



THE RELATIONSHIP BETWEEN KNOWLEDGE LEVEL ON SELF-CARE AND  
OCCURRENCE OF AGGRESSION IN SCHIZOPHRENIC PATIENTS AGED 18-45  
YEARS ATTENDING THE OUT PATIENTS DEPARTMENT AT PARIRENYATWA  
HOSPITAL PSYCHIATRIC

UNIT ANNEX

BY

FUNGAI MANGWAIRA

Dissertation submitted in partial fulfilment of the degree of Master of Science in Nursing  
Science

UNIVERSITY OF ZIMBABWE

Department of Nursing Science

College of Health Sciences

May 2013

## Abstract

The Parirenyatwa Group of Hospitals Psychiatric Unit is a government referral hospital for psychiatry for all the provinces in Zimbabwe. The extent of occurrence of aggression was 11.1% for 2012 which is a cause for concern. In Ethiopia the prevalence of aggression in the community is 19.6% whereas in America 80.9% of aggression in schizophrenic patients. The purpose of the study was to examine the relationship between knowledge level on self-care and occurrence of aggression in schizophrenic patients attending the Outpatients clinic at Parirenyatwa Group of Hospitals Psychiatric Unit in April/May 2013. Orem's self-care conceptual model was used to guide the study particularly that the model emphasises on empowering the self-care agency. A descriptive correlational study design using a probability simple random sampling method was used to select a sample of 80 subjects from the Outpatient's clinic attendances. A structured interview schedule was used to collect data. The instrument used had three sections, demographic, occurrence of aggression and knowledge on self-care data questionnaires. SPSS version 10 was used for statistical analysis. Descriptive statistics were used to analyse demographic, occurrence of aggression data, knowledge on self care data. Inferential statistics were used to analyse knowledge on self care. Sixty percent of the participants were aged between 25-45 years, (52.5%) were women, and (41.2%) were married. Though the majority (95%) had gone through formal education (90%) of these were from the lower socio-economic class. Fifty percent had 1-5 episodes of aggression. Pearson's coefficient correlation showed a moderate negative correlation between knowledge level and occurrence of aggression ( $r = -.390, p < .01$ ). Regression analysis of occurrence of aggression data indicated a moderate linear relationship  $R^2 = 0.16 (F = 0.159)$  at  $p < 0.01$  therefore only 16% of aggression is accounted for by level of knowledge on self care. Patients require more input from nurses on self care to reduce the occurrence of aggression.

## ACKNOWLEDGEMENTS

I would like to express my gratitude and appreciation to my research supervisor Mrs. G. Nkoma for her unwavering academic support and patience. I would like to extend my appreciation to Mr. A. P. G. Charumbira and the lecturers in the department of Nursing Science for their academic support.

The Ministry of Health and Child Welfare and the Medical Superintendent of Kwe Kwe General Hospital for allowing me the opportunity to further my studies.

The Clinical Director of Parirenyatwa Group of Hospitals for allowing me to carry out my research study at the hospital.

The psychiatrist, the matron and staff at the Psychiatric Unit for their assistance during data collection.

Last but not least to my children Tamuka, Cristina, Tatenda, Shingirayi and Rumbidzai for moral and material support. My mother Mrs. N. Maswanise and my siblings Florence, Rutendo, Tariro, Teurai Tinashe for their encouragement and spiritual support. My brother in law Mr S.G. Mhishi and family for the moral support.

## TABLE OF CONTENTS

CONTENTS	PAGE
Abstract.....	ii
Acknowledgement.....	iii
<b>Chapter 1: BACKGROUND AND ORGANIZING PHFRAMEWORK</b>	
Introduction.....	1
Problem Statement.....	3
Purpose.....	7
Theoretical framework.....	7
Conceptual definition of terms.....	11
Research Objectives.....	11
Research Questions.....	12
Significance to Nursing.....	12
<b>CHAPTER 2: LITERATURE REVIEW</b>	
Occurrence of aggression.....	14
Knowledge Level of Self Care.....	19
Relationship between Knowledge Levels on Self	
Care and Occurrence of Aggression.....	21

Theoretical Framework.....	22
Summary .....	23
<b>CHAPTER 3: METHODS</b>	
Design.....	25
The Study Site.....	25
Sampling Plan.....	25
Target Population.....	25
Accessible Population.....	26
Sampling Criteria.....	26
Inclusion Criteria.....	26
Exclusion Criteria.....	27
Sample Size.....	27
Sampling Procedure.....	28
Variables.....	29
Conceptual and Operational Definition of Terms.....	29
Instruments.....	30
Knowledge Level on Self-care Questionnaire.....	31
Demographic Variables Questionnaire.....	32

Validity.....	32
Reliability.....	33
Pilot Study.....	33
Data Collection Plan.....	33
Protection of Human Rights.....	34
Data Collection Procedure.....	34
Data Analysis.....	35
Demographic Variables.....	35
Occurrence of Aggression Level .....	36
Knowledge Level on Self Care.....	36
Relationship between Knowledge Levels on Self-Care and Occurrence of Aggression .....	36
 <b>CHAPTER 4: RESULTS</b>	
Summary.....	36
Demographic Data.....	38
Occurrence of Aggression Data.....	41
Knowledge Level on Self-care Data.....	42

Knowledge Level on Self-care Ratings .....	44
<b>CHAPTER 5: DISCUSSION, IMPLICATIONS AND RECOMMENDATIONS</b>	
Summary .....	47
Discussion and Implications.....	47
Sample Demographic Data.....	48
Occurrence of Aggression Data.....	49
Knowledge Level on Self Care.....	50
Relationship between Knowledge Levels on Self-Care and Occurrence of Aggression.....	51
Theoretical Framework.....	51
Recommendations.....	52
Implications to Mental Health and Psychiatric Nursing....	52
Education.....	53
Research.....	53
Limitations.....	53
Summary.....	54
References.....	55

## LIST OF TABLES

TABLES	PAGE
Table 1: Demographic Data	38
Table 2: Occurrence of Aggression Data	41
Table 3: Knowledge level on self-care Data	43
Table 4: Pearson's Co-efficient correlation	45
Table 5: Regression Analysis	47



## LIST OF FIGURES

FIGURES	PAGES
Figure 1: Modified Theoretical Framework	10

## LIST OF APPENDICES

APPENDICES	PAGE
Appendix A: Informed Consent – English	61
Appendix B: English Questionnaire	64
Appendix C: Informed Consent – Shona	71
Appendix D: Shona Questionnaire	74
Appendix E: Approval letter from Medical Research Council Of Zimbabwe	79
Appendix F: Letter of Permission from Parirenyatwa Hospital	80
Appendix G: Joint Parirenyatwa Hospital and College of Health Sciences Research Ethics Committee	81

## CHAPTER 1

### Background and Organising Framework

#### Introduction

Schizophrenic patients are perceived as being dangerous. The occurrence of aggression deepens the stigma that already permeates our society as far as mental illness. Aggression is the main reason for presentation of schizophrenic patients at psychiatric emergency departments, (Rueve, Randon, Welton, 2012). The combination of Aggression and mental illness create a harsh environment with stigma, fear and a sense of isolation that negates access to employment or health care for this group of patients (World Health Organisation, 2000). The risk for aggression in schizophrenic patients is increased when the patient feels physically or psychologically damaged, denied basic rights, experiences feelings of fear or helplessness or when faced with painful or intrusive procedures, (Simon, 2010). Such aggressive behaviour is an impulsive protective mechanism that may be directed towards care givers through invasion of personal space either at home or at the community treatment centres. Eighty percent (80%) of this aggression is directed against nurses in the process of providing care, (Simon, 2010).

There are several factors that exacerbate the risk of aggressive behaviour some of which include presence of commanding paranoid delusions or auditory hallucinations and non-compliance with medication. Other factors are an unhealthy family environment characterised by poor communication or overly critical family members or rejection of the whole person by family members, (Giacco, McCabe, Hanson, Fiorillo & Priebe, 2005, Kaplan & Saddock, 1996). Most aggression occurs in populations exposed to poverty,

discrimination, violence and physical abuse and these factors play a key role in the genesis of aggression in schizophrenic patients, (Weiss, 2012).

Caffeine intake has been known generally to be a stimulant subtle as it may be it affects schizophrenic patients who have a higher than average (71%) intake of caffeine than the general population. Caffeine has been known to block adenosine ( $A_2^A$ ) receptors which elevates dopamine activities leading to worsening of psychotic symptoms and subsequent aggression, (Swanson et al, 2006).

Reduction of these factors significantly reduces the rate of occurrence of aggression through improvements of the environment in which aggressive schizophrenic patients live. The use of antipsychotic drugs like clozapine to control symptoms and reduce aggression has been successful in reducing the occurrence of aggression, (Bourget & Labelle, 2012).

Technological advances have shed light into a better understanding of the schizophrenic patients. Neuroimaging has shown deficits in the frontal lobe and para-hypocampal gyrus . This explains why schizophrenic patients perceive anger in emotionally neutral situations and fail to discriminate between intensity of emotions hence the attendance to fewer emotional cues resulting in aggression, (Bourget & Labelle, 2012). This type of information was essential in planning for appropriate interventions such as pharmacotherapy or psychotherapy depending on the need.

Adherence to prescribed drugs reduces the occurrence of aggression as part of self-care.

There are tangible costs such as loss of property and intangible costs such as the burden of care, fear, embarrassment and stigma suffered by family and society due to occurrence of aggression, (Zergaw et al, 2005). Patients suffer lost time of developing social skills and loss of personal identity, (Brady &, 2005).

### Problem Statement

Schizophrenic patients are admitted to psychiatric hospitals because of their aggressive behaviour with about 5% -10% exhibiting aggression prior admission, (Bobes et al, 2009). The prevalence rate of aggression in the community is 19.1% according to, (Zergaw et al 2011). In a study by, ( Bobes 2009) on 1410 schizophrenic outpatients 80.9% reported aggression with 15.5% reporting minor aggression and 3.6% severe aggression with grave injuries in a study carried over a six month period in America. The aggressive behaviours commonly expressed were, verbal 44%, physical aggression towards others 19%, towards objects 29%, self-directed 8%, (Bobes et al 2009). Similarly another study by (Soyka et al, 2002) established that 39% of aggressive behaviour was directed towards objects, 39% towards others and 52% of it was verbal. This shows that generally verbal aggression was the major form of aggression displayed by most patients. In a separate study, (Bowers et al, 2011) established that 44% of the aggressive behaviours was directed to clinical staff and 72% towards nursing staff this implies that staff require more safety precautions. Nurses spend most of their time with patients and 80% of them were subject to physical aggression from patients throughout their nursing career unlike 6.9 %of psychiatrists and 6.8% of custodial care givers both in institutions and community care, (Simon 2011). A study in Abeokuta found the prevalence rate for aggression to be 13.8% (Amoo & Fatoye, 2008) among schizophrenic patients.

In aggressive behaviours occurring in mentally ill patients 65% of it was accounted for by schizophrenic patients, (Steinhart et al, 1997). The same study established that those who presented with aggression at initial contact displayed similar behaviours subsequently. Non-compliance to treatment was found to increase the occurrence of aggression in the community leading to the increase in the admission of schizophrenic patients, (Bobes et al, 2008). Non adherence to medication remains a major obstacle with rates of about 50% being established in schizophrenic out patients in the first year after hospital discharge, (Barbiker, 1986, Weiden & Olfson, 1995).

Most schizophrenic patients can live independently with constant support and supervision from visiting mental health nurses, (Kupur, 2009). However in the community, (Citrome & Bienfield, 2012) established that 89.3% of aggression was directed towards family and friends while 10.7% was directed towards acquaintances. A study by (Martinez–Martin et al, 2011) established that unmet needs perceived as being important by patients were associated with aggression. These included 81.9% unresolved psychotic symptoms, 60.6% lack of day time activities, and 57.5% carrying out household chores, 37.4% inadequate food and 34% for self-care. This indicated the need for a comprehensive assessment of clients to ensure that these needs were met. In a study carried in India, (Kulhara, Avasthi, Grover, Sharma, Malhotra et al, 2009) established that the most commonly reported needs by patients were needs for welfare benefit. Needs for information on the treatment and rehabilitation of schizophrenic patients were most cited by family and friends, (Shankar, 2005).

