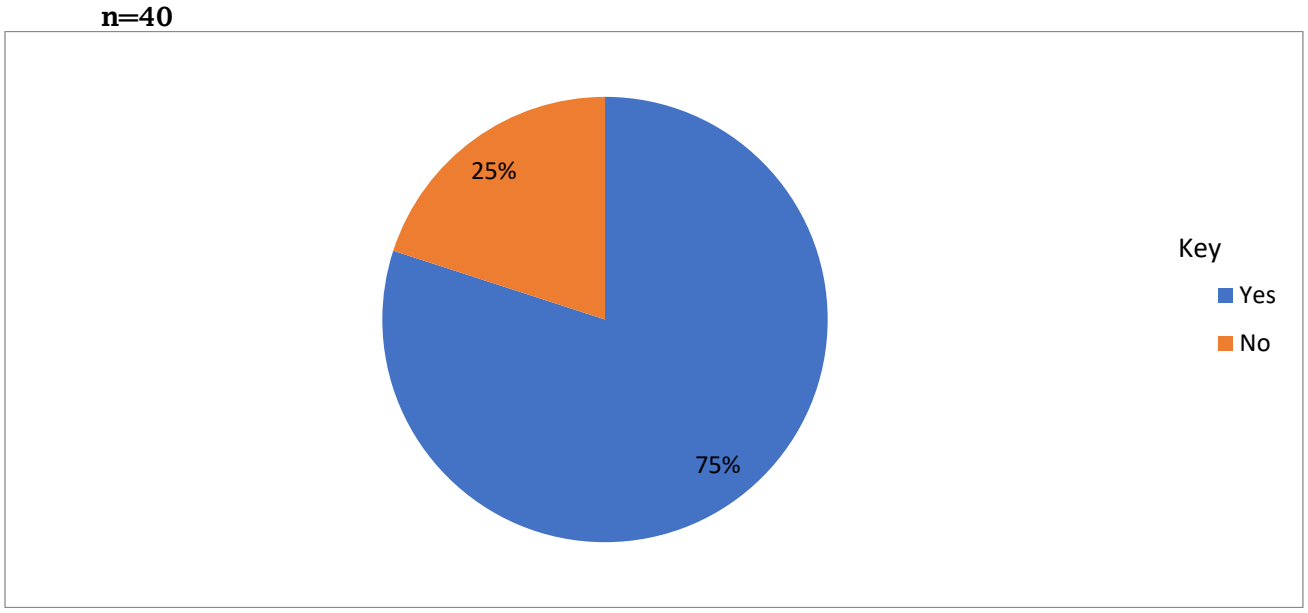

Figure 3: Respondents' responses on not taking drugs for reasons other than forgetting.

According to the figure 3 above, most 30(75%) of the respondents were revealed that they had forgotten taking their medication for other reasons other than forgetting whileleast10 (25%) were not found so.

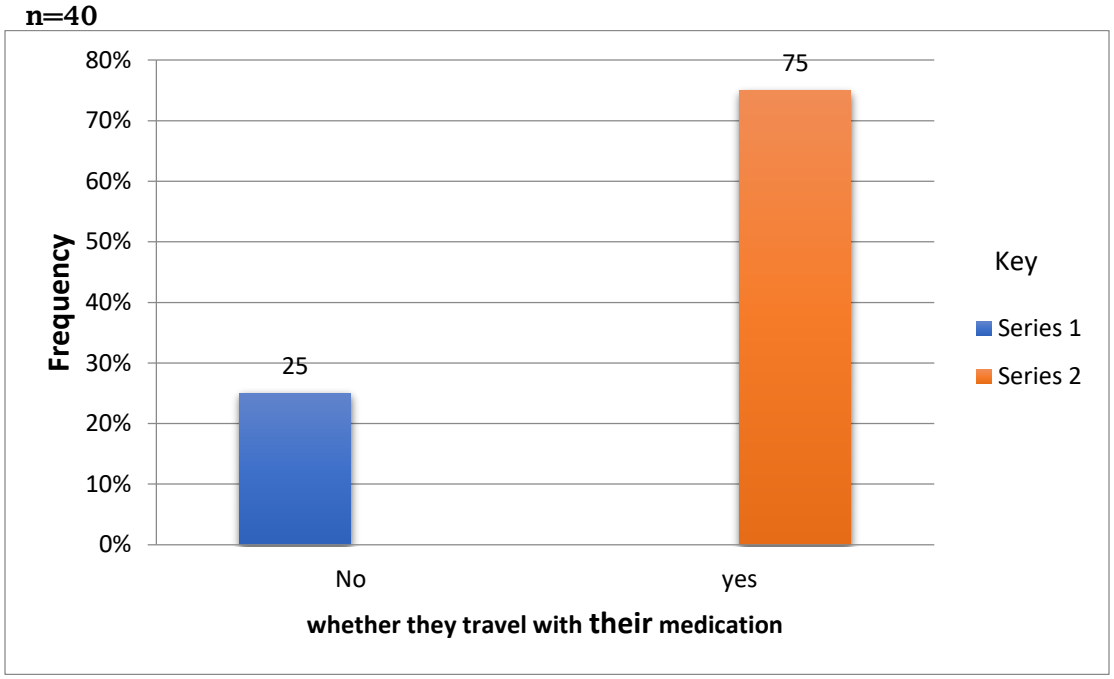

Figure 4 shows whether respondents travel with their medication

From figure 4 above, a majority 30(75%) of the respondents reported that they forgot their medications while a minority 10(25%) said they did carry their medications during the journey.

