NEWPORT INTERNATIONAL JOURNAL OF RESEARCH IN MEDICAL SCIENCES (NIJRMS)
Volume 3 Issue 1 2023

Knowledge of Highly Expressed Emotions among Caregivers of Patients with Mental Illnesses at Kampala International University Teaching Hospital.

Bwambale Samuel

School of Allied Health Sciences Kampala International University, Uganda.

ABSTRACT

One of the main contributors to relapse in psychological disorders is highly expressed emotion (H.E.E.), which is comprised of the critical, hostile, and emotionally over-involved attitude that caretakers have toward a patient with a mental illness. Caretakers with H.E.E. have been identified as a cause of relapse in psychological disorders. The stress from negative criticism and pity becomes a burden on the person with a disorder, and the only way to cope is to relapse. The study was conducted to assess the knowledge of caretakers of patients with mental illness on H.E.E. The study was conducted at Kampala International University Teaching Hospital (K.I.U–TH) with a cross-sectional design utilizing both qualitative and quantitative techniques, and a study population of the caretakers of the patients at K.I.U. – T.H. A sample of eighteen patients were used as this averaged the number of patients admitted in a month utilizing a consecutive sampling technique. Data was collected with the aid of questionnaires that were translated into the local language (Runyankole) and later back-translated to English and analyzed using a statistical package for social sciences. The study revealed that the caretakers had little or no knowledge of H.E.E. and its effects on the recovery process of patients with mental illness. The highest indicator was the criticism with an average of 36.8% of the respondents found to express it in view of how they answered the questions. This was followed by both emotional over-involvement and hostility at 31.6% of the total respondents. H.E.E. is thriving among caretakers of the patients at K.I.U. – T.H. There is a need to correct this via education by the health workers who are consulted by the caretakers at K.I.U. – T.H. Its effect on the recovery process has been well documented in causing higher rates of relapse in patients who have caretakers who have H.E.E.

Keywords: caregivers, mental illness, emotions, psychological disorders, relapse

INTRODUCTION

High-expressed emotion (H.E.E.) involves criticism, hostility, and emotional over-involved attitudes that caregivers and relatives express towards a person with a mental disorder [1-4]. Family members' H.E.E. is associated with a high risk of relapse in mental disorders such as schizophrenia, alcoholism, children with learning disabilities, and bipolar disorder [5-8]. The stress from negative criticism and pity becomes a burden on the person with a mental disorder, and the only way to cope is to relapse [9, 10]. The pressure from close relatives pushes the person back into their old state of mind and the criticism is too overwhelming while they try to completely recover [5]. H.E.E. is a direct factor in the relapse of a patient that has a mental disorder [1].

The evidence is now fairly clear and has been repeated on many occasions, that family members' attitudes can affect the outcome for people diagnosed with a mental disorder [11-13]. There are two important aspects to this. The first is that friends and relatives occasionally find dealing with some of the problems that can be associated with psychotic experiences such as embarrassment, socially disruptive or socially withdrawn behavior, frustrating and difficult, and sometimes become critical or actively hostile towards the individual [14-17]. The second reaction is to find the changes very upsetting and to try to look after the person rather than as if they were a child again [18, 19]. While this 'emotionally over-involved reaction is understandable and can be helpful in the short term, during recovery it can lead to dependence in the individual and exhaustion in the caretaker [20].

When either or both of these attitudes in caretakers (i.e. criticism or over-involvement) become extreme, they have been found to lead to poorer outcomes and an increased likelihood of a return of psychotic experiences [1]. In contrast, people living in more supportive, tolerant, low-expressed emotional environments tend to have a lower likelihood of a return of psychotic experiences, better social functioning, and better outcome [11, 21, 22]. Perhaps unsurprisingly, relatives who find caring particularly stressful also tend to have H.E.E. The way someone's psychotic experiences are understood and explained by their friends, relatives, and other people helping them is very important and can help determine the extent to which they are able to recover [1].

Observations, literature, and anecdotal reports indicate that an H.E.E. on patients with mental illness is affecting the recovery process. At the Department of mental health and Psychiatry at K.I.U. - T.H., some patients are being readmitted so often. However, no previous study has been conducted to assess the contribution of H.E.E. to frequent readmissions. Secondly, it is not clear whether relatives understand the concept of H.E.E. Therefore, this study aims to assess the knowledge of the caregivers and understand the association between H.E.E. and frequent re-admission of patients of mental illness at K.I.U. - T.H. in Southwestern Uganda. The results of this study are expected to provide insight into the management plan for the persons admitted at K.I.U. - T.H. with mental illness. It is also hoped that relatives will be helped to review their behavior towards the patients hence reducing readmission rates if H.E.E. is found to have a strong contribution. H.E.E. has been shown time and again to have a negative impact on the recovery of patients with mental illness and dealing with them may help prevent relapses. This study will help the relatives realize how they can promote the recovery process and prevent the frequent relapse that is associated with H.E.E.

METHODOLOGY

Study Area

Kampala International University Western Campus is a private institution with a teaching hospital i.e. K.I.U. - T.H. It is located in the town of Ishaka in Bushenyi District, Western Uganda. It is approximately 330 KM from Kampala by road. K.I.U. - T.H. is a private hospital but has a government wing that was established under a private-public partnership. The University trains Doctors, Nurses, Pharmacists, and Laboratory technologists. K.I.U. - T.H. Offers both outpatient and inpatient services. The hospital attends to about 1,500 patients in a month, of which the Department of Mental Health and Psychiatry receives an average of 15 in the outpatient daily. The bed capacity of the Mental Health ward is about 50 compared to the hospital's capacity of about 500 beds. The Department of Mental Health and Psychiatry has four consultants, three clinical officers, nurses, and an occupational therapist.

Study Design

A cross-sectional design was used with both quantitative and qualitative techniques to carry out the study. The qualitative aspect was made of open-ended questions that allowed respondents to describe their experiences. The quantitative aspect was to measure the proportion of the caregivers that possessed characteristics of H.E.E.