There is a significant increase in aggressive behaviour in schizophrenic patients of 1.96 compared to the other mental illnesses, (Barlow et al, 2000). This resulted in an increased commission of aggression acts. The extent of commission of one act of aggression was

generally found to be greater than 48%. Commission of more than one act of aggression was greater than 22% in hospital settings with 7%-10% of these aggressive behaviours occurring during the day, (Smith et al, 1997).

Aggressive behaviours caused tangible and intangible costs to both the patient and care givers. Care givers suffered uncertainty, distress, and social isolation. They lost 3.2 days per month of productive work during periods of hospitalisation of these patients. Productivity loss per admission was \$453 for drugs and residual symptoms in a study done in Ethiopia. Patients suffered distress and side effects of drugs, (Zergaw, 2005).

Aggressive behaviours in schizophrenic patients need to be curtailed to improve the quality of life for both the care givers and the patients. Occurrence of aggression is also reportedly linked to an increased rate in crime with 28% of the crimes being accounted for by schizophrenic patients unlike 8% in the general population, (Hodgins et al, 2005). Lack of reduction in the occurrence of aggression increased admissions by 46.7% in psychiatric hospitals. In a study done in India it was established that 95% of the cost of treatment for schizophrenic patients was borne by the family which used half of its income in the patient's treatment, (Grover, Avasthi, Chakrabarti, Bhansali & Kulhara, 2005). In another study, (Delshpande, 2005) established that the cost of treating schizophrenic patients was similar to that of diabetes mellitus.

The economic burden for readmission was 8212pounds against 1899 pounds in Britain per 6 month direct cost. Not addressing aggressive behaviour contributed to unemployment with

95% of employers not willing to employ schizophrenic patients. Seventy percent of these patients were unemployed, (WHO, 2012) because of their history of aggression.

According to, (Mellsop & El –Badri,2006) lack of management of aggression in schizophrenic patients led to abuse of alcohol or indulgence in cigarette smoking which contributed to non-compliance with treatment. This led to a vicious cycle of aggression in the community. According to, (Hodgins et al, 2005, and Swanson et al, 2006) aggressive schizophrenic patients like all other chronically ill patients needed information on self-care and health promotion. Most of these patients lacked exercise and drank alcohol. Alcohol reduced behavioural inhibition, impulse control and has been linked to aggression, (Weiss, 2012). Hostility, violence, assault and aggression have been used interchangeably to mean threat, injure, or damage incurred on others or property in describing aggressive behaviour, (Weiss, 2012).All these are forms of aggression encountered during the course of caring for schizophrenic patients.

Controlling aggression in schizophrenic patients increases their employment chances, costs are reduced through reduced hospitalisations, (Zergaw, 2007). Similarly, ( Alden, 2007, Spivak et al, 2007) agree that use of pharmaceutical drugs reduced injury to self by 80%-85% as well as injury to others and property. However most researches have focused on aggression occurring in institutions and few studies have been done on occurrence of aggression in the community where patients live with their families.

Equipping individuals with knowledge and skills to control aggression enabled them to deal with daily life events and to become more proficient in solving problems and challenges in their lives. Stressors were less likely then, to trigger aggression in schizophrenic patients,



(Kopelowicz, Libberman & Zararate, 2006). Schizophrenic patients because of neurological deficits may lack adequate skills on self-care particularly the control of occurrence of aggression. Information required by these patients includes adherence to medication and social skills to enable independent living (Townsend, 1996). The majority 87% in Mumbai India of discharged schizophrenic patients lived with their relatives. (Srivastava et al, 2009).

Zimbabwe is no exception to the problems related to aggression by schizophrenic patients. In 2012 at Parirenyatwa Group of Hospitals Psychiatric Unit about 11.1% of patients were admitted for aggression. The current thrust is on community care hence the reason for this study.

### Purpose

The purpose of the study was to examine the relationship between knowledge levels on self-care and occurrence of aggression in schizophrenic patients attending Outpatients Department (OPD) at Parirenyatwa Hospital Psychiatric Unit.

### Theoretical Framework

Orem's self-care model was used to guide the study because it addressed the need for individuals to take an active part in maintenance of their own health. Aggressive schizophrenic patients need to control their aggression. Orem defined the four major concepts of nursing which are health, person, environment and nursing. Health was defined as the state of wholeness or integrity of the individual, his parts and modes of functioning, (Orem, 1991). Health and illness according to Orem were viewed as a continuum with universal care ability on one end and health deviation, self-care as part of the other end. Health in this study was the ability to reduce occurrence of aggressive behaviours.

## Person

Orem looked at human beings as being different from all other animals .They had an ability to consider issues about themselves, their environment and symbolise their experiences in all areas in order to satisfy their own needs or those of others. In the process of getting experiences, learning occurred. Learning depended on age, cultural beliefs, mental capacity, society and emotional state for it to have meaning, (George, 1985).

## Environment

Environment is everything, people, events or community which made people behave in a specific way, (George, 1985). Therefore the nurse through her professional knowledge and skills was able to modify the patients' environment through helping others or to be helped himself to modify it. Respecting the patients' decisions while providing care was important for his or her growth, (Fitzpatrick &Wall 1989).

## Nursing

Orem identified three subsystems in nursing, wholly compensatory, where total care is given. Partially compensatory where care is shared between the patient and the care giver because of the patient's inability to perform some self-care activities. In the educative system, the patient was capable of providing self-care but required information to do so, (George, 1985). The nurse's responsibility was to assist the client with decision making and acquisition of skills and knowledge in performing self-care activities.

In this study the supportive educative system was used to guide the study. In the supportive educative system, the client should be able to perform self-care activities such as taking

prescribed medication assisted by the nurse who uses professional skills and knowledge. Regarding knowledge on self-care and occurrence of aggressive behaviour the patient needed to be given information through education and support (George, 1985). Self-care pertains to learned behaviour the patient used to maintain and regulate his or her personal integrity.

Self-care activities are deliberate actions taken based on the perception of the outcome, (Orem, 1991). In this study occurrence of aggression in schizophrenic patients should be reduced through health education on the importance of adherence to treatment, and avoiding things that precipitate aggression. Information provided enabled the patient to cope and improve functioning. The proposed relationships between the independent and dependent variables are outlined in figure 1.

## THEORETICAL FRAMEWORK

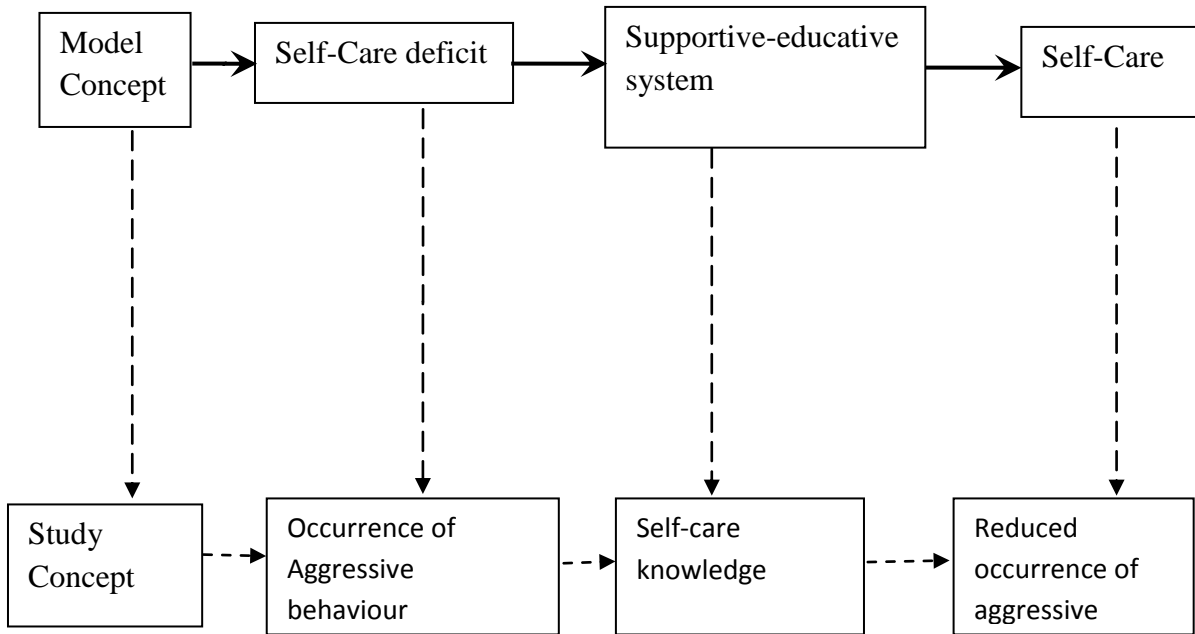


FIGURE1: Conceptual framework adapted from Dorothea Orem Self-care Model 1991.

(Modified)

## Conceptual Definition of Terms

### Knowledge on Self Care

Knowledge is the understanding and the skills that a person has acquired through experience or education, (Oxford English Dictionary, 2000). In this study knowledge refers to information given to the patients on self-care to reduce occurrence of aggressive behaviour through treatment adherence and attending reviews to maintain health.

### Occurrence of Aggression

Occurrence of aggression is the number of times a verbal threat or force is used to injure the victim's security or self-esteem per day or week or month or year (Kaplan & Saddock, 1996). In this study occurrence of aggression referred to the number of times shouting, scolding, body assault or weapons were used to damage property, in the past 12 months.

### Schizophrenia

Schizophrenia is a functional psychotic disorder characterised by disorders of thought, affect and perception, with disintegration of behaviour (Kaplan & Saddock, 1998). In this study schizophrenic patients were those whose records showed a diagnosis of schizophrenia.

### Research Objectives

1. To determine the occurrence of aggression in schizophrenic patients attending the Outpatients Department at Parirenyatwa Hospital Psychiatric Unit Annex.
2. To determine the knowledge levels on self-care in schizophrenic patients attending the Outpatients Department at Parirenyatwa Hospital Psychiatric Unit Annex.

3. To examine the relationship between knowledge level on self-care and occurrence of aggression in schizophrenic patients attending the Outpatients Department at Parirenyatwa Hospital Psychiatric Unit Annex.

#### Research Questions

1. What is the occurrence of aggression in schizophrenic patients attending the Outpatients department at Parirenyatwa Hospital Psychiatric Unit Annex?
2. What is the knowledge level on self-care and in schizophrenic patients attending Outpatients Department at Parirenyatwa Hospital Psychiatric Unit Annex?
3. What is the relationship between knowledge level on self-care and occurrence of aggression in schizophrenic patients attending Outpatients Department at Parirenyatwa Hospital Psychiatric Unit?

#### Significance to Nursing

The purpose of the study was to examine the relationship between knowledge level on self-care and occurrence of aggression in schizophrenic patients attending the Outpatients clinic at Parirenyatwa Group of Hospitals Psychiatric Unit guided by Orem's Self-care theory. Aggressive behaviour caused tangible and intangible costs to the victim, society and the perpetrator, (Zergaw, 2005). It was hoped that the findings would improve self-care practices in patients that constituted aggressive behaviour in schizophrenic patients. Knowledge of these practices would assist nurses in providing new evidence based care to their clientele.

The research findings would help care givers in the community with information relevant in assisting their sick to adhere to treatment and reduce the pain, suffering and the economic burden caused by aggressiveness. (Hodgins et al, 2008).

There may be findings to be recommended to the nurse education department to equip student nurses with new knowledge. New information gained would add to the body of knowledge of nursing or open room for further study.

This chapter has looked at the problem statement, purpose of the study, theoretical framework, conceptual definition of terms, research objectives, research questions, and significance of the study to nursing.

## CHAPTER 2

### LITERATURE REVIEW

Literature review is the analysis and synthesis of research sources to generate a picture of what is known and not known about a particular thing, (Burns &, Grove, 2009). It is an important task done very early to shape the research questions, contribute to argument about the need for a new study, suggest appropriate methods and theoretical framework or method to be used, (Polit & Beck, 2010). This chapter presents literature review in relation to the dependent variable which is occurrence of aggression and independent variable, knowledge level on self-care in schizophrenic patients.

