Relationship between Level of Knowledge on Anger Control and Occurrence of Real Assaultive Behaviour in Patients (20 - 45 Years) Admitted at a National Referral Psychiatric Hospital in Zimbabwe

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Abstract

Background: Aggressive tendencies from psychiatric inpatients are increasingly becoming problematic at a national referral psychiatric hospital in Zimbabwe. No research has been done in this context to determine the dynamics around this disturbing phenomenon. **Objectives:** To determine the level of knowledge on anger control, to determine the occurrence of real assaultive behaviour and to examine the relationship between level of knowledge on anger control and occurrence of real assaultive behaviour in patients aged 20 - 45 years admitted at a national referral psychiatric hospital in Zimbabwe. **Method:** A descriptive correlational design was used. Seventy-six respondents aged between 20 and 45 years were selected using simple random sampling. A structured interview was used to collect data. The occurrence of real assaultive behaviour was adapted from the Staff Observation and Aggression Scale completed by observing patients during the assaultive behaviour occurrence. Patient observation was done by the psychiatric trained nurses who were specifically trained for this study to fill the part of the data collection instrument that needed observation. Data were analysed using descriptive statistics, Pearson Correlation Coefficient test and simple regression analysis. **Results:** Results showed a Pearson coefficient test of ($r = -3.47$, $p < 0.01$). R-Squared indicated that levels of knowledge on anger control accounts for 12% variance in the occurrence of real assaultive behaviour. **Conclusions:** Results call for collaboration of mental health practitioners to empower patients with anger control skills.

Keywords

Assaultive Behaviour, Anger Control, National Referral Psychiatric Hospital,

Risk, Psychiatric Nurses, Staff Observation and Aggression Scale-Revised

1. Introduction

Assaults pose as an increasing problem for mental health service employees. In a study conducted over three years in just one hospital, results showed that there was a total of 41,631 hospital treated assaultive injuries, 13,698 admissions and 27,933 emergency cases in patients whose age was 15 years and over [1]. One incident of assaultive behaviour constitutes a psychiatric emergency because it implies injury or death to staff, other patients and the assaultive patient himself [2] [3]. Evidence has shown that destruction of property, injury and death can result from aggression [4]. In a study conducted to determine annual rates of assaults to psychiatrists, 42% of respondents were assaulted more than once. 61% of the assaults were committed by patients from general psychiatry and half occurred during urgent assessments. 58% of assailants were known to have previously assaulted a member of staff and 88% of the assailants had been drinking alcohol prior to the assault [5].

Anger appears to be an important emotion linked to assaultive behaviour [6]. Anger and occurrence of assaultive behaviour have been studied widely and outcomes of these studies show that the majority of subjects have poor anger control [7]. As a result, anger management control programs have been developed to give alternative strategies to control and express anger impulses.

Assaultive behaviour was a major problem in cases admitted at the national psychiatric hospital in Zimbabwe at the time of the study. Assaultive behaviour was observed to be directed at family members, friends, acquaintances and health care professionals. This study therefore sets out to find out the correlation between level of knowledge on anger control and occurrence of real assaultive behaviour in patients (20 - 45 years) admitted at the national psychiatric hospital in Zimbabwe.

In the study, real assaultive behaviour was conceptualised as an event of any verbal or physical behaviour that was threatening to others, self or property. It was operationalized through the occurrence of real assaultive behaviour data sheet/scale modified from the Staff Observation Aggression Scale-Revised (SOAS-R) [8]. Level of knowledge on anger control was conceptualised as having awareness of information, insights and skills on how to control patient's own anger.

2. Methods

A descriptive correlational design was used. The variables under study were knowledge on anger control as the independent variable and occurrence of real assaultive behaviour as the dependent variable. A sampling frame was developed for inpatients that met the inclusion criteria. Simple random sampling was used in the study. The method was chosen to increase representativeness, decrease

systematic bias and decrease sampling error [9]. Respondents were chosen from the national referral psychiatric hospital. It was therefore perceived to be representative of the target population and generalisations could be made from the population from this type of setting [10].

2.1. Inclusion Criteria

The patients who were included were those who:
- Had been admitted with a history of violent behaviour at the national referral psychiatric hospital;
- Were between the ages of 20 - 45 years;
- Were confirmed to have a psychiatric disorder;
- Were able to communicate verbally in English, isiNdebele and Shona.