Study Population

Caretakers of patients with mental illness who attended K.I.U. - T.H. was the target population for this study. My focus was on those who actively took part in caring for persons with mental illness and interacting with them on a regular basis.

Sample Size Determination

Krejcie and Morgan's table was used to determine the sample size. According to the profile, K.I.U – T.H re-admits an estimated average of about 20 patients with mental illnesses in the Psychiatry and Mental Health Ward per month. Therefore, the study population was 20.

Inclusion Criteria

Caregivers of mentally ill patients who consented to take part in the study.
Caregivers of mentally ill patients who were 18 years and above both male and female.

Exclusion Criteria

The sample only excluded caregivers of mentally ill patients;

- Who did not consent to take part in the study.
- Who was not 18 years and above both male and female.

Sampling Techniques

A consecutive sampling technique was employed for the study. This involved interviewing the caregivers as they brought the persons with mental illness to receive treatment at K.I.U– TH.

Data Collection

This was done by use of questionnaires administered by the medical staff of the Department of Mental Health and Psychiatry who were well versed in the Runyankole language. The questionnaire was translated into Runyankole which was the most common language around for easier data collection then interpreted into English for data entry. I was actively involved in overseeing the data collection process.

Data Analysis

Data were analyzed using the statistical package for social sciences (SPSS). This enabled data management, statistical analysis of the collected data, and representation of information in tables and charts in an organized manner. The analysis helped to bring out possible causes of H.E.E. and point to the probable relationship between H.E.E. and the rates of relapse and re-admissions. Editing of data was done to eliminate errors and check the accuracy and completeness of the information. Coding was also done to prevent lengthy descriptions of the information.

Ethical Considerations

A letter of introduction was obtained from the office of the Associate Dean of the Faculty of Clinical Medicine and Dentistry at Kampala International University Western Campus. Confidentiality, anonymity, and privacy were guaranteed. This was accomplished by keeping the information confidential and use of serial numbers instead of names. Informed consent was also sought with a focus on the purpose of the study from respondents, the guarantee of anonymity and confidentiality, and the benefits of the study. Respondents were allowed to pull out of the study at any time and this did not affect the care that the patient would receive at K.I.U-TH.

RESULTS

Biodata of respondents

Table. 1: Age of respondents

Age	18 – 25	26 – 35	>35
Number	6	10	3
Percentage (%)	32	53	15

The majority of the respondents 53% (10) were between the ages of 26 – 35 followed by 32% (6) who were between ages 18 – 25 and finally 15% (3) who were aged above 35 years.

Table. 2: Sex of respondents

Sex	Male	Female
Number	15	4
Percentage (%)	79	21

The greatest numbers of respondents 79% (15) were male while the female were 21% (4).

Table.3: Tribe of respondents

Tribe	Number	Percentage (%)
Munyankole	11	58
Mukiga	4	21
Munyaruguru	3	16
Others	1	5

The tribe with the largest number of respondents 58% (11) was the Banyankole, the Kiga were second representing 21% (10) of the respondents while the Banyruguru represented 16% (3) of respondents and other tribes were 5% (1).

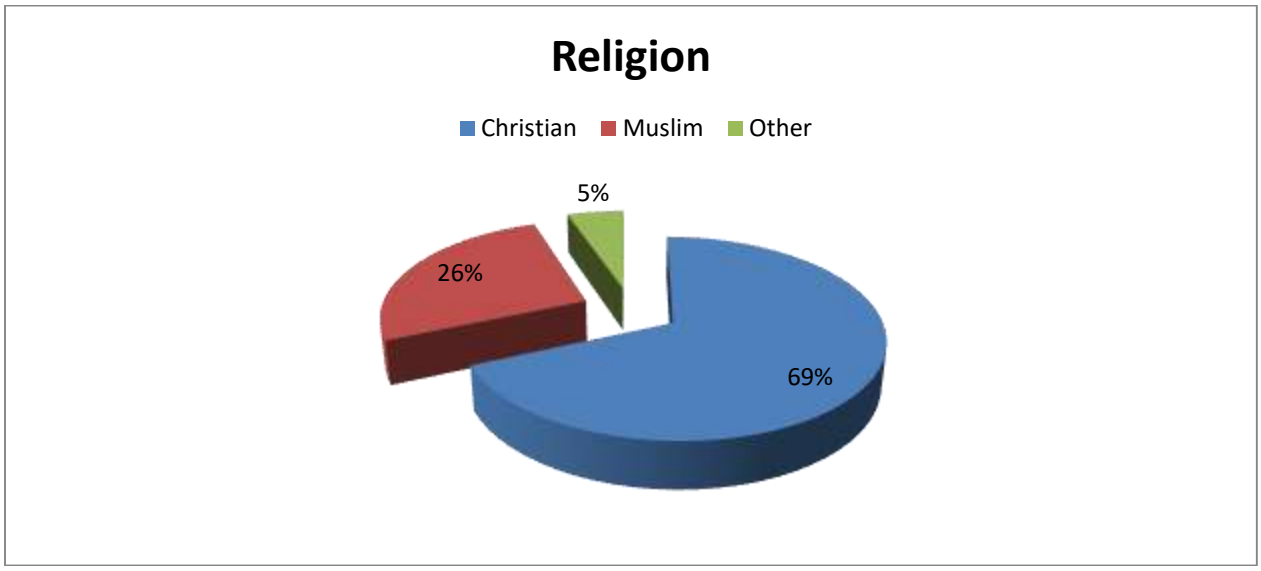

Fig.1: Religion of respondents
The majority of the respondents 69% (13) were Christians while Muslims were 26% (05), and those who either had no religion or believed in African traditions 5% (01).

