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**THE EFFECT OF REMISSION IN SCHIZOPHRENIA ON
EMPLOYEE ABSENTEEISM AND PRESENTEEISM IN THE
WORKPLACE**

ELIZABETH WAMBUI NGARACHU

MBA/92968/2016



**A dissertation submitted in partial fulfillment of the requirements for the Degree of
Master of Business Administration at Strathmore Business School**

Strathmore Business School

Strathmore University

Nairobi, Kenya

MAY, 2018

DECLARATION AND APPROVAL

I declare that this work has not been previously submitted and approved for the award of a degree by this or any other University. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made in the thesis itself.

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Elizabeth Wambui Ngarachu

May 2018

Approval

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ABSTRACT

This study aimed to advance insight on remission in schizophrenia in the workplace by examining absenteeism and presenteeism of employees. It measured the absenteeism and presenteeism of employees in businesses in Nairobi with remission in schizophrenia attending Mathari National Teaching & Referral Hospital follow up clinics with the aim of recommending a strong talent management strategy. The study adapted a quantitative method of research. All the questionnaires were filled. The Health and Work Performance Questionnaire developed by the World Health Organization was used to measure absenteeism and presenteeism. Remission in schizophrenia was measured by the Positive and Negative Syndrome Scale. Organizational support was measured by the Survey of Perceived Organizational Support. The Multidimensional Scale of Perceived Social Support was used to measure social support. A Pearson's correlation was done to measure the strength and direction of the relationship between remission in schizophrenia and absenteeism and presenteeism. A multiple regression analysis was carried out to predict the value of absenteeism based on the value of remission in schizophrenia, social and organizational support. The correlation analysis revealed that remission in schizophrenia has a weak negative correlation with absenteeism, that is, when remission in schizophrenia was increased, absenteeism decreased. However, there was no statistically significant relationship between remission in schizophrenia and presenteeism. The multiple regression analysis revealed that when remission in schizophrenia was changed by one unit, absenteeism decreased by three and a half working hours. However, there are other factors that explain absenteeism in employees with remission in schizophrenia. Based on the findings of this study, the main recommendation was employers should investigate what these factors are in order to retain talent in their organizations.

Keywords: schizophrenia, remission in schizophrenia, absenteeism, presenteeism

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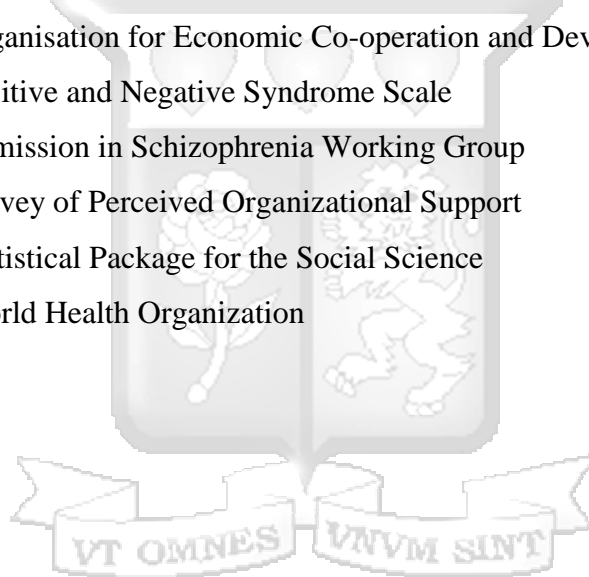


DEFINITION OF TERMS

Health	State of complete physical, mental and social well-being and not merely the absence of disease or infirmity.
Mental health	State of personal life satisfaction, confidence, self-determination, capability and self-actualization.
Schizophrenia	A chronic psychiatric disorder that affects how a person thinks, feels and behaves. It is characterized by active-phase symptoms which include delusions, hallucinations, disorganized speech, abnormal motor behaviour and negative symptoms.
Remission in schizophrenia	A resolution of symptoms and signs of schizophrenia of more than six months.
Absenteeism	The failure to turn up for scheduled work.
Presenteeism	When employees are physically present at their workplace but are mentally absent because their cognitive energy at work is compromised.

ABBREVIATIONS AND ACRONYMS

APA	American Psychiatric Association
BLS	Bureau of Labor Statistics
CSLS	Centre for the Study of Living Standards
DSM-V	Diagnostic and Statistical Manual of Mental Disorders-5 th Edition
GDP	Gross Domestic Product
HPQ	Health and Work Performance Questionnaire
MNTRH	Mathari National Teaching & Referral Hospital
MSPSS	Multidimensional Scale of Perceived Social Support
OECD	Organisation for Economic Co-operation and Development
PANSS	Positive and Negative Syndrome Scale
RSWG	Remission in Schizophrenia Working Group
SPOS	Survey of Perceived Organizational Support
SPSS	Statistical Package for the Social Science
WHO	World Health Organization



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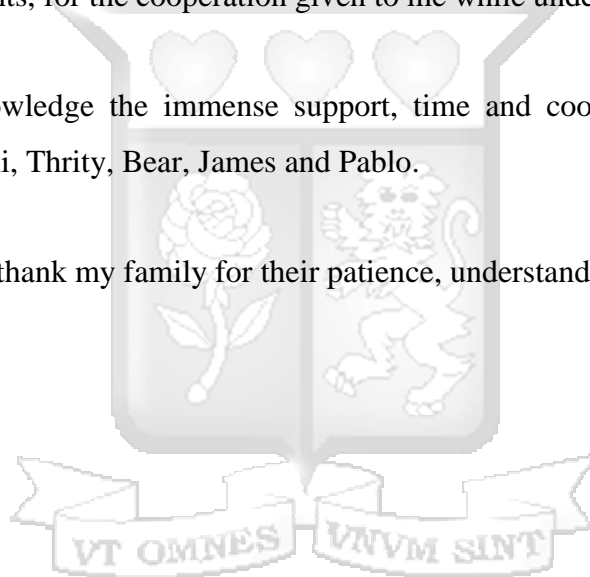
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CHAPTER ONE: INTRODUCTION

1.1 Introduction

This chapter looks at the background of the study, statement of the problem that the study sought to address, the research objectives and questions, scope and significance of the study.