Table 5: Respondents' responses on feeling like stopping taking drugs when their symptoms are under control n=40

Response	Frequency (n)	Percentage (%)
Yes	32	80
No	8	20
Total	**40**	**100**

From table 5 above, more than three quarter 32(80%) of all the respondents agreed that sometimes they felt like stopping taking medication when their conditions were under control while less than three quarter 8(20%) of the respondents didn't feel so.

Table 6: Respondents' Responses on taking medication as a real inconvenience, n=40

Response	Frequency (n)	Percentage (%)
Yes	35	87.5
No	5	12.5
Total	**40**	**100**

From table 6 above a majority 35(87.5%) of the respondents thought taking medicine every day was a real inconvenience to patients while 5(12.5%)

did not believe so. This makes it clear that taking medication is not a simple exercise since at times patients can be thinking or fearing the time when they have to take drugs.

n=40

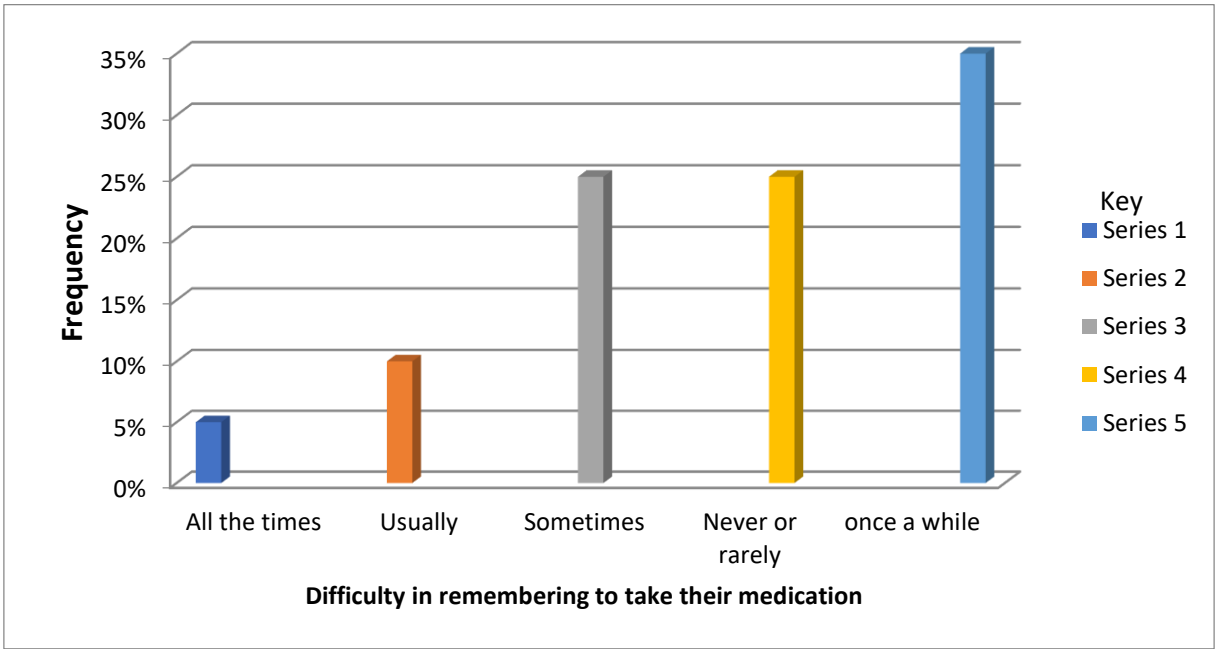

Figure 5: Respondents' responses on difficulty in remembering to take their medication

From the figure 5 above, more than three quarter 14(35%) of the respondents said that once in a while they have difficulty in remembering to take their medication while less than three quarter 2(5%) of the respondents had difficulty in remembering to take their medication all the time.

DISCUSSION

Socio-demographic factors that contribute to relapses among schizophrenic patients attending mental health services at Kampala International University Teaching Hospital.