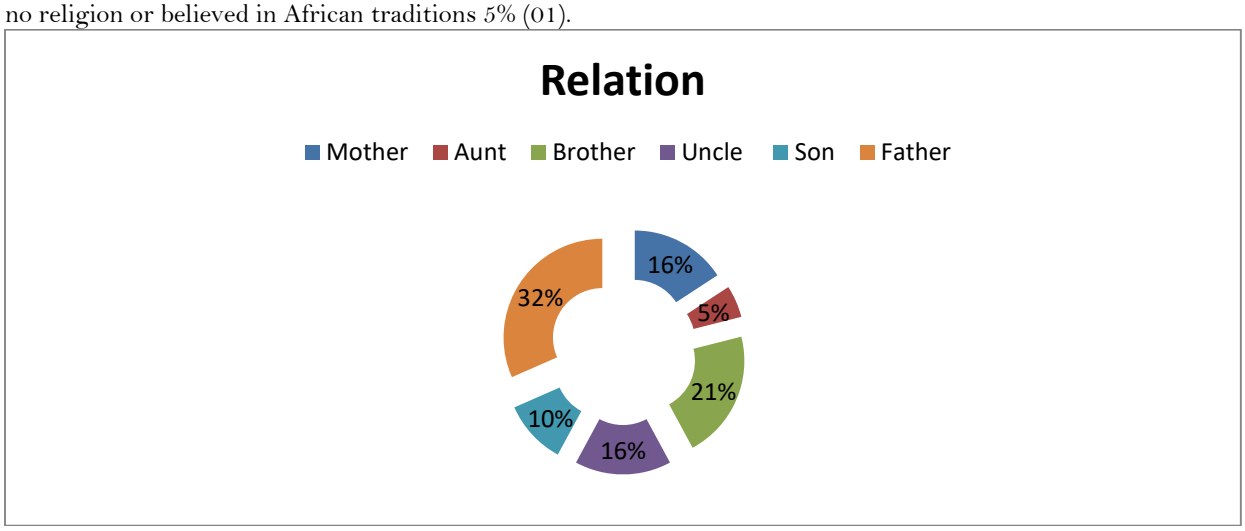

Fig.2: Relation to patient
The fathers 32% (6) represented the majority of relatives, followed closely by brothers at 21% (4). Mothers and uncles tied at 16% (3) each. Sons were 10% (2) and lastly aunties at 5% (1).

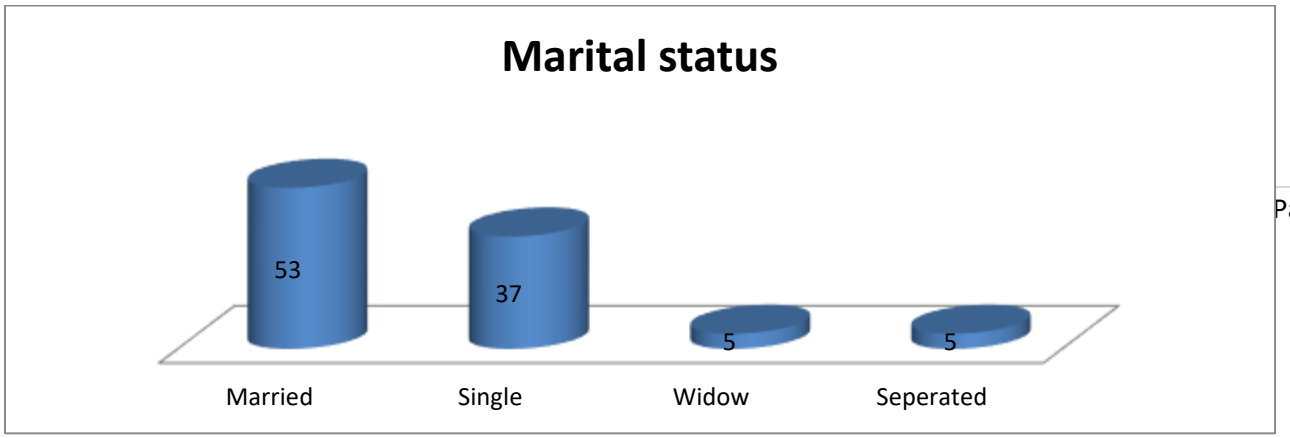

Fig. 3: Marital status of respondents

The married population was the majority at 53% (10) while the singles followed at 37% (7). The widows were 5% (1) and there was 5% (1) represented by those who were separated from their spouse.

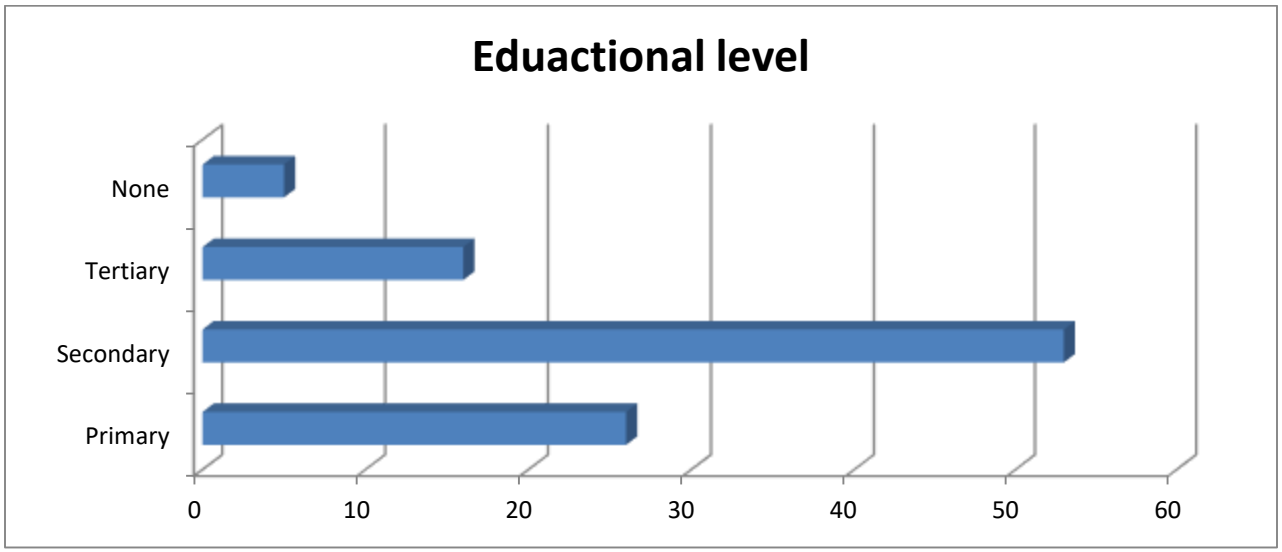

Fig. 4: The educational level of respondents

The majority of the respondents 53% (10) had attained a secondary level of education followed by 26% (05) that had a primary level of education. Those who had tertiary education were 16% (03) while the least represented those who had no formal education at 5% (1).