A healthy workplace is an organization's continuous efforts to integrate employee health and organizational effectiveness (Grawitch, Gottschalk, & Munz, 2006). There are many critical challenges impacting a business' viability and profitability. There is a critical need to develop employees who are effective and to manage human resource issues such as presenteeism and absenteeism (Langton, Robbins, & Judge, 2014). A significant loss of talent and economic burden is created across all age brackets by rising long-term health conditions, costing employers heavily as they take up the costs of absenteeism and chronic disability claims and provide medical benefits for employees (Loeppke, et al., 2009). Mental health greatly impacts presenteeism and absenteeism compared to majority of long-term diseases (Holden, et al., 2011). Mental illnesses cause business losses such as presenteeism, high staff resignation rate and absenteeism (National Alliance on Mental Illness, 2015).

Traditionally, medical safety and efficacy were the two health-focused criteria used to assess the medical industry. Recently, economic impact as a third criterion has emerged due to increased costs of health care and employer's provision to employee health plans (Johns, 2010). Accordingly, the costs absorbed by an employer in employee health include the direct health plan costs and indirect costs due to employee presenteeism and absenteeism (Collins, et al., 2005). Microeconomically, the study of health impact on business productivity homes in on returns to employers and employees. Employers through higher profits on accumulation of health capital and employees through higher wages (CSLS, 2002). The link between reduced productivity due to absenteeism and presenteeism and poor health is a compelling issue affecting costs absorbed by employers in employee health strategies (Loeppke,

et al., 2009). Mental disorders in the workplace result in economic consequences and employers would do well to provide an environment of mental health prevention and promotion (Lim, Sanderson, & Gavin, 2000).

Absenteeism is the failure to turn up for scheduled work (Robbins & Judge, 2013). Presenteeism is when employees are physically present at their workplace but are mentally absent because their cognitive energy at work is compromised (Gilbreath & Karimi, 2012). Pharmacy and medical costs account for 30% of the full cost of poor health to employers while presenteeism and absenteeism take up 70%. This is illustrated in figure 1.1. Loeppke et al (2009) found that on average, for every US\$ 1 employers spend on personal health costs, they absorb US\$ 2-4 of absenteeism and presenteeism (Loeppke, et al., 2009). Productivity loss due to personality and drug-induced disorders costs US\$ 1.4 billion each year (Lim, Sanderson, & Gavin, 2000).



Figure 1.1: The full cost of poor health to employers (Loeppke, et al., 2009)

1.2 Background to the study

Four hundred and fifty million people are affected by a mental disorder contributing to the global burden of disease at 14%. Mental disorders account for 5.7% of Kenya's burden of disease (World Health Organization, 2003). According to Jenkins et al (2012), mental disorders contribute significantly to the Kenyan public health burden at 10.8% (Jenkins, et al., 2012). Kenya had an estimated population of 43 million people in 2014 (Kenya National Bureau of Statistics, 2015). Mental health has far-reaching effects on the productivity, welfare and standard of living of an individual. WHO estimated productivity loss and mental illness expenditures annually cost several billion dollars to government economies (World Health Organization, 2003).

In 1998/99, 10% of the Kenyan Ministry of Health's expenditure was attributed to 5,678 hospital admissions due to mental disorders (Kirigia & Gambo, 2003). If the mental disorder burden is not addressed, it is projected by 2020 to contribute 15% of the overall disease burden (Ministry of Health, 2016). Work is curative for employees with mental illness and they should be reassured and supported to return to the workplace thus decreasing the burden of costs of care. Return to work becomes unlikely for employees the longer they are absent from work. Prevention of chronic absenteeism and early return to work is financially advantageous to employers and the government (Waddell & Burton, 2006).

Schizophrenia is a long-term and severe mental disorder that affects how a person thinks, feels and behaves. It is characterized by delusions, hallucinations, disorganized speech, abnormal motor behaviour and negative symptoms (APA, 2013). Schizophrenia is ranked in the top ten illnesses contributory to the worldwide disease burden (Vos, et al., 2015). It occurs in approximately 1% of people worldwide (McGrath, Saha, Chant, & Welham, 2008). Remission in schizophrenia is defined as a resolution of symptoms and signs of schizophrenia of more than six months. An individual with remission in schizophrenia is medically fit, experiences life satisfaction and has better occupational results (Yeomans, et al., 2010).

A business without productivity objectives does not have direction. In addition, a business without productivity measurement does not have control (Drucker, 1954). Strategy is the long-term direction of a business or organization (Johnson, Whittington, Scholes, Angwin, & Regner, 2014). A success indicator by which businesses are evaluated is productivity measurement (Fried, Lovell, & Schmidt, 2008). Productivity is the efficiency at which inputs are converted into output. Labour productivity is the output per labour hour (BLS, 2015). Labour productivity is greatly influenced by the input (OECD, 2008). Labour hours captures the input better than number of employees (OECD, 2015). Therefore, this study focused on absenteeism and presenteeism as the measure of productivity. The Productivity Centre of Kenya is a ministry division authorized to bolster productivity practices in order to strengthen the country's competitiveness (Ministry of East African Community(EAC), Labour and Social Protection, 2016). According to the laws of Kenya, the Regulation of Wages Order states that maximum working hours are 52 with one rest day weekly. The Employment Act states the minimum age of employment is 16, however, a child is defined as an individual under 18 years (Kenya Law, 2016).