#### Occurrence of aggression

Schizophrenia starts early in men 21.6 +-1.0 years than in women 26.10+<sub>-</sub>2.62 years. This means that women by the time they become sick, they will have already completed their education and gotten married unlike their male counterparts, (Carpeniello, Pinna, Tuscani, Zaccheddu, Fatteri, 2012). Similarly, (Nomade & Dombeck, 2009) assert that schizophrenia starts in the teens reaching vulnerability between 16-25 years with men showing symptoms around 25 years and women 25-30 years

About 5% of aggressive Schizophrenic patients are aggressive prior hospitalisation and 10% -45 % exhibit aggression during hospitalisation, (Steinhart et al, 1999). In a retrospective study, (Steinhart et al, 1996), established that those who exhibited aggression in the first admission did so with subsequent ones as shown by 63% of the patients in the same study. Repeated episodes of aggression worsen the prognosis of patients, (Kaplan & Saddock, 1996). This indicates that aggression occurred in the community before hospitalisation. The



mean number of aggressive acts in a study carried over a ten week period was 1.6 per discharged psychiatric patient. Aggression peaks at admission and remains so even after discharge until psychiatric symptoms were controlled by drugs increasing the likelihood of aggression in the community, (Rueve et al, 2008).

The occurrence of aggression was increased in those who used alcohol 28%, (Amoo & Fatoye, 2005). Other factors that contributed to the increased rate of aggression were living in environments with high expressed emotion as established in a study in Ghana. A high expressed emotion was found to have a 92% rate of violence compared with 15% in low expressed emotion, (Hodgins, Larson & Larm, 2007). The higher the level of emotional expression the higher the manifestation of an aggressive state in equal proportions. Most schizophrenic patients come from deeply disturbed families, (Kaplan & Saddock, 1996). The forms of high expressed emotion experienced include irrational hostility, criticism, relatives that were overly involved and poor or double bind messages. Tolerance of expressed emotion was associated with reduced relapse and aggression, and a healthy family environment reduced occurrence of aggression by 86%, (Barke, Nyako & Krecha, 2011). Reducing stressors within the social environments of schizophrenic patients reduced the occurrence of aggression in the community, (Giacco, McCabe, Kallert, Hanson, Fiorillo & Priebe, 2007). A study in America established that poor emotional adjustment within the family was associated with increasing the patient's psychotic symptoms such as hallucinations that are responsible for causing aggression, (Brady & McCain, 2005). Having friends was associated with favourable clinical outcomes of low levels of negative symptoms and hostility, (Glacco, 2012). According to findings done in America, it was established that patients fared better in conjugal relationships rather than with family, (Kaplan & Saddock ,1998). In an outcome

study done over ten years in Mumbai India the majority, 87% of schizophrenic patients lived with their families as established by, (Srivastava, Sritt, Thako, Shah & Chanasamy, 2009).

Researchers have found that aggression is increased in psychosis particularly in paranoid schizophrenia due to commanding auditory hallucinations or delusions, (Haycock, 2000). These hallucinations contributed to assaults against providers of care in the process of execution of their duties, (Mullen, 2006). This explain variances in staff directed aggression in which 80% of nurses were subject to assaults unlike 6.8% psychiatrists and 6.9% custodial staff during the course of their working lives, (Swanson et al, 1990, Simon, 2011). Nurses, like relatives spent more time with patients and were more likely to invade the patients' personal space increasing their proneness to aggressive outbursts.

Overcrowding and lack of facilities was cited as being contributory to the occurrence of aggression by patients and nurses especially if it was chaotic and unstable, (Citrome & Bienfield, 2012). Good relations and understanding reduced non adherence by 90% ,(Bowers, Jeffrey, Bilgihn, Jarret, Simpson & Jones, 2008).

Physical aggression reported as assaults was increased in Schizophrenic patients and was mostly reported as a criminal offence. In a Danish study, crime rate was increased 4.6 times more among men and 23.1 times among women discharged with a diagnosis of schizophrenia compared with those without a history of previous admission to a Psychiatric hospital, (Wallace et. al, 2004). Severe physical aggression was found to be equally increased when treatment was abruptly stopped, (Munro & Osborne, 2011). Non adherence to the prescribed medication was a definite cause of aggression in the community and of readmission in three quarters of the patients, (Munro & Osborne, 2011).

Failure to meet basic physiological needs generally caused unrest in individuals. In schizophrenic patients unmet needs perceived as important by patients were associated with an increased rate of aggression in the community, (Martinez-Martin et. al, 2011). The same researchers state that unmet needs included unresolved psychotic symptoms 81.9%, day time activities 60.6%, household chores 57.5%, needs for food 37.4% and self-care 34%. These problems were compounded by anergia which is common in schizophrenic patients. Family support is crucial for recovery. Family members with a higher level of education were likely to join support groups, with an advantage of 15% improved relationship with the patient, (Chatterjee, Patel, Chatterjee & Weiss, 2003). Occurrence of aggression was also associated with impulsivity and concurrent use of alcohol. Forty nine percent of schizophrenics had a life time history of alcohol use, (Mauri et. al, 2006). Alcohol is known to reduce behaviour inhibition thus it increased the likelihood of impulsivity and aggression, (Ouzir, 2013).

According to, (Swanson et. al, 2006, Martinez-Martin et al, 2011) increase in aggression was associated with a younger age, low socio-economic status and substance use commonly alcohol. In a separate study, (Rueve, 2008) contends that the rate of aggression has been found to be raised three times more in people in the low socio-economic status than those in higher socio-economic status. The same researcher also established that the rate of aggression was high in those who had a lower level of education and high rates of unemployment. The low economic status negatively influenced an individual's access to health care, education, employment such that basic human needs will not be met causing unrest in the person. Similarly, a retrospective study by, (Ali, Rehman, & Maqsood, 2007) established that schizophrenia is more prevalent in the lower socio-economic classes.

Patients stop treatment soon after discharge when they feel relatively recovered due to lack of information and cognitive impairment, (Khankeh et. al, 2011). This behaviour further causes

aggression in patients in the community. Provision of information will significantly improve treatment adherence. Schizophrenic patients in India and other developing countries did better than their counterparts in the West because of a good family support system, (Kulhara & Chakrabart, 2001).

Aggression has serious implications for society and psychiatric practice directly and indirectly affecting the patients' lives, their families and the community at large, (McCabe et al, 2007). There are tangible and intangible costs incurred to both perpetrators and victims. Pain and suffering occur in care givers such as loss in productivity of 3.12 days per each admission. This reduces family income as established in studies in Ethiopia, (Zergaw, 2005). About \$453 US is lost in drugs and residual symptoms per life years. In Britain, (Munro & Osborne 2011, Healey, 2012) assert that relapse and consequent aggression is associated with an increased economic burden ranging from £2.2 million to £9.7 million in the cost of caring and lost opportunity. The burden of care for direct cost to society per six months was an estimated £2 852 versus £1 270 -12 000 per each readmission. In Malaysia 4% of carers suffered emotional hostility, violence and disruption of family activities, (Salleh, 1994). In India carers of schizophrenic patients had the highest negative impact where the majority 30% to 60% of carers were found to suffer significant distress. In the same report about 29% to 60% of them suffered from diagnosable psychiatric disorders, (Barrowelough, 2005). Most aggression was directed towards family (89.3) and 10% towards acquaintances as established by, (Citrome & Beienfield, 2012, Buckley, Citrome, Nichita & Vitacco, 2011). A continuous pattern of hostility and verbal aggression had to be unfortunately borne by the close social group.

Presence of aggression negatively impacted on employment on the already stigmatized group because of society's perception that they were dangerous and unpredictable, (Crisp, et al,

2005). About 95% of employers were unwilling to employ schizophrenic patients resulting in 70% of the patients being unemployed and 40% being discriminated against as established in a study on 732 schizophrenics, (WHO,2012).Less than 22.6% of those with schizophrenia were involved in any type of employment program (NAMI Research Reports, 2012). Treatment successfully reduced aggressive behaviour by lowering verbal or physical aggression, (Townsend, 1999). It also reduced direct and indirect costs caused to victims, family and society, (Zergaw, 2005, Alden et al, 2007).

### Knowledge Level on Self-care

Knowledge is information gained through education or experience. (Oxford, 2000). Patients having chronic illness have multiple physical and social problems which may lead to inadequate health care provision. A study by (Holmberg & Kane, 1999) established that schizophrenic patients practised fewer health promoting activities than other psychiatric patients. Alcohol consumption among schizophrenic patients had notably become a major public health issue regarding the increased incidence of aggression in them, (WHO, 2011). Alcohol use increased the risk of non-adherence (Kaplan & Saddock, 1996). In another study non-compliance to treatment, alcohol abuse and stress was associated with a threefold increase in aggression, (Frankenburg & Dunayevich, 2013-03). Alcohol use contributed to 50% of non-compliance to medication in schizophrenic patients (MastersonO'shea,1994Tengstrom et al,2008, Vevera,2008)

Impulsivity and cognitive impairment which are part of the disease process contribute to poor health habits. According to, (Samuel & Thyloth, 2002) in their study in Bangalore they found that out of 55 patients,in 22(44%) of the cases the spouses were responsible for medication management, and in 10% the role was assumed by siblings and other relatives. Supervision of treatment is essential since antipsychotics were effective in reducing some contributing

factors to aggression,(Townsend,1996). However adherence to prescribed medication was a problem according to, (Wehring & Carpenter, 2011, Buckley, Citrome, Nichita & Vitacco, 2011).

In a study done in the United States on 133 outpatients with schizophrenia, 13% of these were aggressive with 71% of them having problems with medication compliance compared with 17% of those without aggression, (Bartels, Drake, Wallach et. al, 1991). Similar findings were made by, (Ascher-Svanm, Zhu et. al, 2006, Elbogen, Van Dorn Swanson et al 2006) in separate studies in which non adherence to medication was found to be a major contributor to aggression at a level of ( $p < 0.001$ ). Accordingly poor insight and medication non adherence operate together to increase aggression in the community, (Alia-Klein, O'Rourke, Goldstein et al, 2006). In patients who experience side effects they may decide that side effects outweigh benefits of the medication and decide to stop medication. At times people important to the patient including family and friends discouraged the patient leading to non adherence to medication, (Ali, Rehman & Maqsood, 2007)

As part of community care schizophrenic patients need to be taught the name of the drug one is supposed to take, the schedule and possible side effects for compliance, (Antai-Otong, 1995). Group therapy has been used with better outcomes in social skills training and solving daily life problems, (Townsend, 1996). Social skills training improved relations in families and increased the patient's wellness especially where the patient and relatives were both involved in psycho-education, (Ponnuchamy, 2012).

Assertive community treatment programmes are widely known to be effective in treating the most severe cases of schizophrenia. Patients are helped with daily tasks, scheduling of doctor's appointments as part of psycho-education. This enabled independent living (The Schizophrenia Patient Outcomes Research Team (PORT), 1998). Identifying what the

patient needs for care and satisfaction led to explicit negotiation between the patient and the care giver and subsequently improved self-care, (Priebe et. al, 2007).

#### Relationship between Knowledge Level on Self-care and Occurrence of Aggression

Knowledge is power that an individual uses to moderate his/her life in the prevailing circumstances. Relapse is observed by care givers before the onset of illness. It is observed through troubled sleeping, reduced eating and eventually aggressive behaviour such as physical or verbal threats (Bowers et al 2008). Provision of information to the patient and family on the disease process, medication and the consequence of non-compliance would reduce occurrence of aggression, (Townsend, 1996). Assertive training programmes in which patients are supervised and monitored by mental health nurses have been known to significantly reduce aggression to self by 80-90%, (Spivak, et al, 2007). In these programmes patients gained knowledge and skills in socialising and were helped with self-care which was found to improve their clinical outlook.

In most cases patients lived with their families. Less than 10% of these families received education and support on how to care for their sick relative even though family education has been known to improve the patient's clinical outcomes, (Brady & McCain, 2005). Information that has been known to benefit the patient include knowledge on the disease process, treatment schedule, side effects of drugs and where and when to get help, (Kaplan & Saddock, 1996). Concurrent involvement of both the patient and family is important for psychological and emotional support. Schizophrenic patients are known to have learning disabilities which hinder self-care, (Townsend, 1996). However a higher level of education was associated with more positive attitudes and better self-care ability, (Barke, Nyako, Krecha, 2011).