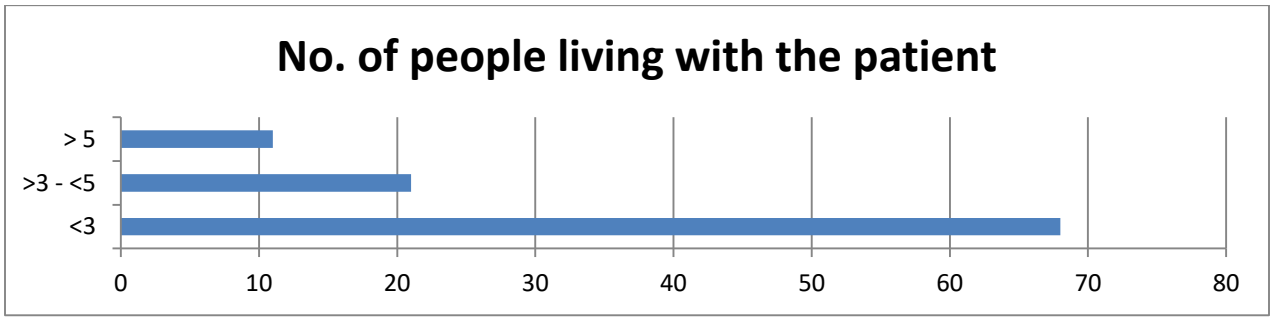

Fig. 5: Number of people living with the patient

In the majority of households, 68% (13) had less than three other people living with the patient, about 21% (4) had between three and five other people living with the patient, and 11% (2) homes had more than five other people living with the patient.

Patient's Biodata

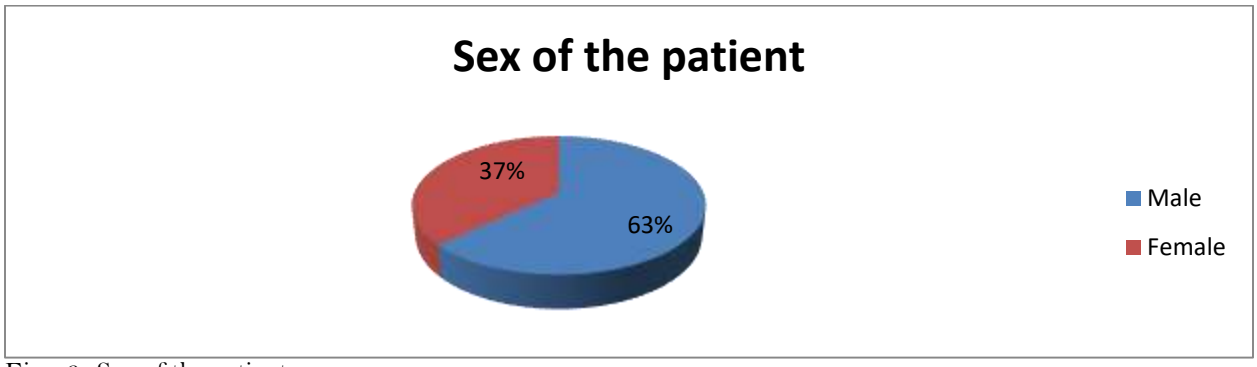

Fig. 6: Sex of the patient

The male patients made up the majority with 63% (12) and females were 37% (7).

Table 4: The educational level of the patient

Educational Level	Primary	Secondary	Tertiary	None
Number	10	6	1	2
Percentage %	53	32	5	10

The greatest number of patients 53% (10) had attained a primary level of education while 32% (6) had reached a secondary level. Those who had no formal education were 10% (2) while those who had tertiary education were the least at 5% (1).

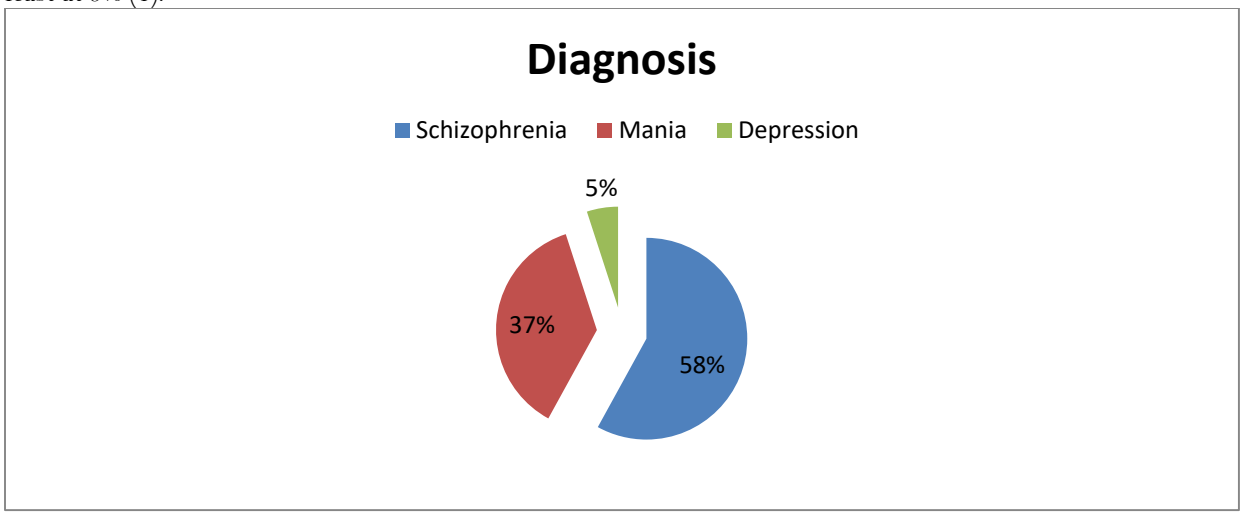

Fig .7: Diagnosis of the patient

Schizophrenia was the commonest diagnosis among the patients with 58% (11), followed closely by mania at 37% (7) and the least was depression at 5% (1).