2.2. Sample Size

The sample size was calculated following consideration of amount of variance in the phenomenon, statistical analysis assumption, significance level, power, effect size and potential attrition rate. The medium effect size of 0.5 was utilised as recommended for nursing studies [11]. Power calculations were based on the Lipsey (1990) tables for estimating sample size [12]. In combination with other indicators for sample size, an effect size of 0.5, level of significance of 0.05 and a power of 0.80, the study had an adjusted sample of 80 patients who met the criteria for the study.

2.3. Instrumentation and Data Collection

The instrument had three parts: the demographic data, occurrence of real assaultive behaviour (modified Staff Observation Aggression Scale) and the level of knowledge on anger control part. Face to face interviews were done for the demographic data and for level of knowledge on anger control.

Demographic variables were operationalized as those attributes of the respondents that described them. These included but were not limited to age, gender, marital status, religion, employment level of education and residence. Level of knowledge on anger control was conceptualised as awareness of information, insights and skills on how to control patient's own anger. This had a minimum score and a maximum score. The score attained by the respondent indicated their level of knowledge on anger control. The minimum score represented limited knowledge on anger control while the maximum score represented adequate knowledge on anger control by the respondent.

Occurrence of real assaultive behaviour data was collected using the modified Staff Observation Aggression Scale [8]. The instrument measured frequency, severity and determinants of inpatient aggression. The researcher trained the psychiatric trained nurses to correctly record any incidents/episodes of verbal and physical abuse (incident data) as they occurred to inpatients in the study. The member of staff recording the incident indicated the target of assault, source of provocation, means used to assault, consequences for victims/results and meas-

ures taken to stop the assault. Staff recording the incidents behaved normally in their stations of clinical practice.

2.4. Ethics

Permission to conduct the study was obtained from the Medical Research Council of Zimbabwe, study site (the national referral psychiatric hospital) and from respondents who participated in this study.

2.5. Data Analysis

Data was analysed using the Statistical Package of Social Sciences (SPSS). Research questions were analysed using descriptive and inferential statistics. Descriptive statistics were used to describe demographic information, level of knowledge on anger control and occurrence of real assaultive behaviour among in patients with a history of violent behaviour (20 - 45 years) admitted at a national referral psychiatric hospital in Zimbabwe. The second stage of analysis involved examining the relationship between level of knowledge on anger control and occurrence of real assaultive behaviour among in patients with a history of violent behaviour (20 - 45 years) admitted at a national referral psychiatric hospital in Zimbabwe. A Pearson product moment correlation was calculated between knowledge on anger control and occurrence of real assaultive behaviour. Statistical significance was set at the 5% level or at alpha < 0.05. Simple linear regression was used to examine the strength of the relationship between knowledge on anger control and occurrence of real assaultive behaviour.

3. Results

The following research questions were answered:

1) What is the level of knowledge on anger control in patients with a history of violent behaviour (20 - 45 years) admitted at the nationalreferral psychiatric hospital in Zimbabwe?

2) What is the occurrence of real assaultive behaviour in patients with a history of violent behaviour (20 - 45 years) admitted at the national referral psychiatric hospital in Zimbabwe?

3) What is the relationship between level of knowledge on anger control and occurrence of real assaultive behaviour in patients with a history of violent behaviour (20 - 45 years) admitted at the national referral psychiatric hospital in Zimbabwe?

3.1. Sample Demographics

The discussion of sample demographics will dwell only on major findings for each variable. The study consisted of seventy six respondents and were all admitted at a national referral psychiatric hospital in Zimbabwe at the time of the study. The demographic characteristics of the respondents generally reflected their inherent predisposition to assaultive behaviours or tendencies.

Respondents were aged between twenty and forty five years. Results showed a

mean age of 33.64 years with a standard deviation of 7.25. Studies on assaultive behaviour and age generally support that assaultive behaviour peak in the twenties [13]. All the 76 (100%) respondents who met the inclusion criteria were male. This supports available evidence that the violent patient is typically male under the age of forty five years [14]. The majority, 88.2% were Christians. Empirical evidence has extensively demonstrated that there is a significant relationship between religion and aggression especially where the target of aggression threatens the values of the aggressor [15]. This could have been the case with assaultive Christian inpatients admitted at the national referral psychiatric hospital.