## Theoretical Framework

The study will be guided by Orem's Self-care Model. Orem's model has been used extensively to guide nursing research and practice including mental health and psychiatry. In a study by, (Holmberg & Kane,1999) on self-care practices in 22 schizophrenic patients it was established that this group of people lacked self-care and health promoting actions because of the nature of their illness and low socio-economic status. About 81% reported alcohol use and 66% smoked cigarettes some were overweight while others lacked exercise. This finding indicates the need for support and education so that patients are made responsible for their own health and become active participants in health maintenance .Orem points out that each adult has the right and responsibility to care for himself in order to maintain rational health and life, (Fitzpatrick & Whall, 1989).

The self-care model has been used by other psychiatric nurses in research successfully. A descriptive correlational study by (Watyoka, 2003 unpublished) on examination of the relationship between knowledge practice of controlling auditory hallucinations and occurrence of auditory hallucinations in schizophrenic patients in Zimbabwe used the theory. The research study established a low (37.5%) knowledge level in schizophrenic patients in the control of auditory hallucinations. Literature reviewed showed that unhealthy family situations, non-adherence to treatment and alcohol use are major contributors to the occurrence of aggression. However there is inadequate literature on self-care knowledge on occurrence of aggression in patients in the community. Most aggression is reported in the context of relapse or crime



## SUMMARY

Aggression is threatening behaviour which reduces the self-esteem of victims. In schizophrenic patients psychotic symptoms, use of alcohol, unmet needs and non-adherence to medication have been attributed to the occurrence of aggression in the community. Aggressive acts cause pain and suffering in the victims and perpetrators. Psycho-education has been known to benefit both the client and the family. It reduces the rate of occurrence of aggression and improves medication compliance in patients and burden of care.

## CHAPTER 3

### METHODS

This chapter addresses methods used in the study. The research methods are the steps, procedures and strategies used for gathering data and its analysis in a study (Polit & Beck, 2010). This chapter presents the design, sampling plan, sample size, sampling procedures, conceptual and operational definition of variables, data collection plan, protection of human subjects and data analysis.

#### Design

A research design is the blue print for conducting a study that maximises control over factors that could interfere with the validity of the findings, (Burns & Grove, 2009) A quantitative, descriptive correlational study design was used for this study. According to, (Polit & Beck 2010), a descriptive research design aims at observing, describing and documenting existing characteristics of individuals or groups or events. A correlational research design was preferred because it examines the existence and extent of interrelationships among two or more variables as they occur naturally in a short time whether positive or negative, (Polit & Hungler, 1985, Burns & Grove, 2009). The researcher makes no attempt to control or manipulate the situation. This study examines the relationship between knowledge on self-care and occurrence of aggression in schizophrenic patients attending the Outpatients clinic at Parirenyatwa Group of Hospitals Psychiatric Unit in 2013 between April/May.

## The Study Site

The study was carried out at Parirenyatwa Hospital Psychiatric Unit Annexe. The hospital offers preventive, curative, and rehabilitative services. The site was chosen because it is a referral hospital and presumed to offer a greater number and diversity of characteristics in the patients attending the clinic. This enabled the researcher to expect obtaining a sample that was fairly representative of the population regarding the study variables.

## Sampling Plan

A sampling plan refers to the process of selecting a portion of the population to represent the entire population in a study for generalisation of findings, (Burns and Grove, 2009). A sample is a subset of the population, (Polit & Beck, 2010). The target population for the study was schizophrenic patients attending the Outpatients clinic at Parirenyatwa Group of Hospitals Psychiatric Unit. Participants were recruited at the clinic between 0800 -1300 hours as they attended the clinic. A probability simple random method was used to select the participants. This gave every element an equal chance of participating in the study, (Burns & Grove, 2009). Those who met the inclusion criteria were included in the study. The clinic is open Mondays to Fridays but booked patients are seen Mondays and Fridays from 0800-1300 hours. The busiest days were Mondays and Fridays. It was hoped that subjects selected would be representative of the population under study at Parirenyatwa Hospital Psychiatric Unit

## Target Population

The target population is the entire population the researcher is interested in to which the results of the study can be generalised, (Polit & Hungler, 1985). The target population comprised all schizophrenic patients .

### Accessible Population

An accessible population is that number of subjects meeting the criterion for the study sample which the researcher has reasonable access, (Burns & Grove, 2009). The accessible population in this study were diagnosed stable schizophrenic patients attending the Outpatients clinic at Parirenyatwa hospital Psychiatric clinic.

### Sampling criteria

The selection criteria delineates desirable characteristics for members in the target population, (Burns & Grove, 2009). A sample is selected from a population that meets the inclusion criteria to reduce extraneous variables.

### Inclusion Criteria

These were the characteristics required in this study. Sampling criteria was the eligibility criteria which looked at characteristics essential for eligibility to participate in the study in the target population, (Burns & Grove, 2009). Inclusion criteria reduces extraneous variables, (Burns and Grove 2009). Schizophrenic patients attending OPD aged 18-45 years who were able to speak in English or Shona and were mentally stable were included in the study. Mental stability was ascertained through a quick mental status examination for eligibility and accuracy of information. The assessment looked at general hygiene, behaviour, orientation and ability to give correct residential address cross checked with the escort. The diagnosis of schizophrenia was ascertained from the patients' clinical records for inclusion in the study. Both sexes and all socio-economic classes were included. These were the characteristics required in this study.

## Exclusion Criteria

The exclusion criteria are attributes that ought to be left out in the study subjects, (Polit & Beck, 2010). The participants who were not diagnosed of schizophrenia were excluded and those found to be mentally unstable and below 18 years, (Burns & Grove, 2009). This would reduce effects of extraneous variables on the measurement of study variables. Patients attending the OPD at PGHPU who were unable to speak in English or Shona were not selected

## Sample Size

The sample size ensures validity of a study through the level of significance, effect size and power which will be used to establish the sample size from the population of those volunteering to participate in the study, (Polit & Beck, 2009). The minimal acceptance power for a study is 0.80 (80%) which is recommended for nursing researches, (Burns & Grove, 2009). The larger the power the larger the sample size. This reduces type two errors of accepting a null hypothesis when it should be rejected, (Polit & Hungler, 1985).

The significance level reduces the probability of type 1 errors of rejecting a null hypothesis when it is true. A significance level of 0.05 will be used for this study. It means 5 times out of every 100 findings will be unreliable and 95% would be correct showing that the results can be relied on. Effect size is the extent of the presence of a phenomena in a population or the degree to which a null hypothesis is false, (Burns & Grove 2009). It is measured using the Pearson's product moment correlation coefficient ( $r$ ). Effect size ranges from 0.1--0.8. The smaller the effect size (0.1--0.2) the less important the clinical findings as relationships between variables are too small as well as differences between comparison and treatment groups (Burns & Grove, 2009). An effect size of 0.3 --0.5 would be medium effect and 0.8

would be a very large and very significant value. The greater the strength the easier it is to detect the differences. An effect size of 0.5 will be used as it is conventionally accepted for social sciences (Burns & Grove, 2009). For this study based on a power of 0.80, effect size 0.5 and significant level 0.05 a sample of 80 participants were selected. According to (Lipsey, 1990), statistical table a sample of 65 would be sufficient. Eighty participants were recruited to cater for a 20% attrition and refusal rate.

### Sampling Procedure

A sampling procedure describes the manner in which study subjects are selected for a study, (Burns & Grove, 2009). The sampling procedure used in this study was the probability sampling which gives every element an equal chance to participate, (Polit & Beck 2010). In this study all schizophrenic patients attending the Outpatients clinic at Parirenyatwa Group of Hospitals had an equal chance to participate. A probability simple random sampling method was used. The sampling frame constituted all schizophrenic patients. On designated clinic days patients whose records showed a diagnosis of schizophrenia and meeting the inclusion and exclusion criteria were informed of the study. A quick mental status examination was done by the investigator to ensure mental stability. Only those found to be mentally stable and able to communicate in Shona or English and above 18 years were selected. The subjects were informed that this was purely voluntary

Eighty small pieces of papers written yes and eighty written no were folded and put in a bowl and thoroughly mixed. Participants were asked to pick papers from this bowl one at a time and those who picked a yes were eligible to participate. After the picked paper had been read it was put back into the bowl and remixed thoroughly again before the next person picked a paper. The procedure was repeated till the desired number was achieved. This gave each element an equal chance to participate in the study. Five participants were interviewed

per day over a 20 day period in May 2013 between 0800-1300 hours. Each interview lasted 20 to 25 minutes. The interviews were conducted by the investigator for uniformity and consistency.

The study variables were observed in a natural setting without manipulation by the investigator. The independent variable was knowledge level on self-care and the dependent variable was occurrence of aggression. Demographic variables were also examined.

### Variables

A variable is an attribute that takes on different values (Polit & Beck, 2010). Variables for this study were occurrence of aggression in Schizophrenic patients as the dependent variable and knowledge level on self-care as the independent variable. An independent variable causes an effect and a dependent variable is an outcome of the cause (Burns & Grove, 2009). Demographic variables were also examined.

### Conceptual and Operational Definition of Terms

Conceptual definitions provide meaning as viewed by the investigator through concept analysis (Polit & Beck, 2010).

### Occurrence of Aggression

Occurrence of aggression is the number of times a verbal threat or force is used to injure the victim's security or self-esteem (Townsend, 1985). In this study occurrence of aggression referred to the number of times a participant had expressed any verbal, non verbal or physical behaviour that is threatening towards others or objects. Patients with good self care attributes

were expected to have zero occurrence of aggression in the past twelve months. This was operationalized through an occurrence of aggression data questionnaire.

### Knowledge Level on Self Care

Knowledge is the understanding and skills that a person has acquired through experience or education (Oxford English Dictionary, 2000). Knowledge level on self-care in this study refers to the information a patient has on reducing the occurrence of aggression. This variable was operationalized through a knowledge on self-care data questionnaire

### Instruments

An instrument is a measurement device an investigator uses to collect data through questions or observations, (Polit & Beck 2010). In this study a questionnaire was used comprising three sections, Section A demographic variables, section B occurrence of aggression, section C knowledge on self-care variables.

### Occurrence of Aggression Questionnaire

The questionnaire on occurrence of aggression was constructed had three questions . The main was on number of times aggression occurred in the past twelve months. The other questions were related to circumstances surrounding the aggressive episode in order to have a better understanding of the occurrence of aggression. The mental status examination that was carried out to ensure mental stability assisted in getting accurate results from the chosen sample. Information was also validated from the relatives since these patients always come with their relatives to validate their progress. Knowing the rate of occurrence and other



parameters asked helped the researcher to understand aggression in this group of patients and provide appropriate interventions (see Appendix B). With good control through medication patients are not expected to become aggressive,

#### Knowledge Level on Self-care Questionnaire

A questionnaire on knowledge on self-care was constructed. A total of seven questions were asked with a score of zero for an undesirable answer and one for a correct answer. Six questions except for question six had one score each. Question number six had five questions each with a score of one for a correct answer giving a score of five for the question. All scores summed up for knowledge on self-care were 12 the maximum score expected for the section. A score of 0--5 was low knowledge level, 6—9 was moderate and 10--12 high knowledge level. Only two options were given for each question and with one answer being correct. The knowledge level on self-care questionnaire was used to measure these attributes see appendix D. Closed ended questions were used to enable quantification of data (Polit & Beck 2010). A face to face interview was conducted by the investigator using a questionnaire to which the participants responded. Interviews give the investigator increased control and allow for clarification of vague answers or where the body language and response do not tally (Burns and Grove, 2009). The power gradient was reduced by sitting at the same level with the patient and not having barriers in between as well as maintaining a non-judgemental attitude. The instrument was constructed in English and Shona.

#### Demographic Variables Questionnaire

Demographic variables addressed the subject's, sex, age, marital status, educational level, socio-economic status, residential area and whom the participant stayed with. This provided necessary background information to establish if these variables affected knowledge level on

self-care and occurrence of aggression in participants with schizophrenia. A demographic questionnaire was used comprising seven questions to assess these variables see appendix B. Names were not used but codes for anonymity.