A study of the economic burden of schizophrenia included direct, indirect and intangible costs resulting in the largest cost taken up by productivity losses. Direct medical costs are expenditure for medical care, pharmaceutical drugs, diagnostic tests and medical supplies. Indirect costs are productivity losses associated with absenteeism, presenteeism, unemployment, permanent disability, early retirement, incarceration and premature death. Intangible costs are attributed to the decline in standard of living to patients, families and friends due to pain or suffering (Chong, et al., 2016). Businesses contribute to Gross Domestic Product (GDP) and are facing a significant loss in talent and economic burden from absorbing costs of chronic health conditions in absenteeism and presenteeism (Loeppeke, et al., 2009). According to the KHHEUS survey, the Kenyan government spending on healthcare is approximately 6.8% of GDP which is low compared to other countries in the region (KHHEUS, 2013). Despite the fact that Kenya vowed to allocate 15% of its national budget to health sector in the 2001 Abuja Declaration (African Union, 2001). In addition, Kenya does not have a separate budget for mental health (Kenya National Health

Accounts, 2013). However, Kenya launched its first Mental Health Policy (2015-2030) which works toward removing the negative associations from mental illness making it of great importance due to the effect on an individual's well-being and the nation's competitiveness (Ministry of Health, 2016). The GDP of Kenya increased by 5.7% in 2015 compared to a 5.4% growth in 2014. Kenya's GDP expanded by 5.8% in 2016 (Kenya National Bureau of Statistics, 2017).

Mental health is driven by socioeconomic status (Waddell & Burton, 2006). An important occupational outcome for individuals with schizophrenia is their employment status (Nuechterlein, et al., 2011). Competitive employment rates for persons with schizophrenia are low ranging from 10-20% in European countries (Marwaha & Johnson, 2004). Most people with schizophrenia have a desire to work and can successfully participate in the labour market in a variety of competitive jobs (Mueser, Salyers, & Mueser, 2001). Waddell & Burton (2006) found strong evidence that work is on the whole very good for mental health, as it is for physical health. Unemployment is associated with poorer mental health, physical health and well-being. The workforce with remission in schizophrenia should not be lost but given work, which is therapeutic leading to reduction in use of disability claims and decreased overall costs of care. The benefits of work outweigh the risks of work and are greater than the disadvantages of chronic unemployment or absenteeism (Waddell & Burton, 2006). Absenteeism costs industries majorly and effective management makes good business logic. Early management of absenteeism is critical to prevent chronic absence. A productive, focused workforce is a competitive advantage for organizations facing competition globally (Gilbreath & Karimi, 2012).

1.3 Problem definition

Every organization is affected by mental illness in the workforce. In Kenya, one in four will experience mental illness and will seek outpatient services while four in 10 patients will be admitted for the same (Ministry of Health, 2016). A study in Kilifi county found outpatient services were sought due to schizophrenia at 47.1% of all mental illnesses (Bitta, Kariuki, Chengo, & Newton, 2017). In Kangemi, schizophrenia had a prevalence of 45.5% in adolescents and young adults (Mamah,

et al., 2012). The most frequent diagnosis in Kenya's main psychiatric hospital in Nairobi, Mathari National Teaching & Referral Hospital, was schizophrenia accounting for 51% of all mental illnesses in Nairobi (Ndetei, et al., 2008). An important occupational outcome for individuals with schizophrenia is their employment status (Nuechterlein, et al., 2011). However, persons with schizophrenia are susceptible to stigma, prejudice and discrimination in the workplace (Boardman, Grove, Perkins, & Shepherd, 2003). Unemployment of people with schizophrenia in United States in 2002 cost organizations US\$ 21.6 billion (Wu, et al., 2005).

A worldwide study was conducted analyzing psychiatric professionals' opinions concerning work possibilities among individuals with schizophrenia. It was found that 50.35% of individuals with remission in schizophrenia can work compared to 15.85% that are employed (Zaprutko, et al., 2015). This is a loss of talent in individuals who have achieved remission in schizophrenia. In contrast, absenteeism and presenteeism take up the largest cost of the economic burden of schizophrenia. This presented a gap that needed to be investigated, do employees with remission in schizophrenia have increased levels of absenteeism and presenteeism? The cost of neglecting schizophrenia in the workplace is too high to be ignored any longer because businesses in Nairobi are facing the risk of losing a key component of their competitive advantage – talent. With this in mind, there was need to investigate employees with remission in schizophrenia on workplace presenteeism and absenteeism in businesses in Nairobi.

1.4 Purpose of the study

The purpose of this study was to understand the relationship between absenteeism and presenteeism in employees with remission in schizophrenia in businesses in Nairobi after which, and based on the findings, relevant strategies for managing absenteeism and presenteeism were to be recommended.

1.5 Main research objective

To understand schizophrenia and its effect on absenteeism and presenteeism of employees attending Mathari National Teaching & Referral Hospital follow up clinics.

1.5.1 Specific objectives

- i. To explore remission in schizophrenia among employees
- ii. To assess the relationship between remission in schizophrenia and absenteeism
- iii. To assess the relationship between remission in schizophrenia and presenteeism

1.6 Research questions

- i. How does remission in schizophrenia present among employees?
- ii. What is the relationship between remission in schizophrenia and absenteeism?
- iii. What is the relationship between remission in schizophrenia and presenteeism?

1.7 Scope of the study

This research focused on investigating employees with remission in schizophrenia. The location of the study was Mathari National Teaching & Referral Hospital's follow up clinics. This study focused on productivity and talent losses related to absenteeism and presenteeism. This research also focused on the employee perspective. This study was limited to persons with remission in schizophrenia. The respondents were in full time employment in businesses in Nairobi that attend Mathari National Teaching & Referral Hospital in Nairobi for follow up of their condition.

1.8 Significance of the study

The findings of this study gave a detailed understanding of the relationship between remission in schizophrenia and absenteeism and presenteeism of employees in businesses in Nairobi. Business organizations will have a better understanding of the impact of their management strategies in their business models and success. Employers shall critically evaluate and implement strategies for managing absenteeism and presenteeism in employees with remission in schizophrenia. They shall also examine how they allocate resources towards managing employees with remission in schizophrenia in order to have a focused and productive workforce. Kenyan employees with remission in schizophrenia will benefit from making better-informed choices on supportive work environments regarding organizational support. Besides adding to the body of knowledge on schizophrenia, absenteeism and presenteeism, the study will also act as a foundation for further academic research on impact of leadership styles, factors causing presenteeism and absenteeism in employees with remission in schizophrenia and overall societal costs of schizophrenia to be performed in this area of study.



CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This section reviews existing literature, publications and information on theories and empirical studies in mental health, schizophrenia, absenteeism and presenteeism. A review of various literature is undertaken in line with research objectives.

2.2 Theoretical foundation of the study

According to the social control theory, strong bonds with work, friends, religion and family motivate employees to participate in desirable behavior and refrain from deviant pursuits like absenteeism and presenteeism. These bonds involve guiding behavior toward appropriate objectives. If the social links are lacking, individuals take part in deviant activities. The main cause of deviant pursuits is poor guidance of behavior, including lack of supervision and vigilance in the workplace, disunity in families and friends who engage in disruptive behavior. The crucial features of social control theory involve bonding and providing guidance of acceptable goals and pursuits (Hirschi, 1969).

Steers and Rhodes (1978) later developed the process model which posits that the ability to attend work by employees is predominantly determined by the capability to attend duties and their motivation. Employees need to have the drive and enthusiasm to attend work which is described as the attendance relationship (Steers & Rhodes, 1978). Job satisfaction affects an individual's motivation to attend work (George & Jones, 2002).

Frederick Herzberg, a psychologist theorized motivation as workplace motivating factors that cause job satisfaction and dissatisfaction caused by hygiene factors. Herzberg called it the two-factor theory of motivation. Herzberg, Mausner & Snyderman (1959) discovered the motivating factors associated with the content of the work itself and considered to satisfy employees' mental needs such as the work

being carried out, recognition, achievement, responsibility and advancement. The hygiene factors are associated with the work environment and include relationship with the manager, company policy, compensation, supervision and working conditions. Job dissatisfaction occurs when hygiene factors are absent (Herzberg, Mausner, & Snyderman, 1959). A study by Hamlin & Nemo (1962) compared motivator and hygiene scores of respondents with remission in schizophrenia and those without remission. It was found that respondents with remission in schizophrenia obtained higher motivator scores than those without remission. These scores reflected a tendency to seek satisfaction in achievement, responsibility, creativity and enjoyment of productive effort thus reduced absenteeism and presenteeism. The respondents with remission in schizophrenia obtained lower hygiene scores reflecting a tendency to seek satisfaction in surrounding conditions such as relationship with boss, relationship with peers and supervision over which the respondent has limited control (Hamlin & Nemo, 1962).

This was followed by the organizational support theory which theorized that employees assess the perks of increased work effort and satisfy their mental needs by creating an awareness or feeling in relation to the degree to which the organization appreciates their work effort and looks after their satisfaction. Such perceived support from the organization would boost employees' commitment to organization, achieve objectives and expect reward due to enhanced performance. The effects of perceived support from the organization are employees go above and beyond formal job duties and boosts in in-role performance and reduction in deviant behaviours like presenteeism and absenteeism (Eisenberger, Huntington, Hutchison, & Sowa, 1986).

The process model, social control and organizational support theories will guide this study. The capability, strong bonds with work, family and friends and organization support determine an individual's choice between reporting to work and not going to work.

2.3 Schizophrenia and remission

The constitution of the World Health Organization (WHO) describes health as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity” (World Health Organization, 2016). Mental health is illustrated as a state of personal life satisfaction, confidence, self-determination, capability and self-actualization (World Health Organization, 2003). The Diagnostic and Statistical Manual of Mental Disorders-5th edition (DSM-V) is the generally approved classification of mental illnesses by academicians. It classifies and defines schizophrenia as a severe and chronic psychiatric illness characterized by disturbances in thought, perception and behavior. It is characterized by active-phase symptoms which include delusions, hallucinations, disorganized speech, abnormal motor behaviour and negative symptoms. Schizophrenia is characterized by a duration of at least six months and includes at least one month of two or three active-phase symptoms (APA, 2013).

The Positive and Negative Syndrome Scale (PANSS) measures schizophrenia. The PANSS is a scale which contains 30 symptoms of schizophrenia and measures their absence or severity. Each symptom is evaluated on a scale ranging from one (absent) to seven (extreme) (Kay, Fiszbein, & Opler, 1987). The American Psychiatric Association categorized schizophrenia into three stages. The first stage, the acute phase, is marked by extremely severe psychotic symptoms. It is followed by the stabilization phase where symptoms subside and reduce in severity. The third stage, the stable or remission phase, is characterized by decreased symptom severity and corresponding symptom stability (APA, 2006). Remission in schizophrenia is defined as a resolution of symptoms and signs of schizophrenia of more than six months. An individual with remission in schizophrenia is medically fit, experiences life satisfaction and has better occupational results (Yeomans, et al., 2010). When schizophrenic patients are in remission, cognition usually improves (Silverstein, Harrow, & Bryson, 1994).

The PANSS guided further research by Andreasen et al (2005) who formed a Remission in Schizophrenia Working Group (RSWG) and identified appropriate criteria consisting of a time and a symptomatic remission criterion for remission in

schizophrenia. They defined remission as a level of core schizophrenia symptoms that does not affect an individual’s behavior and is below the DSM-V requirements for schizophrenia diagnosis. Eight specific symptoms out of the 30-item PANSS were identified for review as criteria for remission in schizophrenia. The specific symptoms were selected to represent disorganisation, negative and positive symptoms, evaluated by factor analyses then related to the five characteristics for schizophrenia according to DSM-V. The RSWG identified eight PANSS items shown in table 2.1. For an individual to meet the requirements for remission status, he/she must score either absent, minimal or mild on each of the eight symptoms. In addition, a duration of six months as a minimum time threshold during which the aforesaid symptom severity must be maintained to achieve remission (Andreasen, et al., 2005).