Marital status of 55% of respondents were single, 23% were divorced and only 22% were married. Studies have underscored the reality of physical and psychological aggression within marriages [16]. It is therefore possible that this could have contributed to either the singleness or divorce statuses among the respondents in the study. They probably can't cope with marriage because of their inherent vulnerability of being mentally ill. 57.9% of the respondents stayed in urban high density areas while the rest were spread between mining towns and rural areas. It has been established that aggression and violence is common among public housing residents highlighting the influence of the crowded, noisy environments on assaultive dispositions [17]. It is therefore conceivable that while psychiatric patients were admitted at the national referral psychiatric hospital, they already had the propensity for aggression owing to their preadmission environments of origin. 63.2% were unemployed and only 52.6% had attained secondary education. In a separate study, a similar conclusion was reached that lower education and unemployment are risk factors for assaultive tendencies [18].

3.2. Level of Knowledge on Anger Control

Knowledge on anger control is essential in reducing occurrence of real assaultive behaviour. On level of knowledge on anger control, the minimum score was 0 and the maximum possible score was 12. 46% of respondents scored above the mean. Results revealed a generally low level of knowledge on anger control. Scores of below 50% are a cause for concern because it shows that the respondents' level of knowledge on anger control was not adequate. The results are contra directional to the position of a study that underscored the importance of an individual knowing their anger style, learning to monitor their anger and learning to deescalate their anger [19]. That way, they would be more likely to utilise that knowledge for anger catharsis.

3.3. Occurrence of Real Assaultive Behaviour

Assaultive behaviour is of major concern in psychiatric settings. Given the high and increasing rate of assaults on other patients as revealed in this study, it would be beneficial if the psychiatric nursing staff were able to predict, anticipate and possibly identify potentially assaultive patients. Assaultive behaviour

was categorised into: how many times the patient had been assaultive during a four week period, what provoked the patient, means used for assaulting, target of assault, consequences of the assault and measures taken to stop the aggression.

In this study, during the 4 weeks of observation, the episodic frequencies were as follows:

34.2% had one episode of either physical or verbal assault closely followed by 31.6% who had more than four episodes. Related studies are clear to say that one incident of assaultive behaviour constitutes a psychiatric emergency as it implies injury or death to staff, other patients and the assaultive patient himself [2] [3]. According to literature sources, aggression in psychiatric patients can result in destruction of property injury or even death. In view of these findings, the results are a reflection of a crisis [20]. The study had 25% of patients requiring treatment and 5.3% requiring specialist treatment. It is important to note that with the crisis of this magnitude, the priority measure to stop the aggression was talking to the patient. Use of both injectable and oral medication was minimal. One wonders if the medicines were available for use.

On target of aggression, other patients were the most frequent target for violence accounting for more than half of the episodes. It is also interesting to note that the majority 46.1% of cases, the patients were provoked by other patients in the psychiatric unit while in 22% of cases the patients were provoked by being denied something. Studies have consistently indicated that assaults often take place during times of high activities and interactions such as meal times, during visiting hours and patient transportation [21].

On means used, results indicated that majority of assaults were verbal, accounting for 64% of assaults. A significant correlation between hostile verbalisation and physically assaultive behaviour was found to actually exist [22]. This means that patients who are verbally abusive are likely to be physically assaultive as well. This implies that all verbal assaults are not to be ignored but to be reported as these can escalate to physical assaults.

Measures to stop aggression included talking to the patient by staff in 44.7% of cases. It was found that there was limited medication at the institution at the time of the study. The staff therefore had limited options with which to stop the aggressive tendencies of patients. This resource constrain translated to potential for harm to staff, other patients and property.

3.4. Relationship between Level of Knowledge on Anger Control and Occurrence of Real Assaultive Behaviour

Pearson correlation analysis was used to examine the relationship between level of knowledge on anger control and occurrence of assaultive behaviour. The correlation coefficient is an index that measures the strength or magnitude and direction of a linear relationship [23]. After computing the Pearson correlation coefficient it was found to be −0.347. The negative sign (−3.47) on the correlation coefficient indicates that there is a negative linear relationship between level of knowledge on anger control and occurrence of real assaultive behaviour. It

means that as the independent variable increases, the dependent variable decreases. The results therefore support that as level of knowledge increases, there is reduction of occurrence of assaultive behaviour. It is also important to note that the level of knowledge on anger control was negatively correlated with the occurrence of assaultive behaviour($r = -0.347$, $p < 0.01$). This signifies a weak association between the independent variable and the dependent variable [24].