### Validity

Validity is the degree to which an instrument measures what it is purported to measure (Polit & Beck, 2010). The instrument was examined by experts in the department of Nursing Science, psychiatrist, staff in the Psychiatric Unit, my research supervisor with a mental health major, the Medical Research Council and the Joint Parirenyatwa Hospital And Colledge of Health Sciences Research Ethics Committee for content and construct validity. A pilot study was conducted to pre-test the instrument. This would also ensure that results obtained in the study were a reflection of reality appropriate moderations were made on the instrument especially on the questioning technique so as not to stimulate aggression in the subjects

### Reliability

Reliability is the degree of consistence or dependability with which an instrument measures an attribute (Polit & Beck, 2010). A pilot study was carried out to correct areas that were vague and to ensure dependability, consistency and accuracy of the instrument. The main investigator carried out the interviews for consistency.

### Pilot study

A pilot study is a smaller version of a proposed study conducted to improve the instrument or other parameters within the methodology (Polit & Beck, 2010).The main purpose of conducting it was to ensure feasibility, to test the accuracy, readability of the instrument to be used and a rough guide of how much time each interview session would take.

## Data Collection Plan

Data collection plan is a detail of how a study would be implemented (Burns & Grove, 2009) It includes time frame for identifying participants, explaining the research process, obtaining the consent., data collection, data analysis and the protection of human subjects. Permission to carry out the study was obtained from the Medical Research Council of Zimbabwe via the Nursing Science Department under the Institute of Continuing Health Education and the Clinical director of Parirenyatwa Group of Hospitals. The study was conducted at Parirenyatwa Hospital Psychiatric Unit. The psychiatrist, matron and nursing staff were informed in order to get support and assistance to access a room for holding the interviews. Data was collected from the patients diagnosed of schizophrenia who met the inclusion. This was done on Mondays and Fridays from 0800 hours to 1300 hours days on which the clinics were held over a four week period in 2013-05-.01 to 31 05 13. Each interview took about 15 to 20 minutes to prevent fatigue. At least five subjects were interviewed per day by the investigator for uniformity.

## Protection of Human Rights

Human rights are claims and demands that are justified in the eyes of an individual or by the consensus of a group of individuals and are protected in research (Burns & Grove, 2009). Permission was obtained from the Medical Research Council of Zimbabwe through the department of Nursing Science and the College of Health Science, the Joint Ethical Research Review Committee and the Chief Executive Officer Parirenyatwa group of Hospitals to protect human subjects. The psychiatrist, the matron and clinical staff working in the unit were informed of the study to ensure their support.

The participants signed an informed consent form to show that they were agreeable to participate and were informed that they had the right to withdraw at any time they so felt without prejudice to treatment. Anonymity and confidentiality was assured through coding of questionnaires and the assurance that data would not be shared for confidentiality. Privacy was ensured through conducting the interviews in a side ward .There were no medical interventions hence no untoward events were anticipated. Data captured was kept locked to prevent abuse of data.

### Data Collection Procedure

Data collection procedure entails the manner in which data is obtained from the study subjects. Data was collected from 01-05-13 to 30-5-13 from Mondays to Fridays between 0800-1300 hours. After explaining the procedure to the participants in a polite manner, a structured interview using a questionnaire was used to obtain data. Interviews were conducted in a side ward for privacy before the participants were seen by the doctor to reduce threats to internal validity from probable information gained from doctors. One subject was interviewed at a time to reduce bias from discussion and to give each subject adequate time to answer questions for about 15-20 minutes. Uniformity and consistency was assured since the same questions were asked from each participant by the same data collector. Information from clients was validated through the records on the cards and the escorting relative.

### Data Analysis

Data analysis is the organisation of data to give it meaning (Burns & Grove, 2009). The Statistical Package of Social Science (SPSS) was used to analyse data.

### Demographic Variables

Demographic variables of age, sex, marital status, level of education, monthly income, residential area and whom the participant stayed were analysed using descriptive statistics.

#### Occurrence of Aggression (dependent variable)

The dependent variable was analysed using descriptive statistics to describe them.

#### Knowledge Level on Self-care (independent variable)

The independent variable was analysed using inferential statistics to describe them. The research question which was to be answered was, what is the knowledge level on self-care?

The significance level was set at 5%.

#### Relationship Between Knowledge Level on Self-care and Occurrence of Aggression

Inferential statistics were used to describe the extent of the relationship. The Pearson's product correlation coefficient ( $r$ ) was used to examine the relationship between the variables.

## CHAPTER 4

### RESULTS

#### INTRODUCTION

This chapter sought to present data obtained in the study and analyse it using a questionnaire. The instrument had three sections to it, demographic data, occurrence of aggression data and knowledge on self care data. Interviews were held during which questionnaires were filled in.

The purpose of this study was to examine the relationship between knowledge levels on self-care and occurrence of aggression in schizophrenic patients.

The dependent variable was occurrence of aggression and the independent variable was knowledge level on self-care in schizophrenic patients attending the Outpatients clinic at Parirenyatwa Group of Hospitals Psychiatric Unit.

Orem's self-care model was used to guide the study. A sample of 80 participants was selected using a simple random probability sampling technique. The results are presented below.

Table 1: Sample demographic data

( N= 80)

Variable	Frequency	Percentage
Age 18 – 25	9	11.2
26 – 35	25	31.2
36 – 45	27	33.8
Above 45	19	23.8
Gender		
Female	41	51.2
Male	39	48.8
Marital Status		
Single	21	26.5
Married	33	41.25
Divorced	21	26.5
Widow / Widower	5	6.5
Level of education		
Not educated 4		
Primary	4	5.0
Secondary	33	41.25
Tertiary	27	33.75
	16	40.0
Average monthly income		
Below \$50.00	29	36.25
\$51.00 – 200.00	31	38.75
\$201.00 – 400.00	12	15.0
\$401.00 – 600.00	4	5.0
More than \$600.00	4	5.0
Residential areas		
High density	30	37.5
Low density	29	36.2
Rural	11	13.8
Farming	8	10.0
Mining	2	2.5
Whom do you stay with		
Alone	4	5
Relatives	76	95
Friends	0	0
Other patients	0	0
Well wishers	0	0

Table 1 shows the sample demographic details of the study respondents of age, gender and marital status level of education, monthly income, residential area and whom do you stay with. The distribution of age ranges was as follows: Nine (11.2%) of the respondents' ages ranged between 18 – 25 years, 25 (31.2%) of the respondents ranged from 26-35 years, and 27 (33.8%) of the respondents' ages ranged from 36-45 years. Nineteen (23.8%) of the respondents were aged 46 years and above.

In relation to gender, 41 (51.2%) of the respondents were females and 39 (38.8%) of the respondents were males.

With regards to marital status, 21 (26.25% ) of the respondents were single, 33 (41.25%) of the respondents were married, 21 (26.5%) of the respondents were divorced and 5 (6.25%) of the respondents their spouses' were dead.

Relating to level of education, the table shows that 4 (5%) of the respondents did not go to school at all, 33 (41.2%) of the respondents obtained primary education and 27 (33.8%) of the respondents achieved secondary education while 16 (20%) of the respondents attained tertiary education.

With regards monthly income ranges: 29 (36.2%) of the respondent had a monthly income below \$50.00, 31 (38.5%) of the respondents ranged from \$51.00 - \$200.00 while 12 (15%) of the respondents ranged between \$201.00 – 400.00, 4 (5%) of the respondents ranged from \$400.00 – 600.00 and another 4 (5 %) of the respondents had a monthly income above \$600.00.

Relating to area of residence: 33 (37.5%) of the respondents lived in high density areas, 29 (38.2%) of the respondents low density areas, 11 (13.8%) of the respondents in rural areas, 8



(10%) of the respondents lived in farming areas, while 2 (2.5%) of the respondents lived in mining areas.

Concerning whom the patient stayed with, 4 (5%) of the respondents stayed alone, 76 (95%) of the respondents lived with relatives. None in the sample lived with friends, other patients or well wishers.

Table 2: Occurrence of aggression data

( N= 80)

Variable	Frequency	Percent
Occurrence		
Yes	40	50
No	40	50
Number of times: Once	22	27.5
Twice	14	17.5
Thrice	3	3.8
More than thrice	1	1.2
Proceeding events		
Provoked.	7	17.5
Felt hungry.	5	12.5
Had not taken medication.	6	15
Had taken alcohol.		
Lack of understanding by others.	10 12	25 30.0
Expression		
Shouting	3	7.5
Breaking things.	21	52.5
Fighting with others.	7	17.5
Scolding others.	7	17.5
None of the above.	2	5.0

Table 2 shows results for occurrence of aggression, number of episodes, what happen before the incident and expression of the aggression.

The table shows that 40 (50%) of the respondents did not experience aggression while 40 (50%) of the respondents experienced aggression in the past twelve months. Regarding those who experienced severe anger (n =40), 22 (27.5%) of these respondents had one episode, 14 (17.5%) of the respondents had two episodes, 3 (8.8%) of the respondents had three episodes while 1 (1.2%) experienced more than three episodes in the past twelve months.

Relating to the proceeding events, 7 (17.5%) of the respondents cited provocation, 5 (12.5%) of the respondents felt hungry, 6 (15%) of the respondents had not taken medication, 10 (25%) of the respondents had taken alcohol while 12 (30%) of the respondents cited lack of understanding by others..

Relating to the expression of anger, 3(7.5%) of the respondents reported shouting. 21 (52.5%) of the respondents cited breaking things, 7 (17.5%) of the respondents fought with others and another 7 (17.5%) of the respondents scolded others. Two (5%) of the respondents did not use any of the above methods.

Table 3: Knowledge level on self-care data

(N =80)

Variable	Frequency	Percentage
Need for a reminder:		
Yes	24	30
No	56	70
Exercising:		
Running: Yes	12	15
No	68	85
Jumping:		
Yes	15	18.8
No	65	87.2
Walking:		
Yes	7	8.8
No	73	91.2
Seeing a doctor monthly:		
Yes	10	12.5
No	70	87.5
Relating to drug problems:		
Stop taking drugs.	4	5.0
Go and see a doctor while taking medication.	59	73.75
Continue taking medication and not see a doctor	7	8.75
I do not know.	10	12.5
Side effects of drugs		
Drowsiness.	6	7.5
Salivation.	66	82.5
Tremors of the hands.	33	41.2
Body stiffness.	16	20.0
Increased energy.	4	5.0

Table 3 displays information on self-care data. The table shows that 24(30%) of the respondents needed to be reminded while 56 (70%) of the respondents did not.

Pertaining to exercises: 12(15%) of the respondents said running was good while 68(85%) of the respondents reported that it was not.

Regarding walking: 7 (8.8%) of the respondents reported that it was good while 73 (91.2%) of the respondents did not. The question related to the importance of seeing a doctor 10 of the respondents (12.5%) reported that it was important while 70 of the respondents (87.5%) did not.

With regards the importance of seeing a doctor 10 of the respondents (12.5%) said yes while 70 respondents (88.5%) said it was not important.

The question pertaining to action taken regarding drug related problems: 4 (5%) of the respondents would stop taking drugs, 59 (73.5%) of the respondents would continue taking medication and see a doctor, and 7 (8.75%) of the respondents, 10 (12.5%) of the respondents did not know what to do.

Regarding information on side effects of drugs; 6 (7.5%) of the respondents identified drowsiness, 66 (82.5%) of the respondents salivation, 33 (41.2%) of the respondents cited tremors of the hands 16 (20%) of the respondents body stiffness while 4 (5%) of the respondents increased energy.

Table 4: Total scores on knowledge level on self-care score

( N=80)

Score	Frequency	Percent
1	1	1.2
2	7	8.8
3	10	12.5
4	27	33.8
5	25	31.2
6	6	7.5
7	1	1.2
8	0	0
9	0	0
10	0	0
11	0	0
12	0	0

The table 4 shows that the scores ranged from 1-7. The average score was 3.5, the mode was 4. Seventy six (95%) of the respondents had a low level of knowledge. 4 (5%) of the respondents had a moderate level of knowledge and zero percent had a high level of knowledge.

Table 5: Pearson's coefficient correlation

N= (80)

---

Variable	
Constant	Y 1.0000
X	-0.390**

---

\* p< 0.05                      \*\*p < 0.01                      \*\*\*p < 0.001

Y = occurrence of aggression

X = knowledge on self-care.