Table 2.1: The eight PANSS symptoms and signs used to rate remission

Symptoms and signs	Domain
Delusions	Positive symptom
Unusual thought content	Positive symptom
Hallucinatory behaviour	Positive symptom
Conceptual disorganisation	Disorganisation
Mannerisms/posturing	Disorganisation
Blunted affect	Negative symptom
Social withdrawal	Negative symptom
Lack of spontaneity	Negative symptom

Source: (Andreasen, et al., 2005)

Schizophrenia occurs in approximately 1% of the global population (McGrath, Saha, Chant, & Welham, 2008). It has a higher annual incidence in males (Hambrecht, Maurer, & Häfner, 1992). The median male: female ratio is 1.4:1 (Abel, Drake, & Goldstein, 2010). The incidence is higher in urban settings compared to rural settings (McGrath, Saha, Chant, & Welham, 2008). Modal age of onset is between 18-25 years for men and 25-35 years for women, with a second peak occurring around menopause (APA, 2013). Women who develop schizophrenia have better

functionality prior to illness onset than men demonstrated by their marriage rates, social relationships, IQ, work and school functioning (Canuso & Pandina, 2007). Females have higher rates of symptomatic remission in schizophrenia than males (Carpiniello, Pinna, Tusconi, Zaccheddu, & Fatteri, 2012). Post hospitalization, 89.9% of patients maintain remission within first year but there's less frequency of remitted symptoms over a longer duration (Bobes, et al., 2009). A study in Kilifi county found outpatient services were sought due to schizophrenia at 47.1% of all mental illnesses (Bitta, Kariuki, Chengo, & Newton, 2017). In Kangemi, schizophrenia has a prevalence of 45.5% in adolescents and young adults (Mamah, et al., 2012). The most frequent diagnosis in Kenya's main psychiatric hospital in Nairobi, Mathari National Teaching & Referral Hospital, was schizophrenia accounting for 51% of all mental illnesses in Nairobi (Ndeti, et al., 2008). An important occupational outcome for individuals with schizophrenia is their employment status (Nuechterlein, et al., 2011).

2.4 Absenteeism

The definition of absenteeism is the failure to turn up for scheduled work (Robbins & Judge, 2013). Absenteeism may be voluntary or involuntary. Involuntary absence occurs due to factors beyond the control of an employee like chronic disease. Voluntary absence occurs due to factors within the control of an employee (Ramsey, Punnett, & Greenidge, 2008). The reasons include personal, organizational and management issues such as policies on absenteeism and employee supervision (Podsakoff, Ahearne, & MacKenzie, 1997) (García-Prado & Chawla, 2006). In addition, unfavourable working conditions and increased workload with inadequate salaries leads to increased absenteeism (Isah, Omorogbe, Orji, & Oyovwe, 2008). Eisenberger et al (1986) found that employees' felt support from organization led to increase in extra-role and in-role performance and decrease in absenteeism and presenteeism (Eisenberger, Huntington, Hutchison, & Sowa, 1986). Perceived support from the organization reflects the degree to which the organization appreciates their employees' work effort and looks after their satisfaction. Such an employee has increased commitment to the organization (Langton, Robbins, & Judge, 2014). Decreased rates of absenteeism occur with satisfied and committed

employees. Managing absenteeism requires activities that generate positive job mindsets (Robbins & Judge, 2013). Return to work for persons in remission stage of disease minimizes the harmful mental and social effects of absenteeism (Waddell & Burton, 2006).

Significant amounts of money and time is lost by organizations annually due to absenteeism. It costs US employers an average of 8.7% of pay sheet. 10% of Sweden's workforce is on sick leave at any given time. An organization finds it challenging to accomplish objectives and operate smoothly due to absenteeism. It results in interrupted workflow and delay in making important decisions. Absenteeism can be considerably more than a disruption in assembly-line productions. The quality of output is drastically reduced or the facility can shut down. An organization's efficiency and effectiveness is directly affected by levels of absenteeism beyond the normal range (Robbins & Judge, 2013).

2.5 Presenteeism

Presenteeism is an occurrence that has developed gradually over time. Traditionally, presenteeism was accepted as the opposite of absenteeism to connote excellent attendance (Johns, 2010). Subsequently, it captured the interest of organization and occupational medicine scholars who described it as showing up to work while sick (Aronsson, Gustafsson, & Dallner, 2000). Academicians in occupational health and management in Europe were curious to find out the frequency due to the work environment. On the contrary, medical scholars and consultants in America concentrated on consequences to productivity due to various illnesses (Johns, 2010). The turn of the 21st century saw more contemporary definitions emerge. Presenteeism was described as working increased hours, thus putting in 'face time' while not fit (Worrall, Cooper, & Campbell, 2000). It was also defined as workers being at the workplace but not performing due to various ailments (Hemp, 2004). A behavioural scholar, Whitehouse (2005) stated presenteeism as reduced workplace productivity due to illness or other incidents that divert an employee's absolute productivity (Whitehouse, 2005). Presenteeism has been defined as workers who are physically present at their workplace but are mentally absent because their cognitive

energy at work is compromised (Gilbreath & Karimi, 2012). Presenteeism affects job engagement which is the investment of an employee's physical, mental and emotional energies into job performance (Robbins & Judge, 2013). Table 2.2 summarizes eleven definitions of presenteeism from literature. They oscillate between being good, one's illness, decreased productivity, poor work environment and mentally absent.