Regression analysis was used to examine the strength of the relationship between anger control and occurrence of real assaultive behaviour. The effect of the level of knowledge on anger control (independent variable) was indicated by R-Squared = 0.120. This means that the effect of level of knowledge on anger control accounts for 12% of the variance in occurrence of assaultive behaviour. Unstandardised beta (0.235) represented a change in the occurrence of real assaultive behaviour for every unit change in the level of knowledge on anger control. The significant Beta indicated the relative importance of the level of knowledge and occurrence of real assaultive behaviour. For the study, that importance was 34.7% in terms of contribution to the occurrence of real assaultive behaviour. The level of knowledge on anger control therefore has a negative influence on occurrence of real assaultive behaviour.

4. Discussion

Research has consistently shown that anger is an appropriate and normal response to any stimuli perceived as threatening. An individual's interests are protected and preserved because the individual would have been motivated by anger to take action. Anger and aggression also avail important set of circumstances for socialisation and establishment of willpower, self-mastery or the ability to control oneself.

Having a patient in a clinical setting translates to the fact that they would have failed to express their anger in a socially acceptable manner needing to be put in a setting where others can control him/her. Health care providers tasked with this opportunity will then need to conduct a focused patient assessment that picks those triggers that put the patient at risk of exhibiting assaultive tendencies. The assessment should include history of impulsive and aggressive behaviour, abuse of substances and their support system. In the management of the patients with assaultive behaviour, use of standardised policies and procedures should be given high priority. All these strategies become complete when the patient himself has some semblance of control on what happens to him. This translates to the notion of developing and supporting anger control skills at individual level. Empowerment of the psychiatric patient assists them to be conscious of what works for them when they are coping with stressful life events or threatening stimuli. In the process, this reduces the tendency of aggression as a default system for a psychiatric patient under pressure.

5. Implications to Practice

The following is an inference and indication of the direction nursing practice

should take in view of the study results:

- There is need to train psychiatric patients in cognitive skills of coping with and expressing anger in adaptive ways. This will prevent assaultive tendencies both in and out of custody/hospital. To target males in their thirties as they are more prone to real assaultive behaviour.
- Periodic training of staff to deal with violence in the workplace. Although there are varied ways of dealing with assaultive behaviour, preventive training of staff in risk assessment should take priority especially in the study setting where there are limited options of medications that would be needed for a violent patient.

5.1. Implications to Research

Mental health research should take cognisance of the following:

- Mental health and psychiatry should be influenced by research and be evidence based. This calls for focus of future research which should be inclined towards development of a psychological profile of patients most likely to be assaultive. Some variables that might be considered in developing such a profile include personality factors such as level of paranoia, anxiety, familial violence, childhood discipline, intellectual ability and history of assaultive behaviour.
- The findings indicate that there is need for further study on impact of verbal threats/assaults to other patients and staff.
- Further research is needed to find out more information about other variables that seem to have an effect on occurrence of real assaultive behaviour since this study revealed that level of knowledge on anger control accounts for only 12% of variance in occurrence of real assaultive behaviour.

5.2. Limitations of the Study

- Part of data was collected through observations which means those forms were filled by staff other than the researcher. This could lead to interrater unreliability. To contain this problem, observers were trained and were requested to observe and record the same events independently using developed protocol. Comparison of data was done and differences were ironed out.
- Data collected through use of the Staff Observation Aggression Scale-Revised (SOAS-R) was limited to the extent that staff observing an aggressive behaviour were able to provide an accurate account of it. This was contained by training the staff on how to correctly observe and document the observed behaviour.
- The study targeted only hospitalised patients exhibiting assaultive tendencies and excluded other patients receiving care in the community. Results cannot be generalised beyond hospitalised patient populations.
- Three languages were used in collecting data. Some respondents communicated in English while others responded in isiNdebele and Shona. It is possi-

ble that respondents might have understood questions differently.

6. Conclusion

Results call for collaboration of mental health practitioners, researchers and policy makers to empower patients with anger control skills. This will reduce occurrence of assaultive behaviour among inpatients in psychiatric units and hospitals. Preventive efforts that include identifying triggers and providing appropriate medications should be of high priority in inpatient treatment settings for psychiatric patients in Zimbabwe.

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