The table 5 shows that ( $r = -0.40$   $P < .01$ ). This means then that there is a moderate negative correlation between knowledge level and occurrence of aggression. This means that as knowledge on self care increases occurrence of aggression decreases.

Table: 6 Regression analysis of occurrence of aggression

N = (80)

Variable	Beta	SE	Sig
Knowledge score	0-.583	0.252	0.558
Constant	3.959	1.203	0.159
R <sup>2</sup>	0.16		F=0.159
*P < 0.05	**P < 0.01		***P < 0.001

Table 6 shows regression analysis which was used to provide a means to estimate the value of occurrence of aggression based on knowledge level on self-care. The effect of knowledge is indicated by the significant  $R^2 = 0.16$  ( $F = 0.159$ ) at  $p < 0.01$  which indicate a moderate linear relationship. Beta of 0.159 represents change in occurrence of aggression by 1 for every unit change of knowledge of knowledge level on self-care. The bigger the (b) the more important is its contribution to occurrence of aggression. Knowledge level has a negative influence on occurrence of aggression. When knowledge level positively increases by 16% there is also a positive reduction in occurrence of aggression.

## CHAPTER 5

### DISCUSSION, IMPLICATIONS AND RECOMMENDATIONS

#### INTRODUCTION

This chapter discusses the findings, implications, recommendations and limitations of the study.

The purpose of the study was to examine the relationship between knowledge level on self-care and occurrence of aggression in schizophrenic patients attending the Outpatients clinic at Parirenyatwa Group of Hospitals Psychiatric Unit in the past twelve months.

A descriptive correlational study was carried out guided by Orem's self-care conceptual model. A probability simple random sampling method was used to select 80 subjects who met the inclusion and exclusion criteria. A structured interview schedule was used to gather data. The instrument used had three sections the demographic, aggression and knowledge level on self-care questionnaires. Data was analysed using the SPSS statistical version.

Occurrence of aggression was the dependent variable. Fifty percent of the participants experienced aggression in the past twelve months with the majority (95 % ) of these respondents having 1-2 episodes.

Knowledge level on self-care was the independent variable. Inferential statistics were used to describe data. The major finding was that 95% of the respondents had low knowledge level on self care. Pearson ( $r = -0.39$ ), showed a weak negative relationship between knowledge on self-care and occurrence of aggression. Regression analysis was done  $R = .159$ . This shows that knowledge level has a 16 % effect on occurrence of aggression

#### Sample Demographics

The sample had 80 participants who attended the Outpatients clinic at Parirenyatwa Group of Hospitals Psychiatric Unit from 01-05 to 30 05 13. Their ages ranged from 18->45 years.

The majority were aged between 25-45 years. The finding is in line with (Kaplan & Saddock, 1998 ,Swanson et al ,2006) who stated that schizophrenia starts in adolescence going into adulthood. This implied that young people were more vulnerable to schizophrenic related aggression. The sample had more females 41(52.5%) than males 39(47.5%).The finding concurs with (Wallace et al,2005) who states that aggression occurred more frequently in women 23.1 times than in males 4.6 times. The implication was that women were more vulnerable to aggression from demands placed on them by the family as they would be married when symptoms manifest, (Carpiniello et al, 2012).

The majority (41.2%) in the sample were married. This finding is supported by, (Kaplan & Saddock, 1998) that patients in conjugal relationships fared better than those who lived with parents in a study done in America. This finding was contrary to the view that schizophrenic patients were dangerous and unpredictable since they were married, (Crisp et al, 2005). It implied that schizophrenics were capable of maintaining relationships. Twenty one (26.5%) were single. This finding implied that society still viewed these patients as dangerous and unpredictable, (Crisp, et al, 2005). The majority 76 (95%) had obtained some form of education. This was supported by, (Barke et al, 2011) who stated that more positive attitudes and better health care were associated with a higher level of education. Four (5%) were not educated .This finding was supported by, ( Kaplan & Saddock , 1996) who stated that schizophrenia started in the teen years before formal education was completed. Schizophrenics also had learning disabilities which hindered their learning, (Townsend, 1996).This implied being dependent on family members, (Zergaw, 2005)

Most 72 (90%) of the respondents had an income which ranged between \$0-400 US per month. This finding contends with, (Rueve et al, 2008) Martinez-Martin, (2011) that aggression was more prevalent in people in the lower socio- economic class who had a low level of education. The burden of care continued to be borne by families whose resource base was already poor, (Zergaw, 2005). Eight participants had an income of \$400 US and above this implied better access to health care services to a very small number, (Barke et al, 2011).

There was a negligible difference between those who lived in high and low density areas .Thirty (37.5%) lived in high density areas while 29 respondents (38.8) lived in low density areas. This finding is supported by, (Citrome & Bienfield, 2012) that aggression was increased in overcrowded areas. Seventy six (95%) lived with relatives implying that the burden of care was borne by the family and the family as an institution was still integral to patient welfare as asserted by, (Zergaw, 2005, Srivastava, (2009)

#### Occurrence of Aggression

The study revealed that aggression occurred in 50% of the sample ( n=40).The mean for occurrence of aggression was 0.12 and the range was1-5 for the sample in the past twelve months. This finding is contrary to, ( Steinhart, 1999).who established that the mean number of occurrence of aggression per discharged person per week was 1.6 over a ten week period but with good control no aggression should occur in these patients. Family members still played a vital role in the reduction of the occurrence of aggression through supervision of medication and provision of other necessities, (Wehring & Carpenter, 2011, Srivastava et al, 2009). Twenty two (55%) had a single occurrence. This finding is supported by, ( Ponnuchamy, 2012) who stated that if assertive training programmes are used they have been known to significantly reduce aggression. One (2.5%) had five occurrences. This finding

implies negative social circumstances in the environment as stated by, (Hodgins et al 2007).

The writer stated that high expressed emotion had a 92% rate of aggression

In sample (n = 40), (30%) cited lack of understanding by others. The finding is supported by (Hodgins et al, 2007) who stated that the incidence of aggression was increased (92%) in environments with high expressed emotion unlike the (15%) in low expressed emotion.

Families with schizophrenic patients continued to suffer distress emotionally, physically and psychologically as cited by, (Barrowelough ,2005). Mostly the aggression was expressed as breaking things by 21 ( 52.5%) this is in line with, (Bobes et al, 2009) who asserted that 29% of aggression was directed towards objects. The implication was families suffered significant distress from these encounters with (29%-60%) suffering from diagnosable psychiatric disorders, (Barrowelough, 2005). Community training programmes remain crucial in the care of aggressive schizophrenic patients and reduction of aggressive episodes through psycho-education as purported by, (Ponnuchamy, 2012)

Twenty (25%) reported having taken alcohol prior to the incidence. This finding is supported by, ( Amoo & Fatoye, 2005) who stated that alcohol reduced inhibition and subsequently increased the incidence of aggression by (28%). However (50%) in whom aggression did not occur showed a positive outcome in line with, (Munro & Osborne's, 2011) assertion that adherence to treatment reduced the occurrence of aggression.

## Knowledge level on Self Care

Controlling aggression is crucial for the patient, family and society. The score range was 0-12 with 12 being the maximum and the mode for the scores was 4. Seventy six (95%) had a low level of knowledge and 4(5%) had a moderate knowledge level while zero percent had a score above 8. These results show knowledge levels below average which negatively affects the utilisation of health care services. The majority did not think exercises were important as shown by 68 (85%) for running, 65 respondents running (87.2%) for jumping and 73(91.2%) respondents for walking. These exercises would keep them occupied as part of meeting their social needs, (Martinez-Martin, 2011). The 4 (5%) respondents that were uneducated implied that they needed more time to be spent with them during delivery of health care services to ensure they understood instructions. This would empower the patients and improve their assertiveness skills (PORT, 1998).

### Relationship between Knowledge Level on Self-care and Occurrence of Aggression

The Pearson's correlation coefficient was ( $r=-.390$ ) implying that as knowledge on self-care increased there was a decrease in the occurrence of aggression. The regression had a weak effect on anger control accounting for a 16 % variance in the occurrence of aggression

### Theoretical Framework

Orem's self-care model was used to guide the study. The theory emphasises that given adequate information an individual would be able to take care of his/her health. The concepts adopted in the study were self-care agency, nursing agency and supportive educative system. The nursing goal was improving the patient's knowledge on self-care to reduce the occurrence of aggression in schizophrenic patients. The assumptions of the study were that patients had inadequate knowledge and having such knowledge would significantly reduce



the occurrence of aggression .This would be possible through the support and education from the professional nurse. The framework helped to examine the relationship between knowledge levels on self-care and occurrence of aggression in schizophrenic patients at PGHPU. A gap was established ( $r = -.390$ ). This finding implies that patients required more information from nurses to be able to live without experiencing occurrence of aggression.

### Recommendations

The study established that a significant number of respondents in the sample (51.2%) were females who experienced aggression therefore women should be targeted in health education campaigns to reduce the occurrence of aggression in them since the study established a negative correlation ( $r = -0.390$ ) on knowledge on self-care and occurrence of aggression in schizophrenic patients. Psychiatric nurses have to put more input on knowledge on self-care in mentally ill patients .

The results showed that regression analysis R –squared 0.159. Analytical studies are required to explore the problem further since only 16% of occurrence of aggression is accounted for by knowledge level on self-care.

Orem’s conceptual model used has shown that the theory can be used to establish self-care practices with other variables and can be used in other researches.

### Implications to Mental Health and Psychiatric Nursing

The study aimed at reducing the occurrence of aggression through improved self-care knowledge. The study established a knowledge gap in patients. Orem’s self-care model can be used to empower the self-care agency through the support and education from the professional nurse to reduce the occurrence of aggression. Nurse administrators should

enforce clinical teaching of schizophrenic patients on the importance of exercises as a way of reducing aggression.

### Education

The nurse education fraternity needs to introduce innovative ways of teaching the importance of exercises to the psychiatric nurse students during training to ensure that they impart such knowledge to their clientele.

### Research

The occurrence of aggression intimidates the victims. Future research may need to look at the impact of psycho-education in the reduction of the occurrence of aggression.

### Limitations

Limitations of the study included the fact that the study was carried out at a single referral centre and the sample used was small therefore the findings can not be generalised to other centres.

The instrument used was developed by the researcher and used without rigorous scientific testing which could negatively affect results obtained.

Local researches on the area of study were limited hence use of literature from other countries.

The time frame was too long for participants to accurately recall the frequency of the occurrence of aggression.

The study sample was heterogenous which could also affect findings

## Summary

Occurrence of aggression disturbs the integrity of its victim, the day to day activities of families or society and causes diagnosable mental disorders in family members (Barowelough, 2005.Zergaw, 2005).

The aim of the study was to examine the relationship between knowledge levels on self-care and occurrence of aggression in schizophrenic patients attending the OPD clinic at PGHPU.

Orem's self-care model was used to guide the study.

A descriptive correlational study design was used. The probability sampling method was used to select a sample of 80 subjects.

Three instruments were used to collect data, the demographic questionnaire, occurrence of aggression questionnaire and knowledge on self-care questionnaire.

The Pearson's correlation coefficient showed a weak negative correlation ( $r = -.390$ ) which means as knowledge increases the occurrence of aggression reduces. R-Squared showed that occurrence of aggression accounted for a16 % variance of knowledge on self-care

## REFERENCES

Alden, B. Breunan, P. Hodgkins S. Medinck S. (2007) Psychiatric disorder in offending in a Danish Zohory, Achieve General Psychiatry 64, 1251-1258.

Ali W and N, Masqood (2007): Schizophrenia and drug non – compliance. Professional Medical Journal, September 2006: 13(3):423-430.

Amoo. G. & Fatoye F.O, (2008). Aggressive Behaviour and Mental illness. A study of patients at Aro Neuropsychiatry Abeokuta.

Antai-Ontong, D (1995), *Psychiatry Nursing, Biological and Behavioural concepts* WB Saunders Co. Philadelphia S.

Ascher- Svanum H, Faries, D. E. Zhu .B. Et al (1999) Violence and severe mental illness. The effects of substance are abuse and non-adherence to medication AMJ. Psych (1998) 155:220-231.