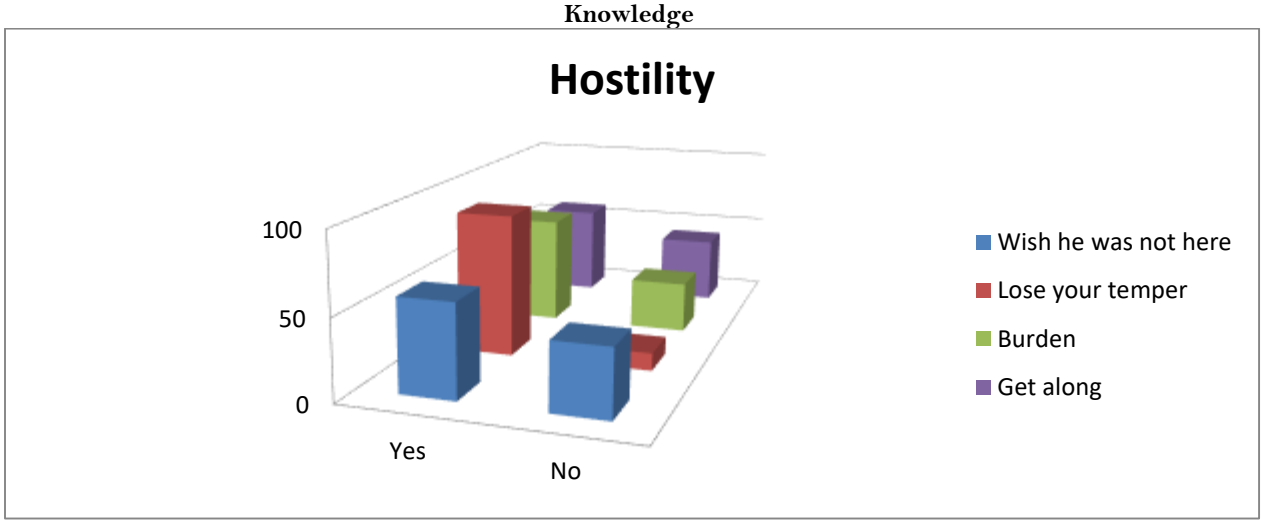

Fig. 8: Hostility

The majority of the respondents 58% (11) did not feel that they wished the patient was not around while only 42% (8) wished otherwise. Many answered yes 89% (17) that they would lose their temper with the patient while 11% (2) did not lose their temper.

The majority 68% (13) felt that the patient was a burden while 32% (6) did not feel so.

Many of the family members 58% (11) got along with the patient while 42% (8) did not.

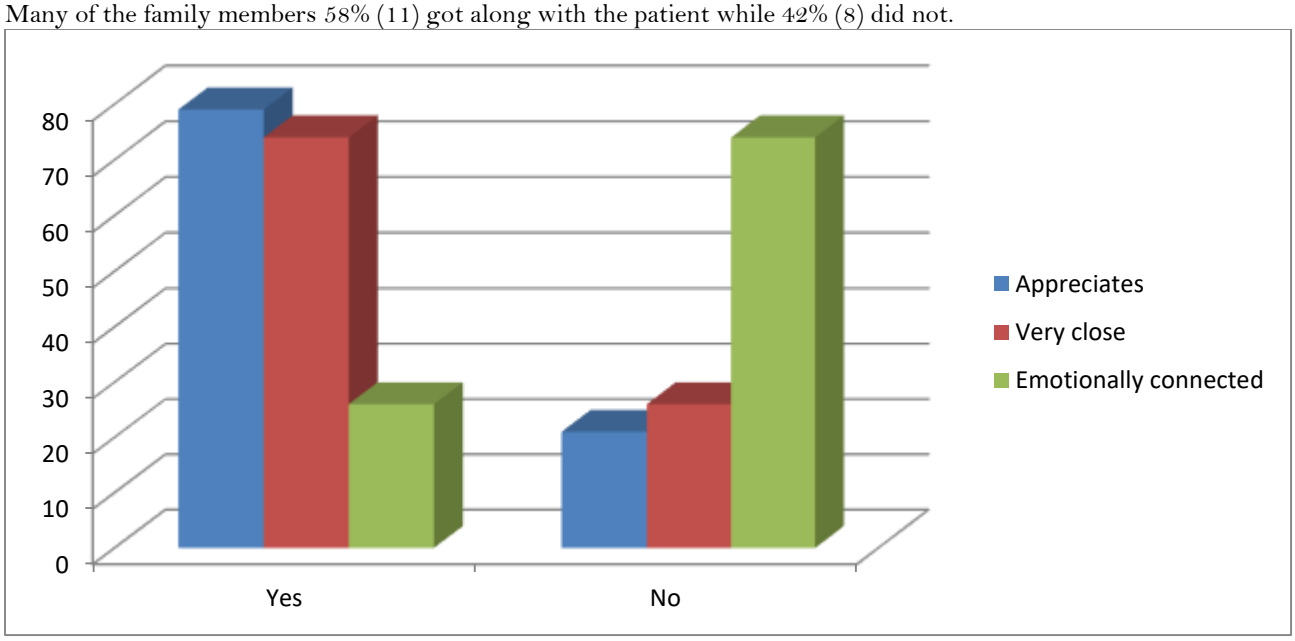

Fig. 9: Emotional Over-involvement

Most of the respondents 79% (15) felt the patient appreciated what they do for them with 21% (4) feeling they were not appreciated by the patient.