Table 2.2: Definitions of presenteeism

- a) Attending work, as opposed to being absent (Smith, 1970)
- b) Exhibiting excellent attendance (Canfield & Soash, 1955)
- c) People turning up to work, who are so distressed by their jobs or some aspect of organizational climate that they contribute little, if anything, to their work (Cooper & Williams, 1994)
- d) Working elevated hours, thus putting in 'face time', even when unfit (Simpson, 1998); (Worrall, Cooper, & Campbell, 2000)
- e) Being reluctant to work part time rather than full time (Sheridan, 2004)
- f) Being unhealthy but exhibiting no sickness absenteeism (Kivimäki, et al., 2005)
- g) Going to work despite feeling unhealthy (Aronsson, Gustafsson, & Dallner, 2000); (Dew, Keefe, & Small, 2005)
- h) Going to work despite feeling unhealthy or experiencing other events that might normally compel absence (e.g., child care problems) (Evans, 2004); (Johansson & Lundberg, 2004)
- i) Reduced productivity at work due to health problems (Turpin, et al., 2004)
- j) Reduced productivity at work due to health problems or other events that distract one from full productivity (e.g., office politics) (Hummer, Sherman, & Quinn, 2002); (Whitehouse, 2005)
- k) Employees are physically present at their workplace but are mentally absent, that is, their cognitive energy at work is compromised (Gilbreath & Karimi, 2012)

Source: (Johns, 2010)

Most definitions of presenteeism are as a result of illness limiting its full understanding (Bokhari, Ahmad, & Hyder, 2017). There are various factors that cause presenteeism similar to absenteeism. One of them is supervisor behavior which performs a crucial role on workers' health and productivity (Gilbreath & Karimi, 2012). Other factors are inadequate pay, anxiety and stress which affect employee health and productivity (Prater & Smith, 2011). Office politics causes presenteeism (Whitehouse, 2005). Organizational policies regarding pay, sickness pay, employee permanency, job design and presenteeism culture results in presenteeism (Johns, 2010). This supports Cooper & Williams (1994) who described presenteeism as employees showing up to work, so stressed by their work or some aspect of work environment that they contribute little to their job (Cooper & Williams, 1994). Presenteeism results in employees who make many errors, are less creative, have decreased productivity and provide lower quality service (Gilbreath & Karimi, 2012). Supervisory support has positive effects on workers' well-being and intrinsic job satisfaction (Karimi, 2008). Furthermore, the degree to which employees perceive managerial/supervisory support in the workplace is associated with the experience of work-family conflict and workers' level of well-being (Karimi, Karimi, & Nouri, 2011). The behaviour of supervisors was found to have more significant impact on employees' psychological well-being than co-workers, friends and family members (Gilbreath & Benson, 2004). In contrast, Bhokar, Ahmad & Hyder (2017) found no relationship between leadership style and presenteeism but their limitations being respondents were unaware of the leadership style in their organization (Bokhari, Ahmad, & Hyder, 2017).

Sick employees in the workplace put their coworkers at health risk, who react by indulging in presenteeism or absenteeism thus reducing productivity and profit for the business (Prater & Smith, 2011). Billions of dollars are lost due to presenteeism (Hemp, 2004). Presenteeism causes more cumulative loss in productivity than absenteeism adding more interest in the subject (Collins, et al., 2005). Furthermore, presenteeism accounts for 81% of productivity losses (National Alliance on Mental Illness, 2015). With organizational structures becoming leaner, few coworkers are available to compensate the productivity loss (Gilbreath & Karimi, 2012). Hemp

(2004) recommends effective management of presenteeism leads to competitive advantage for businesses (Hemp, 2004). Organizational support theory posits that employees with increased levels of perceived support from the organization are more committed, satisfied and have increased extra-role and in-role performance (Rhoades & Eisenberger, 2002). Presenteeism is measured in terms of productivity (Johns, 2010). It is calculated as the costs related to decreased job output, mistakes at work and not accomplishing business objectives (Schultz & Edington, 2007). Measuring presenteeism is challenging because of types of work like knowledge-based occupations, which often produce no easily quantifiable output. Instruments have been developed by researchers to overcome these obstacles. These instruments target the estimation of perceived impairment, comparative performance of others with one's norm and assessment of nonproductive time while at work (Mattke, Balakrishnan, Bergamo, & Newberry, 2007). A tool that uses the three approaches is the HPQ developed by the WHO (Kessler, et al., 2003).

2.6 Analyzing the relationship between employees with remission in schizophrenia and workplace presenteeism and absenteeism

Schizophrenia generates financial and social burdens for patients, their families and the wider society. A study of the economic burden of schizophrenia included direct, indirect and intangible costs resulting in the largest cost taken up by productivity losses. Direct medical costs are expenditure for medical care, pharmaceutical drugs, diagnostic tests and medical supplies. Indirect costs are productivity losses associated with absenteeism, presenteeism, unemployment, permanent disability, early retirement, incarceration and premature death. Intangible costs are attributed to the decline in standard of living to patients, families and friends due to pain or suffering (Chong, et al., 2016). Absenteeism and presenteeism are the result of a sole decision point. The choice between reporting to work and not going to work is the common thread in the constructs. The risk of mental health illnesses in Australia associated with presenteeism is greater than absenteeism (Holden, et al., 2011).

In 2002, schizophrenia cost the United States approximately US\$62.7 billion. Costs due to presenteeism and absenteeism in organizations were US\$1.7 billion. Unemployment of people with schizophrenia cost organizations US\$21.6 billion (Wu, et al., 2005). In 2004/05, schizophrenia cost England approximately £3.4 billion due to absenteeism and presenteeism (Mangalore & Knapp, 2007). The average annual cost per patient with schizophrenia in Sweden in 2008 was € 55,100 of which costs due to absenteeism and presenteeism account for 60% or € 33,060 (Ekman, Granstrom, Omerov, Jacob, & Landen, 2013). In Thailand, schizophrenia cost approximately US\$ 2,600 per person or US\$ 925 million for the entire population annually. Absenteeism and presenteeism contributed 61% of the total economic burden of schizophrenia (Phanthunane, Whiteford, Vos, & Bertram, 2012). In Switzerland, the average cost of schizophrenia in 2012 was € 39,408 per patient. Absenteeism and presenteeism accounted for 64% or € 25,108 per patient (Pletscher, Mattli, von Wyl, Reich, & Wieser, 2015). Chong et al (2016) carried out a global analysis of the economic burden of schizophrenia in 24 countries covering Europe, America, Asia Pacific and Africa. They found absenteeism and presenteeism accounted for 50-85% of US\$ 102 billion. The economic burden ranged from 0.02-1.65% of the GDP (Chong, et al., 2016).