Ballow K. Grengen, B. Likiw-Laville, (2000) Prevalence and precipitants of aggression in psychiatric patients.

Barbato A, Costa-Silva, J.A (2000) Schizophrenia health WHO, Geneva division of mental prevention of substance abuse

Barke, A. Nyako S., Krecha D, (2011), the stigma of mental illness in Southern Ghana attitudes of the urban population and patients views, Springer Social Psychiatry and epidemiology.

Barker, P. and Hodder E., (2009) (2<sup>nd</sup> Ed) *Psychiatry and Mental Health Nursing. The Craft of care* Arnold Publisher, United Kingdom.

Bartells, J. Drake R.E, Wallach M.A et al (1991) Characteristics, hospitality in schizophrenic out-patients, *Schizophrenia Bulletin*, 17 (1991) 163-171.

Bourget, D., and Labella, A, (2012), Management of pathologic aggression in people with psychiatric disorders, A Randomized study. *Journal of psychiatry and Neuroscience* 2012 March 31 (2) E3-E4. doi:/10.1503/jpn110174.

Bowers, L., Stewart D, Padadopeles C, Dack, C Ross J, Khanon, H, Jeffrey D., In patients violence against health care. Literature review.

Brady N., McCain, G.C, (2005), Living with schizophrenia. A Family perspective three on line journal of issues in nursing vol 10-2005 (1).

Buckley P, Citrome, L. Nichita L., Vitacco M. (2011) Psychopharmacology of aggression in nursing vol 10-2005 (1).

Burns N, and Grove S.K (2009), *The practice of nursing research. Conduct critique and utilization (6<sup>th</sup> Ed )* W.B, Saunders Elsevier Philadelphia.

Citrome L. L and Bienfield, D (2012) Aggression Medscape

Carpiniello B, Pinna, F., Tusconi,M., Zaccheddu,E. & Fatteri,F.(2012). Gender Differences in Remission and Recovery of Schizophrenia and Schizoaffective Patients: Preliminary results of a prospective cohort study.Hindawi.com/journal

Cohen, D.P, Akhata, M.S, Sidiqui, A., Shelly, C. Larkin, C. Kinsell, A., Lane, A., O'Callaghan, (2008) Aggressive incidence on a psychiatry intensive Unit. *The psychiatrist* 32: 455-458.

Crisp, A., Gelder, M., Goddard, E., Heltzer, H., Stigmatisation of people with mental illness: A follow-up study within the changing minds campaign of the Royal College of Psychiatrists. *World Psychiatry*, 2005; 4(7). 106-13.

Ehmann, T.S., Ross, D. Smith, G.N. Flynn, S. Altman, S. Honer, W.S (1997) aggression among patients with refractory psychoses schizophrenia Research vol 24 March 1997.

El-Badri and Melsop (2006) Aggression in schizophrenia assessment and prevalence 2002. *British Journal of psychiatry* 180.278-279 doi, 1192/bjp:1803278

Elbogen E.B. Johnson , S.C (2009) Intricate link between violence and mental disorder results from National Epidemiological Survey on Alcohol and Related Conditions Archives of General Psychiatry 2009; 66; 152-161.

Dombeck ,M., Wells-Moran,J., (2009). The 'bio-psycho-social model. <http://www.mentalhealthhelp.net/poc/view>.

Fitzpatrick J.J and Whall A.L (1996) *Conceptual Models of Nursing: Analysis and Application*; (3<sup>rd</sup> Ed) Appleton and Large, Stamford Connecticut.

Gelder, M.C Anderson M. Lopez-Ibor, J.J Geddes J.R (2009). *New Oxford Textbook of psychiatry* (2<sup>nd</sup> Ed) Vol 1 Oxford University Press, United Kingdom.

George J. B (1990) (3<sup>rd</sup> Ed) *Nursing Theory, the base for Professional Nursing Practice* Prenticehall International Inc. United Kingdom

Giacco D., McCabe R., Kallert T., Hauseu L., Frillo, Priebe S. (2012) Friends and symptoms dimensions in patients with psychosis. A pooled analysis. PloS One 2012, 7 (11) e50 119.

Glacco (2012, Role of a friend as a social support.

Hodgins S, Utrika L., Hoscoe, U.L, Freese R. (2003). The antecedence of aggressive behaviour among men and women with schizophrenia. A retrospective investigation of patients in a community treatment center doi. 10.1002/6s6540.

Hodgkins S, Alderton J., Cree, A., Abound A., Mark T. (2007). Aggressive behaviour victimisation among severely mentally ill patients requiring hospitalisation British Journal of Psychiatry 191,343-350 doi.1011.92/bjp.bp.104.06029587.

Hodkins S., (2008): Violent behaviour among people with schizophrenia a framework for investigations of causes and effectiveness treatment and prevention. Royal society homepage.

Holmberg, S.K., Kane, C., (1999). Health and self-care practices of personnel with schizophrenia psychiatric services, vol 50 no. 6.

Hornby, A.S. (2000). Oxford Advanced Learners Dictionary of Current English, (5<sup>th</sup> Ed) Oxford University Press United Kingdom.

Kaplan, M. D. and Saddock, B.J (1998). Behavioural Science/Clinical Psychiatry Williams and Wilkins, Philadelphia.

Khankeh, H., Rahgozar, M., (2011). The effects of Nursing discharge plan post-discharge (post –discharge education and follow-up) on self-care ability in patients with chronic schizophrenia hospitalised in Razi Psychiatric Center, Iranian *Journal of Nursing and Midwifery*\_ 2011, 16 (2) 162-168

Kopelowicz, A., Liberman, R.P. & Zarate, R. (2006). Recent Advances in Social Skills Training for Schizophrenic Patients. *Schizophrenia Bulletin* (2006)32(suppl 1) 512-523

Mauri M.C Volunteri L.S, DeGaspari, F. Bambilla M.A, Ceruti L. (2006) Substance abuse in first episode schizophrenic patients: A retrospective study. *Clinical practice and Epidemiology*.

Lehman, A, Lieberman, J, Dixon, L, B, McGashan, T, H, Miller, A, L, Perkins, D, O, Kreyenbuhl, J, Buchman, R.W., Dickerson, F.B., Dixon, L.B., (2009). Treatment of patients with schizophrenia. *Schizophrenic patients outcomes research (PORT)*. 2009. *Schizophrenia Bulletin*.

Martinez-Martin, N. Fraguas, D, Garcia-Portillia M.P., Saiz, P.A, Bascaran, M.I, Arango, C. Bobes, J. (2011). Self-perceived needs are related to violent behaviour among. *Schizophrenia out-patients. The Journal of Nervous and Mental disorder. (impact factor 177)*. 09/2011;199(9);666-71.

Maxon, A.M Ranonk, K.A (2008). Providing information to relatives and patients about expressed emotion and schizophrenia in a community support setting. A randomized controlled trial.

McCabe, R., Saidi, M., Priebe, S., (2007). Patient reported outcomes in schizophrenia. *The British Journal of Psychiatry*.

Munro J. and Osborne, S., Dearden, L., Pscoe, K., Ganth, A., Price, M., (2011). Hospital treatment and management in schizophrenic relapse, 85:95-100. Doi.10.1192/bp.bp1.09027.

Nemade, R., Dombeck, M., (2009). Schizophrenia medication and treatment options. *Mental health net*.



Ouzir, M., Impulsivity in schizophrenia. A comprehensive update. Aggression violence Behav.18:247-254

Oyeboode, F (2008) (4<sup>th</sup> Ed) Sims Symptoms in the mind. An introduction to descriptive psychopathology.

Polit, D.F and Beck C.T (2010). *Essentials of Nursing Research Appraising evidence for nursing practice* (7<sup>th</sup> Ed) Williams and Wilkins Philadel

Polit D.F and Hungler B. (1985). *Essentials of Nursing Research Methods and application* J.B., Lippincott Co. Philadelphia.

Ponnuchamy L (2012). Social work intervention for disability management of persons with schizophrenia in India with reference to rural areas. The international Journal of Psychosocial Rehabilitation.

Pribe et al (2007), Randomised controlled trial.

Raine, A. (2006). Crime in schizophrenia Nova science Publication Inc.

Rueve M.E., Utelton R.S (2012). Violence and Mental illness Psychiatry (Edgemount).

Serper, M, R, (2013). Aggression in schizophrenia. Schizophrenia Bulletin vol. 37.Issue2013.

Shankar , A.(20030),Schizophrenia update .Excerpt from:In Mental Health Research Archives; a clash over funding priorities ; <http://www.washingtonpost.co/wp-dyn/articles/a26279-2003 Dec 23.html>.

Sing, J, P, Serper, M, Reinhart,J, Fazel, S, (2011). Structured assessment of violence risk in schizophrenia and other psychotic disorders; a systematic review of validity, reliability and item content of 10. Schizophrenia, Bulletin, (2011). Vol.37:899-912.

Simon, R.I., (2011). Patients violence against Health care professional. Safety assessment and management. Psychiatry Times.vol. 28,no 2, 03.03.2011.

Soyka, M., (2011).Neurobiology of aggression and violence. Schizophrenia Bulletin,2011; 37:913-920.

Spivac, B., Mester, R.W., Henberg,N., Maman Z., Weizman, A., (1997). Reduction of aggressiveness and impulsivity during clozapine treatment in chronic neuroleptic-resistant schizophrenic patients. Clinical Neuropharmacology/20442-446-Article Pub Med.

Srivastava, A.K., Stitt, L.Thakar, M., Shah, N. & Chanasamy.G. (2009). The Abilities of Improved schizophrenic patients to work and live independently in the community :A 10 year long-term outcome study from Mumbai India . Annals of General Psychiatry 2009,8;24

Steinhart, T. Weib, C., Gebhardt K.P (1999). Aggressive behaviour against self and others amongst first admission patients with schizophrenia. A retrospective study. Psychiatric services archives of psychiatry.

Swanson, J.W., Holzer, C.E., Ganjuv, K., Jono, R.T (1990). Violence and psychiatric disorders in the community evidence from epidemiologic catchment area surveys hospital community 1990.

Swanson, J.W., Swartz, M.S. Van Don, R.A., et al (2006). A national study of violence behaviour in persons with schizophrenia. Archives of General Psychiatry. 63(5) 490-499.

Townsend , M.C, (1996) Psychiatry and Mental Health Nursing concepts of care. E.A. (2<sup>nd</sup> Ed) Davis Co. Philadelphia. .

Volavka, J, and Citrome L, (2011): Pathways to aggression in schizophrenia affects results of treatment: SchizophrBull, 2011: 37:921 – 921.

Wallace, C, Mullen, P, Palmer, S, Ruschena, D, Browne, C, Serious criminal offences and mental disorder, case linkage study. *British Journal of Psychiatry* 1998;172:472-484.

Watyoka, H.(2003). A study to investigate the relationship between the occurrence of auditory hallucinations and the control auditory hallucinations in schizophrenic at Parirenyatwa and Harare Psychiatric Hospital ,University of Zimbabwe, Zimbabwe.

Weiss, E.M (2012). Neuroimaging Neurocognitive correlates of aggression and violence in schizophrenia. *Hindawi scientific vol 2012 (2012) Artidero 158646*.

Wehringh.J. and Carpenter, W.T. (2011).Violence in schizophrenic patients. 2011.37(5) 877-878 doi;10,1093/schbul/sbr094

Zergow, A ., (2005). Economic burden of personality disorders schizophrenia and bipolar disorder in Ethiopia.

Appendix A

DEPARTMENT OF NURSING SCIENCE

COLLEGE OF NURSING SCIENCE

UNIVERSITY OF ZIMBABWE FACULTY OF MEDICINE

INFORMED CONSENT FORM

PROTOCOL TITLE: The relationship between knowledge level on self-care and occurrence of extreme anger in people living with schizophrenia attending Outpatient's at clinic at Parirenyatwa Hospital Psychiatric Unit Annex.

NAME OF RESEARCHER: FUNGAI MANGWAIRA

PHONE NUMBER (CELL): 0773 530 679

YOUR RIGHTS:

Before you decide whether or not to participate in this study you must understand the following things. The aim of study to establish the amount of knowledge people living with mental illness have with regards the number of times feelings of extreme anger occurred in the past twelve months. Information obtained will help to improve the livelihoods of mentally ill people. There are no risks expected as no external treatments will be given. During the study you will be asked several questions about yourself some of which may be personal, some related to the number of times severe anger may have occurred and the amount of knowledge you have on how to take care of yourself. This process is called the informed consent.