74% (14) of the respondents felt they were very close to the patient compared to 26% (5) who felt otherwise. Majority of the respondents 74% (14)) did not feel they were more emotionally connected to the patient as opposed to 26% (5) who felt a stronger emotional connection.

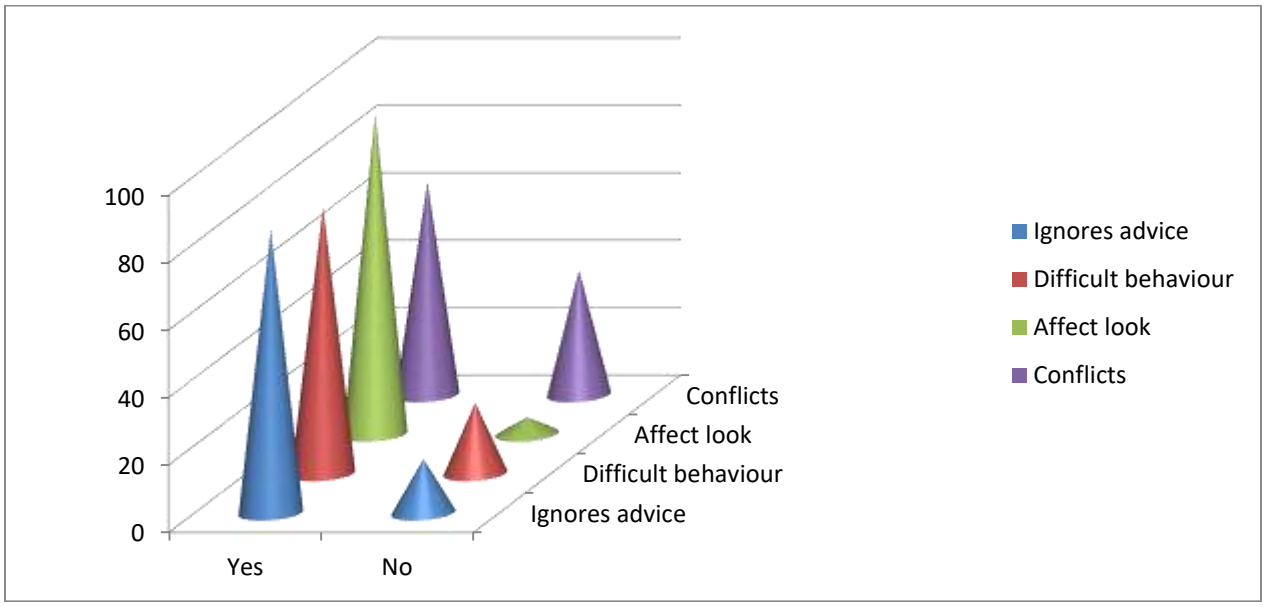

Fig. 10: Criticism

84% (16) of the respondents agreed that the patient ignores their advice while 16% (3) did not feel this way.
The majority 79% (15) felt the patient exhibited difficult behavior while the minority 21% (4) did not share the same idea.
A great proportion 95% (18) responded that the patients' illness had affected the way other people look at their family while a small group 5% (1) did not think the same.
63% (12) of the respondents had conflicts with the patient when he did things opposite to their expectations while 37% (7) did not.

What about the patient do you find enjoyable?

Some of the responses that were given were:

- He/she makes us laugh.
- He/she is always happy.
- He helps out in the house.

What do you find most disturbing?

- He/she never listens to me.
- He/she does not realize how much I sacrifice for him.
- He/she embarrasses me in public.
- The neighbors look at him/her like an animal.
- He/she cannot find a job.
- He/she will not marry or get married.

Do you feel you need to do more for the patient with regard to his/her illness?

- He/she needs prayers.
- Satisfied with what the doctors are doing.
- I think the medicine is enough.
- Let people know he is also human.

Do you think the doctors are doing enough for the patient?

Most of the respondents 79% (15) thought the doctors were not sufficiently treating the patient while 21% (4) thought the management was sufficient.

DISCUSSION

H.E.E. is a well-documented cause of relapse in patients with mental illness and assessing the knowledge of H.E.E. among their caretakers is the first step towards reducing the relapse rates which was the focus of this study. The study was able to show that most of the caretakers had no prior knowledge of the effects of H.E.E. on the recovery process of the patients [22-25].

Among the components of H.E.E. that had the highest number of respondents who responded positively was criticism. As many as 84% felt that the patient would ignore their advice. They did not seem to realize that this is a person with mental illness and his mental functioning may have been impaired by the mental illness that he/she is suffering from. The ignoring of advice as the caretakers may call it may not be intentional as they may think and improving their understanding of this may help them understand the patients' behavior better.
As many as 79% of the respondents said that the patient exhibited difficult behavior. This may be attributed to how they would approach the patient with mental illness. Impairment of mental function may make an adult behave like a child and a caretaker who does not fully understand this may be easily agitated by some of their mannerisms.