However, patients in steady state of remission in schizophrenia in Sweden had a negative relationship with absenteeism and presenteeism in 2007 compared to active-phase symptomatic patients (Hjortsberg, Helldin, Hjaerthag, & Loethgren, 2011). A study to investigate whether schizophrenia remission is important for functional outcome found a strong positive relationship with activity of daily life and social functioning in society (Helldin, Kane, Karilampi, Norlander, & Archer, 2007). Social functioning means functioning in the real world, such as independent living, interpersonal relationships and work (Leifker, Patterson, Heaton, & Harvey, 2011). Remission patients functioned more effectively in social contexts with superior education, having occupations, possessing more established social networks and living under family-like conditions. They exhibited lower need for support in their daily activities, less health care resources, less presenteeism and absenteeism (Helldin, Kane, Karilampi, Norlander, & Archer, 2007). Another study on patients with first-episode schizophrenia found that symptomatic remission has a strong positive relationship with functionality and quality of life and strong negative

relationship with absenteeism and presenteeism (Bodén, Sundström, Lindström, & Lindström, 2009). In Turkey, it was found that the total scores of PANSS and Clinical Global Impression-Severity Scale were significantly lower in schizophrenic patients with remission than in those not in remission. In addition, the quality of life and functionality scores were significantly higher in the remission group than in the non-remission group. These scores demonstrated a positive relationship between remission in schizophrenia and quality of life and functionality and negative relationship with absenteeism and presenteeism (Kokaçya, et al., 2016). An investigation carried out in South Africa found that remitted patients had lower presenteeism and absenteeism than their nonremitted counterparts (Emsley, Chiliza, Asmal, & Lehloenya, 2011).

In contrast, a study done in Butajira, Ethiopia on symptomatic and functional outcomes of schizophrenia found that there was lowered functionality than in developed countries (Kebede, et al., 2005). A study performed to investigate whether symptomatic remission relates to better outcomes in schizophrenia found that remitted patients presented a non-significant trend for presenteeism. Symptomatic remission may not be such a good indicator for cognitive functioning leading to increased absenteeism and presenteeism. However, the remitted patients showed significantly better insight, subjective life satisfaction and social functioning (Brissos, Dias, Balanzá-Martinez, Carita, & Figueira, 2011). In addition, Robinson et al (2004) reported that after five years of treatment, nearly 47.2 % of patients with first episode of schizophrenia achieved remission, but only half of them had achieved adequate work and interpersonal relationships (Robinson, Woerner, McMeniman, Mendelowitz, & Bilder, 2004).

2.7 Summary and research gap

From the literature review, discussion is on remission in schizophrenia, presenteeism and absenteeism. Several authors indicate that remission in schizophrenia has a strong negative relationship with absenteeism and presenteeism. Other authors state that lack of organizational and social support result in low engagement at work and absenteeism. A few authors state that symptomatic remission in schizophrenia may

not be such a good indicator for cognitive functioning at work. Few studies have been done in Africa and combined with the contradicting conclusions, present a knowledge gap that does not investigate workplace absenteeism and presenteeism in Nairobi. There was need therefore to conduct this research.

2.8 Conceptual framework

A conceptual framework is an illustration by a researcher based on various concepts in literature and their relationships. This framework describes the relationship between remission in schizophrenia, absenteeism, presenteeism, social and organizational support. Figure 2.1 guided the study.

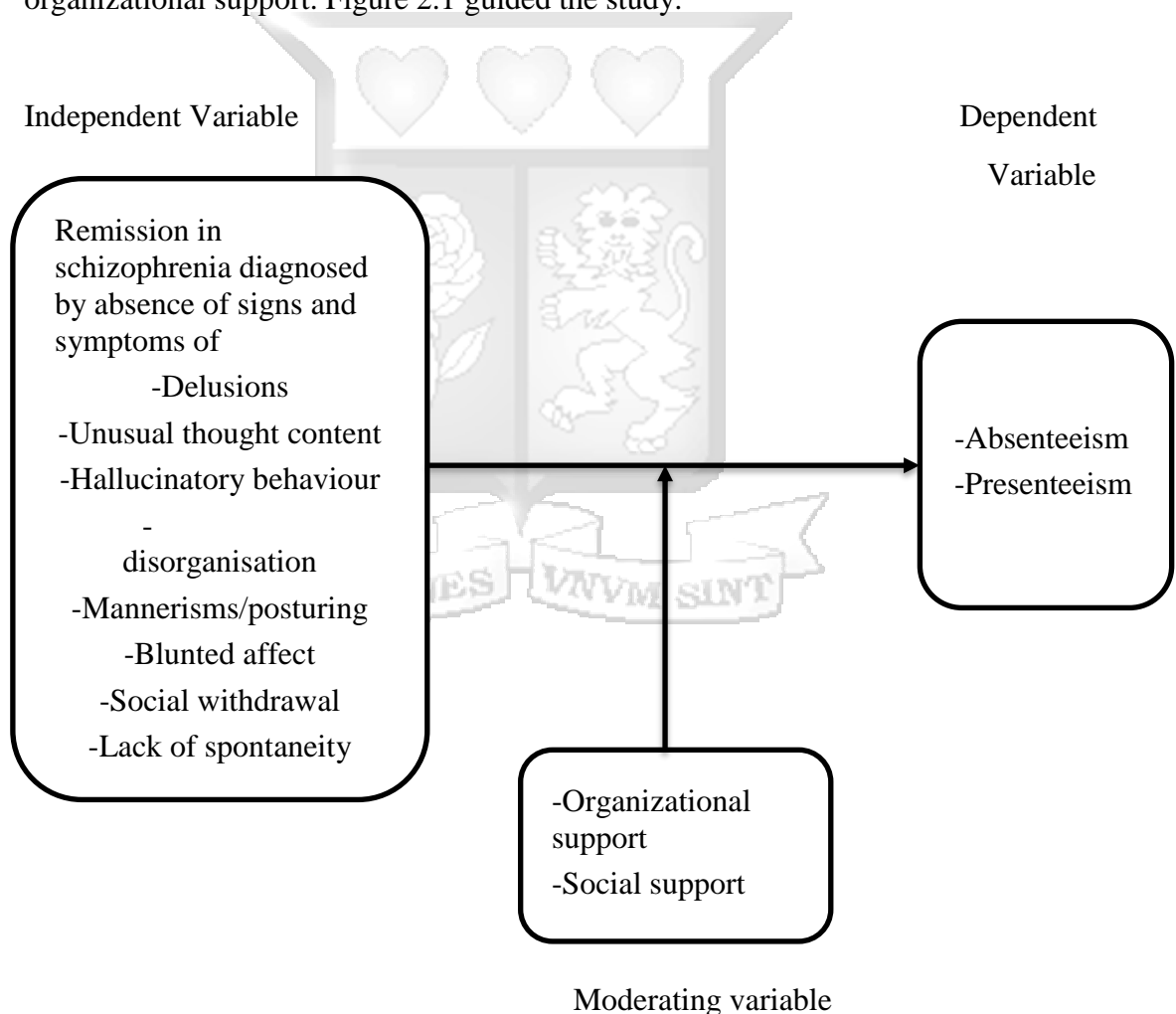
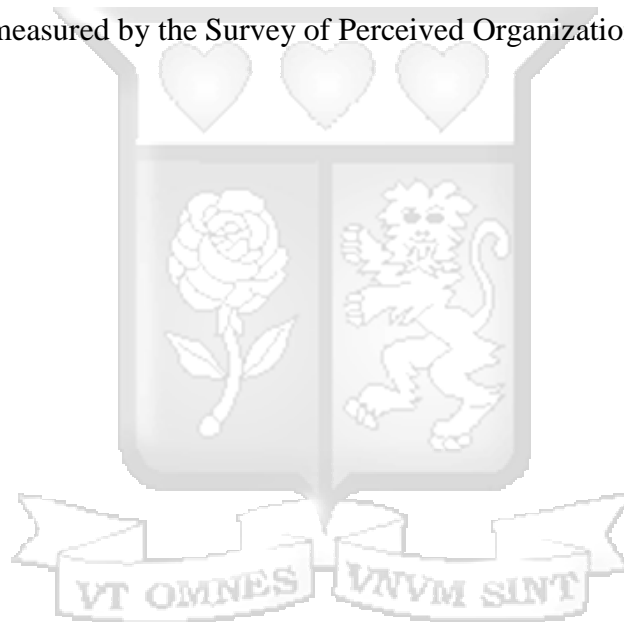