Most of the participants (40%) were in the age range of 26-35 years, this is in line with the study done by [13], which found out that relapse risk decreased with increasing age at first Schizophrenic admission.Majority of the respondents (42.5%) were house wives, maids and shop attendants which this contradict with thestudy done by [14] which showed that having a job tend to keep patients busy; they tend not to think of their mental illness (M.I), employment has shown to improve patients' recovery from severe M.I, particularly S/Z [27][28][14]

According to the study by [15], showed that living in partnership predicted a better outcome in relapses of Schizophrenia which is in line withmost (62.5%) of the participants were not married [29][30]. Educational level of a person is very important in the development of mental functioning and total wellbeing in personality manifestation in the community hence giving insight as reported by [16] which concurs with majority of the respondents (50%) had attained only primary level [27][31].

According to the study done by [17] states that, in one third of 18 comparison studies on Schizophrenia, women had lower rates of relapses than men, due to inadequate ability to cope up with the stressors. The study found out that half (50%) of the respondents were not sure whether there was any family member who had suffered from schizophrenia, despites the fact that most people do not go for medical checkups and a handful of

those who go for medical checkups also do not disclose diagnosis that has been got.

The patients related factors that contribute to relapses among schizophrenic patients attending mental health services at Kampala International University.

The study found out that, the patients' related factors contributing to relapses among schizophrenic patients attending mental health services as given by 75% of the respondents stating that something specific happened in recent times that really upset the patients. This is in line with a study done by [18], which indicates that high expressed emotion can lead to relapse in vulnerable individuals even when they are on medication [32][32]. In addition to that, a study done by [11][33], indicated that depressed mood during the period of assessment increase the risk of relapse by 5.3 times making variation ranging from high of 75% to a low of 7% contributing to relapses among schizophrenic patients.

Treatment related factors contributing to relapses among schizophrenic patients attending mental health services at KIU-TH.

The study found out that majority of the participants (75%) believed that patients do not only forget to take their drugs but have other underlying reasons for forgetting taking the medication. However, another 75% respondents noted that, patients sometimes forget to carry along their medicine whenever they travel. Notably 87.5% of the respondents expressed that taking medicine every day is a real inconvenience to the patient. This was in agreement with the study done by [19][30], who found out that, taking medication daily is a burden for these individuals; this is made worse by the side effects of these drugs. In an effort to get rid of these discomforts, patients stop taking their regular medication which in turn causes them to experience relapses.

Drug misuse is an important clinical problem associated with a poorer outcome in patients who have a diagnosis of Schizophrenia. This concurred with the study done in Manchester, that identified five key reasons for street drug use in S/Z which were: 1/5 as identity-defining vocation, 2/5 to belong to a peer group, 3/5 due to feelings of hopelessness, 4/5 due to beliefs about symptoms and how street drugs influence them and 5/5 as an equivalent to taking psychotropic medication [8].

CONCLUSION

The findings of the study showed that most of the respondents were not sure whether there was any family member who had been suffering from schizophrenia. Since was revealed by a result of the fact that most people do not go for medical checkup and those who go there did not disclose to the family members.

The study finding found out that the patients' related factors that contribute to relapses among schizophrenic patients attending mental health services as given by the respondents include; Ever Felt more angry or irritable than usual, getting reduced sleep than usual, ever felt more restless or tense than usual, ever been feeling more worried or nervous than usual and something specific happened recently that really upset the patients. Attendants' responses on whether when they travel they sometimes forget to bring along their medicine showed that most believed so

Patients taking medicine every day is a real inconvenience to people evidenced by the fact that most believed so. This makes it clear that taking medication is not a simple exercise since at times patients can be thinking or fearing the time when they have to take drugs. From the study, most of the respondents said that once in a while they have difficulty in remembering to take all their medication

Recommendations

The study put forward the following recommendations towards Schizophrenic patients attending mental health services improvement;

Nursing

Nurses should take care of all individuals with schizophrenia, should include

routine medical evaluation by appropriate medical staff.

The health care workforce should have the education, training, and capacity to deliver high-quality care for mental and substance-use conditions.

Multiple care providers of the same patient should be coordinated.

Education

The complete treatment plan should also include a comprehensive medical workup, choice of medication and therapy options, ongoing assessment, monitoring of medication adherence, and strategies for managing ongoing psychiatric problems, interactions between substance use and the psychiatric condition, and associated medical problems.

Abstinence may not be an immediate goal but, whenever possible, treatment plans should include reconnection with family and friends, who can often serve as important support systems for long-term sobriety and psychiatric stability.

Emerging information technology related to health care should benefit people with mental or substance-use problems and illnesses.

Research funds should be used to support studies that have direct clinical and policy relevance and that are focused on discovering and testing therapeutic advances

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During the assessment, clinicians should check for medical consequences of substance use in order to facilitate diagnostic assessment, encourage patients to seek needed medical attention, and ensure an appropriate choice of psychiatric medications.

It is important that individuals who have serious mental illness and co-occurring substance should use disorders be included as active participants in treatment planning.

The necessary infrastructure exists to produce scientific evidence more quickly and promote its application in patient care.

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