With 95% of the respondents feeling that the patient's illness affects how people look at their family may also be a major contributor to the criticism that the caretakers lay upon the patient of mental illness. The view of people towards a family member with mental illness is in many cases not the same as one would view one without mental illness. This may occur but should not make one put blame the person with the mental illness. When family members succumb to comments from neighbors about the patient, it leads to mistreatment like locking up the patient. This stress has a negative impact on the overall recovery process of the patient.
Conflicts were also common when the patient did things opposite to the expectations of the caretakers. 63% of the respondents admitted to frequent conflicts with the patients when their expectations are not met. Understanding that the level of functioning of patients with mental illness is not at its optimum may help to reduce the criticism that they are subjected to. The conflicts make the patients feel they are not recovering as well as they should and may make some refuse to take their medication because they think they are not working. Such patients may be relatively well for a while but once the drug concentrations drop to below therapeutic levels the relapse may occur.
The study was also able to uncover the high rate of hostility that patients with mental illness endure. Though most of the respondents answered no when they were asked if they wished the patient was not here, a minority 42% agreed. This is a significant number and such caretakers will obviously express hostility to the patient. This is a caretaker who wishes the patient was never born or could be taken somewhere else to receive care so that he/she does not have to deal with him at all. The recovery of a patient under the care of such a person will definitely be compromised from the word go even if the patient had made significant progress while in hospital.
While assessing hostility, as many as 89% admitted that they lost their temper with the patient. This may be attributed to the fact they are frequently disappointed by the patients' actions and reactions to certain situations. Loss of temper may lead to frequent verbal outbursts and unintended actions that may harm the patient emotionally and physically. Caretakers should be able to understand that they need to exercise greater patience with a patient with mental illness than they would with a healthy person.
A majority of respondents 68% felt that the patient was a burden to them. This may be understandable when dealing with patients of substance abuse for example, who may frequently steal items or frequently land in jail for committing offenses. Such patients may be a burden but the proper care and help like finding a job may reduce the burden. The caretaker should praise the patient when he makes progress and always be optimistic that the burden they present to them will be alleviated. It offered some reassurance when the respondents 58% admitted that the family would get along with the patient. A patient in such an environment would have a better chance to a full recovery with a possibly great reduction in the possibility of relapse. The others who did not get along with the patient are placing the patient at greater risk of relapse. The caretakers may be frequently annoyed by the patient in terms of their behavior like destruction of property and will more often than not bring them to the hospital when they can no longer take it anymore.
Emotional over-involvement was the other aspect of H.E.E. that was assessed. 79% of the respondents felt that the patient appreciated what they did for them. As this may be seen as a good response in the eyes of many, doing too much for the patient may end up being detrimental. The caretaker may be doing something with the best intention for the patient but it may have a paradoxical effect of causing a relapse of the mental illness. Such caretakers will not the patient have the independence that they had in their pre-morbid state and may want to do everything for the patient thinking the patient cannot do anything by himself.
74% of the respondents felt they were very close to the patient. This may be related to those who are taking care of a sibling or the parents taking care of their offspring or even those taking care of their parents. Such groups would find it much easier to take care of the patient due to the emotional connection. This closeness, though desirable, in its extremeness may have unwanted effects. The patient may be made to feel like he/she is useless and even what they can do for themselves will be done for them. This is also a form of stress that faces patients with mental illness who want to be self-reliant as they were before.
A small proportion 26% admitted to feeling more emotionally connected to the patient with mental illness compared to other family members. The caretakers may have good intentions but as explained above, this will lead to a paradoxical effect where the patient relapses instead of improving.

Out of all the respondents, 36.8% expressed criticism, 31.6% expressed emotional over-involvement and 31.6% expressed hostility.
The objective views of the respondents were also sought during the study. When asked what about the patient they found attractive or they enjoyed most, most said that the patient made them laugh, he/she is always happy while others appreciated that the patient could still help out with the house chores. This is encouraging as such an environment in the right proportions may positively impact on the recovery process of patients of mental illness.
On the other hand, when asked what was most disturbing some of the responses were that the patient never listens to them, he/she does not realize how much I sacrifice for him, and he/she embarrasses me in public. Such kinds of caretakers are probably those who are highly critical and exercise hostility toward the patient. Others on the same question were more worried that the neighbors looked at the patient like he/she was an animal, he/she cannot get a job, or that he/she will not marry or get married. As these concerns are genuine does not necessarily mean they will not take place with regard to jobs and marriage. Interaction with others while displaying that they are as human as others may solve the issue of being looked at like an animal.

Regarding the question as to whether they would like to do more for the patient as regards mental illness, some respondents said the patient needed prayers in addition to the medication. It is a common belief among some that mental illness is caused by demons and some will have consulted traditional healers before they bring the patient to hospital. Health workers have the task of explaining the pathology behind the mental illness. Others said the medication or the doctors' management was sufficient. Stigmatization of patients with mental illness is still rife as others commented that they would like to have people know that the patient is also human.

CONCLUSION

Patients are more likely to relapse when there is H.E.E. present in their living environment. The stress from the remarks and attitudes of the family is overwhelming because they feel like they are the cause of all the problems. The patient falls back into bad habits and forms a cycle of relapse and rehabilitation. The only way to escape this vortex is for the family to go through therapy together to prevent criticism, hostility, emotional over-involvement, and eventual relapse. Knowledge of H.E.E. and its effects on the recovery process of the patient will help families learn to accept that the family member has an illness and needs their help to improve. Educating the caretakers about mental illnesses is one way that highly expressed emotion can be reduced and no longer be an issue. Knowledge of the disorder will also help them to understand and recognize certain behaviors exhibited by the patient. The family will be more understanding of the needs and demands of the patient. Family conflicts will be lowered a great deal and interactions between the relatives will be healthier.

RECOMMENDATIONS

- All the caretakers who accompany patients either for admission or for review should be educated on H.E.E. and its effects on the recovery process of the patient by the health worker.
- There is a need to assess the caretakers for H.E.E. the health worker when a patient is readmitted to rule it out as the cause of relapse.
- Caretakers need to understand the mental functioning capacity of patients with mental illness may have been impaired by their illness and thus more patience and understanding when they do certain things is required.