#### PURPOSE

You are invited to take part in a research which study aims to examine the relationship between the amount of knowledge mentally ill people have on how to take care of themselves and the number of times severe anger may have occurred in the past year in patients attending Outpatient's clinic at Parirenyatwa Hospital Psychiatric Unit Annex.

#### PROCEDURES INVOLVED IN THE STUDY:

Questions will be asked in private to obtain information about the patient, occurrence of extreme anger and your knowledge on how you maintain good health. The questions will be asked in private for confidentiality and this will take about 20-30 minutes .It is hoped that no discomforts or risks will occur as no medication will be given or non-natural things will be done during the study .Information that you provide will not be shared and names will not appear anywhere in the research report.

#### POTENTIAL BENEFITS:

This study will not immediately benefit you now but in future .Information obtained will help the you and other people living with mental illness to take care of themselves and reduce the number of times severe anger occurs in these people. This will help health personnel understand and provide better care for people living with mental illness.

**STUDY WITHDRAWALL:**

You may choose to enter or withdraw from the study at any time without loss to present or future treatment entitled to you

**CONFIDENTIALITY:**

No names will be used on the interview forms or in the research report to maintain privacy. Interview forms will be kept locked at all times and information obtained will be known by the researcher and research supervisor only.

**AUTHORIZATION**

I have read this paper about the study /it was read to me .I understand the possible risks and benefits of participating in this study .I know being in the study is voluntary .I choose to be in this study .I know I can stop being in the study and I will not lose benefits entitled to me. I will get a copy of this consent form.(Initial all the previous pages of the consent form)

---

Client signature

Date

---

Client name (printed)

---

Researcher Signature

Date

---

Witness signature

Initials \_\_\_\_\_

## Appendix B

### Section A

#### Interview Schedule

#### Demographic Data Questionnaire

Code number

or

This section asks questions about yourself, please put the most appropriate answer in the box provided

1. How old are you?

18-24 years

25-35 years

36-45 years

45 and above

2. What is your sex?

Female

Male

3. What is your level of education?

Primary

Secondary

Tertiary

4. What is your income per month

Below\$ 50

\$50 – 200

\$200 - 400

\$400 - 600

\$600 - 800

\$800 and above

Your marital status

Single

Married

Widowed

Divorced



5. Where do you stay?

- High density area
- Low density area
- Rural
- Farming
- Mining
- Other patients

6. Whom do you stay with?

- Alone
- Relatives
- Friends
- Other patients
- Well wishers

## Appendix C

### Section B: Occurrence of aggression questionnaire.

1. Did you feel very angry at all in the past year?

Yes

No

a) If your answer is yes, how often did this happen?

Once

Twice

More than three times

Other, give number of times.

Do you remember what happened before the incident?

- I was provoked
- I felt hungry
- I had not taken my medication
- I had taken alcohol
- Lack of understanding by others

3 How did you express yourself afterwards?

- Shouting
- Breaking things
- Fighting with others
- Scolding others
- None of the above

Section C: Knowledge on self-care questionnaire

1. Do you think you need someone to remind you to take your medication?

- Yes
- No

2. Do you think taking alcohol is good for your health?

Yes

No

3. Is exercising good for the health of people living with mental illness?

a) Running

Yes

No.

b) Jumping

Yes

No

c) Walking

Yes

No

4. Do you think seeing a doctor regularly is important?

Yes

No

5. What do you think you should do if you experience problems on your present medication?

Stop taking the drugs

Go and see a doctor

Continue taking medication

I do not know

Other, specify .....

6. From this list what do you think may be caused by the treatment you are taking?

Drowsiness

Salivation

Tremors of the hands.

Body stiffness

Increased energy

7 (a) Do you sometimes drink alcohol?

Yes

No

## GWARO REKUBVUMA KUPINDA MUTSVANGURUDZO

### MUSORO WETSVANGURUDZO:

Hukama huripo pakati peruzivo rwekuzvichengetedza utano nekuitika kwehasha dzakanyanyisa muvanhu vanorarama nechirwere chepfungwa vanoonekwa pachipatara chepfungwa chepa Parirenyatwa paAnnex.

ZITA ROMOMUBVUNZI: FUNGAI MANGWAIRA

Runhare: 0773 530 679

### ZVINANGWA:

Tsvangurudzo iyi ndeyokuongorora ukama huripo pakati peruzivo rwekuzvichengetedza nekuitika kwehasha dzakanyanya muvanhu vanorarama nechirwere chepfungwa vanoonekwa pachipatara chevanhu vanorwara nepfungwa cheParirenyatwa.

### KODZERO YAKO:

Musati mafunga kuti munoda kupinda kana kusapinda mutsvanguridzo iyi zivai kuti zvichakubatsirai kuti mugone kubatsirana nevanhu vanorarama nechirwere chepfungwa kuti vagone kurarama zvakanaka. Hatitarisiri kuti pangave nezvibingaidzo zvinogona sezvopasina mushonga kana mamwe maitro anokanganisa hutano hwenyu pakuitwa kwetsvakuridzo iyi. Zvose izvi ndizvo zvinonzi kupa mvumo yekupinda mutsvangurudzo.

#### DONZVO RETSVANGURUDZO:

Donzvo retsvangurudzo iyi nderekuongorora hukama huripo pakati peruzivo rwekuzvichengetedza nekuitika kwehasha dzakanyanyisa muvanhu vanorarama nechirwere chepfungwa pachipatara cheParirenyatwa Hospital Annex.

#### ZVINHU ZVICHAITWA PAKUWANA UMBOWO MUTSVANGURUDZO IYI:

Muchabvunzwa mibvudzo yamuchadayira yakanyorwa kare. Mibvunzo iyi inobata maringe neupenyu hwenyu, kuitika kwehasha huye ruzivo rwenyu pakuzvichengetedza utano hwenyu zvakanaka maererano nechirwere chepfungwa. Mubvunzo iyi ichatora zvinhambwe zvinoita makumi maviri kana matatu pakubvunzwa.

#### NJODZI KANA ZVIPINGAIDZO ZVINOOGONA KUWANIKWA MUKUPINDA MUTSVANGURUDZO IYI:

Hapana mushonga uhashandiswa saka hatitarisiri kuti pangavepo nezvipingaidzo kana kusagadzikana kungawanikwa pakupinda mutsvangurudzo.

#### ZVINOTARISIRWA KUZOBATSIRA PAKUPINDA MUTSVANGURUDZO:

Kupinda mutsvangurudzo iyi zvichazobatsira ramangwana renyu uyewo nerevamwe vanorarama nechirwere chepfungwa pakupiwa zivo navana Mukoti yekuti vagone kuzvibatsira kuti kuitika kwehasha kuve kushoma muvanhu vakadai.

#### KUBUDA MUTSVANGURUDZO:

Munogona kubuda mutsvangurudzo iyi isati yapera zvisingazokutadzisii kurapwa kana kuwana rumwe rubatsiro kana zvimwe zvaanokodzera kuwana pachipatara chino. Kupinda mutsvangurudzo iyi hazvimanikidzwi.

#### KUCHENGETEDZWA KWEUMBOO HUNENGE HWAPIWA:

Humboo hunenge hwapiwa hapana zita rinonyorwa zvinoreva kuti hazvigoni kuzivikanwa kuti hwakapiwa naani. Umboo uhu huchagara hwakachengetedzwa panzvimbo isingasvikwi nevamwe kunze kwomubvunzi bedzi.

#### ZVIGOZHERO / MIBVUNZO:

Munotenderwa kubvunza chero zvamunoda pamusoro petsvangurudzo iyi, Kana mungazove nemubvunzo pamberi apo makasununguka kubvunzazve chero nguva.

#### CHITENDERANO:

Ndaverenga nazvetsvangurudzo iyi/ndaiverengerwa ndanzwisisa zvinhu zvinogona kukanganisika uye zvinogona kuzobatsira hama yangu kana vamwe netsvangurudzo iyi. Ndinoziva kuti kupinda mutsvangurudzo iyi hazvimanikidzwi. Ndinozivazve kuti kana ndisingachadi kuenderera mberi nayo ndakasununguka kubuda zvisingazokanganisi marapirwo angu nhasi kana mazuva anotevera. Ndichapiwa rumwe rugwaro rwebvumo iyi (Isai vara rekutanga rezita renyu nere vabereki pabepa poga poga).

---

Runyoro Rwemubvunzwi

Zuva

---



Zita Rizere Romubvunzwi

Zuva

---

Runyoro rwmubvunzwi

Zuva

---

Mufakazi

Zuva

Mavara ekutanga emazita ako .....

### APPENDIX C

### SHONA QUESTIONNAIRE

Nhamba

Chikamu chekutanga : Zveupenyu hwenyu, munokumbirwa kut mupindure nepamunogona  
napo.

1. Mune makore mangani?

Gumi nemasere – makmi maviri nemana

Makumi maviri nemashanu – makmi matatu nemashanu

Makumi matatu nematanhatu – nemakumi mana nemashanu

Kupfuura makmi mana nemashanu

2. Muri munhu rudzii?

Munhukadzi

Munhurume

3. Makaroorwa here kana kuroora?

Handina kuroora/kuroorwa

Ndakaroorwa/Ndakaroora

Takapesana

Ndakafirwa

Tirikugarisana tisina kuroorana

4. Makaenda kuchikoro kusvika papi?

Handina kudzidza

Ndakaita puraimari

Secondari

Dzidzo/danho repamusoro

5. Munowana marii pamwedzi?

Pasi peUS\$50.00

US\$50 – US\$200

US\$201 – US\$400

US\$401 – US\$600

Kupfuura US\$600

6. Munogara nzvimbo yakadini?

Kurukisheni

Kumasabhabha

Mumaruwa

Mumapurazi

Mumigodhi

7. Munogara nani?

Ndega

Nehama

Shamwari

Chikamu chechipiri. Zviri maererano nemaitikiro ehasha, pindurai semagonero enyu.

1. (a) Mumwedzi gumi nemiviri yakapfuura makambotsamwa zvakapfuridza zvekuti

munozviyeuka here?

Hongu

Kwete

Kana mhinduro iri hongu

b. Kushatirwa uku kwakaitika rungani?

Kamwechete

Kaviri

Kudarika rutatu

Zvimwewo .....rungani

2. Chii chakanga chaitika chakakonzeresa kutsamwa kwakadai?

Kudenhwa

Nzara

Kusamwa mushonga

Kunwa doro

Kusawirirana pakutaura

3. Ndeipi nzira yamakataridza kushatirwa kwenyu pane idzi nzira?

Kutaura nezwi pamusoro soro

Kuputsa zvinhu

Kutuka vamwe

Kurwisana nevamwe

Hapana nzira yandakashandisa

Chikamu chetatu : Ruzivo rwenyu pamusoro pekuzvichengetedza kuti musarware.

1. Munofanira kurangaridzwa kutora mushonga wenyu here?

Hongu

Kwete

2. Kunwa doro kunezvakanokanganisa here kumunhu anorwara nepfungwa?

Hongu

Kwete

3. Kutasanudza muviri kwakanakira utano hwemunhu anorwara nepfungwa here sekuti

a. Kumhanya

Hongu

Kwete

b. Kusvetuka

Hongu

Kwete

c. Kufamba famba

Hongu

Kwete

4. Kuuya kuchipatara kuzotariswa nemachiremba kwakakosha here?

Hongu

Kwete

5. Kurikuti mawana dambudziko rakonzerwa nemishonga yamuri kutora, mungaite sei pazvinhu zvinotevera.

Ndinorega kunwa mushonga

Ndinonoona Chiremba

Ndinoramba ndichinwa

6. Ndezvipi zvinhu pane izvi zvinotevera zvamunofunga kuti zvinokonzereswa nemushonga wamuri kutora?

Hope dzakawanda

Kusiririka rutwe

Nhetemwa

Dambudziko pakufamba

Simba rakawandisa

7. Munonwa doro here?

Hongu

Kwete