REFERENCES

1. Amaresha, A. C. and Venkatasubramanian, G. (2012). Expressed emotion in schizophrenia: an overview. Indian J Psychol Med 34(1):12-20.
2. Natolooka, K., Emuron, L. and Kwagala, M. (2018). Old and New Psychological Contracts: are they Different or the Same Wine in Different Bottles? International Journal of Arts and Humanities, 4(2), 35-40
3. Vagheni, M. M., Vivalya, B. M. N., Muyisa, L. K., Masuka, R. K. and Kitoko, G. M. B (2022). Prevalence and predictors of relapse among adolescent patients with mental illness in Butembo city (Eastern Part of the Democratic Republic of Congo). *Psychiatry Research,308*, 114342.
4. Vivalya, B. M. N., Vagheni, M. M., Piripiri, A. L., Masuka, R. K., Omba, A. N., Mankubu, A. N. and Kitoko, G. M. B. (2022). Prevalence and factors associated with relapse and long hospital stay among adult psychiatric patients with a history of childhood trauma. *Psychiatry Research, 316*, 114745.
5. Githae, G. and Njango, E. (2016). Family Expressed Emotion In Relapse of Alcoholism. IOSR Journal of Humanities and Social Science, 21. 33-41.
6. Shoka, A. and Lazzari, C. (2017a). Probability of Relapse Scale (PRORES) for psychiatric inpatients. *European Psychiatry*, 41, S732.
7. Vivalya, B. M., Vagheni, M. M., Gumisiriza, N., Kitoko, G. M. B., Piripiri, A. L. and Kaputu-Kalala-Malu, C. (2020a). Implementing of mental health services in an area affected by prolonged war and Ebola disease outbreak: case of North-Kivu province, Democratic Republic of Congo. *PAMJ-One Health, 1*(8).

8. Vivalya, B. M., Bin, Kitoko G. M., Nzanzu, A. K., Vagheni, M. M., Masuka, R. K., Mugizi, W. and Ashaba, S. (2020b). Affective and Psychotic Disorders in War-Torn Eastern Part of the Democratic Republic of the Congo: A Cross-Sectional Study. Psychiatry J. 2020b; 2020:9190214.
9. Shoka, A. and Lazzari, C. (2017b). Psychiatric Risk Assessment Scale (PRAS). *European Psychiatry*, 41(S1), S731-S732.
10. Shoka, A., Lazzari, C. and Gower, K. (2017c). Length of admission into psychiatric hospitals according to diagnoses. *European Psychiatry*, *41*(S1), S250-S250.
11. Hodes, M., Dare, C., Dodge, E. and Eisler, I. (1999). The assessment of expressed emotion in a standardised family interview. J Child Psychol Psychiatry. 40(4):617-25.
12. Asogwa, E. I., Obeagu, E. I., Abonyi, O. S., Elom, C. O., Akamike, I. C., Udeoji, D. U. and Esimai, B. N. (2021) Mitigating the Psychological Impacts of COVID-19 in Southern Nigeria; Public Awareness of Routine Exercises and Preventive Measures. *Journal of Pharmaceutical Research International*, 33, 72-83.
13. Kitoko, G. M. B., Vivalya, B. M. N., Vagheni, M. M., Nzuzi, T. M. M., Lusambulu, S. M., Lelo, G. M. and Miezi, S. M. M. (2022). Psychological burden in stroke survivors and caregivers dyads at the rehabilitation center of Kinshasa (Democratic Republic of Congo): A cross-sectional study. *Journal of Stroke and Cerebrovascular Diseases*, 31(6), 106447.
14. Domínguez-Martínez, T., Medina-Pradas, C., Kwapil, T. R. and Barrantes-Vidal, N. (2017). Relatives' expressed emotion, distress and attributions in clinical high-risk and recent onset of psychosis. Psychiatry Res. 247:323-329.
15. Shoka, A., Lazzari, C. and Gower, K. (2017d). What is the prevailing diagnosis on admission into adult psychiatric wards? A meta-analysis of trends in the United Kingdom. *European Psychiatry*, 41(S1), S249-S250.
16. Abdul, Rahim GBL. (2020). A study on the Emotional Maturity of Post Graduate Students. International Journal of Creative Research Thoughts, 8(10), 3584 – 3587.
17. Rahim, A. (2023a). Emotional Maturity of Secondary School Teachers In Relation To Their Academic Qualification and Social Status. IAA Journal of Communication, 9 (1), 17-20.
18. Leff, Julian., Alexander, Barbara., Asen, Eia., Brewin, Chris., Dayson, David., Vearnals, Simon. and Wolff, Geoffrey.(2003). Modes of action of family interventions in depression and schizophrenia: The same or different? Journal of Family Therapy, 25, 357 - 370.
19. Rahim, A. (2023b). Emotional Maturity of Secondary School Teachers in Relation to Their Type of Management and Religion. IAA Journal of Social Sciences, 9(1), 7-11.
20. Kazarian, S. S. (1992). The measurement of expressed emotion: a review. Can J Psychiatry. 37(1):51-6.
21. Vivalya, B. M., Piripiri, A. L. and Mbeva, J. B. K. (2021). The resurgence of Ebola disease outbreak in North-Kivu: viewpoint of the health system in the aftermath of the outbreak in the Democratic Republic of Congo. *PAMJ-One Health*,; *5*(5).
22. Jarrar, Y., Awobamise, A., Nweke, G. E. and Tamim, K. (2022). Motivations for Social Media Use as Mediators in the Relationship Between Emotional Intelligence and Social Media Addiction. *Online Journal of Communication and Media Technologies*, 12(4), e202243.
23. Stanley,K.(2023).Evaluation of Care-Takers Awareness, Training and Approaches in the Management of Diarrhea in Children in Nawampiti Parish. IAA Journal of Scientific Research 10 (1), 28-35.
24. Nassali,S.(2023).Evaluation of the impacts of care givers on malnourished children in Ishaka Adventist Hospital. IDOSR JOURNAL OF EXPERIMENTAL SCIENCES 9 (1), 11-29.
25. Ugwu, JN.(2023)Effect of the Burden of Alzheimer Disease on Caregivers: A Review.IAA Journal of Biological Sciences 10 (1), 7-12.

Bwambale Samuel (2023). Knowledge of Highly Expressed Emotions among Caregivers of Patients with Mental Illnesses at Kampala International University Teaching Hospital. NEWPORT INTERNATIONAL JOURNAL OF RESEARCH IN MEDICAL SCIENCES (NIJRMS) 3(1):118-128.