Figure 2.1: Conceptual framework for the study (Source: Researcher, 2018)

The independent variable was remission in schizophrenia which was operationalized and measured through questions administered in the Positive and Negative Syndrome Scale (PANSS). Remission in schizophrenia was measured by evaluating the following eight symptoms and signs: delusions, unusual thought content, hallucinatory behavior, conceptual disorganization, mannerisms/posturing, blunted affect, social withdrawal and lack of spontaneity. The dependent variable was productivity, under which, presenteeism and absenteeism were measured and operationalized through the questions administered in an adaption of the WHO Health and Work Performance Questionnaire (HPQ). The moderating variables were organizational support and social support. Social support was measured by the Multidimensional Scale of Perceived Social Support (MSPSS). Organizational support was measured by the Survey of Perceived Organizational Support (SPOS).



CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines and discusses the research methodology that was employed to meet the research objectives of investigating workplace absenteeism and presenteeism in employees with remission in schizophrenia in businesses in Nairobi.

3.2 Research design

This study used a quantitative method of research to determine the extent of a relationship between the independent variable, remission in schizophrenia, and the dependent variables; presenteeism and absenteeism. This was done through a survey. The justification for this was that the study sought to provide a measure for or quantify attitudes, opinions and emotions. Primary data was collected from structured questionnaires from employees with remission in schizophrenia. This research was a cross sectional study. My unit of analysis was employees with remission in schizophrenia attending Mathari National Teaching and Referral Hospital's follow up clinics.

3.3 Population

The target population is the entire set of units for which data will be used to make inferences and sample may be selected (Saunders, Lewis, & Thornhill, 2016). Secondary data was used because of poor record keeping at MNTRH. There was no data on number of patients with schizophrenia attending MNTRH. The target population of the study, denoted by N, was the approximated 170 patients with schizophrenia in MNTRH (Ndeti, Khasakhala, Meneghini, & Aillon, 2013). They formed the target population.

3.4 Sample

Purposive sampling method was used because Mathari National Teaching & Referral Hospital is Kenya's premier psychiatric hospital (Ndeti, et al., 2008). A sample size of 108 respondents at a confidence level of 95% was used (Saunders, Lewis, & Thornhill, 2016). The inclusion criteria were (1) diagnosis of schizophrenia according to DSM-V; (2) diagnosis of remission in schizophrenia according to modified PANSS; (3) respondent is a clinic attendant in MNTRH; (4) respondent is aged between 18-60 years because the Employment Act states the minimum age of employment is 16, however, a child is defined as an individual under 18 years (Kenya Law, 2016); (5) respondent is on medication and (6) respondent is an employee in Nairobi. The exclusion criteria were (1) respondent with non-remission in schizophrenia; (2) respondent not within the ages 18-60 years; (3) respondent not on medication and (4) respondent that is unemployed. The respondent

3.5 Data collection methods

Data to be collected was adapted from four questionnaires whose details are discussed below. In addition, a cover letter from MNTRH was included with the questionnaire to briefly elucidate the purpose of the study and the legitimacy of the researcher. The cover letter is attached in **Appendix D**. A questionnaire contains set of questions for collecting statistically beneficial data (De Vaus, 2014). Data collection occurred over a three-month period, January-March 2018, and it involved searching for respondents who met the inclusion criteria and administering the questionnaires. The respondents were accessed every Tuesday at MNTRH follow up clinics. Respondents with schizophrenia were identified then examined by the researcher and those found to fit the inclusion criteria were eligible for the study. Participation was voluntary. Section B of the questionnaire was filled by the researcher and the other sections filled by the respondents. A pre-test (pilot) study was conducted using the questionnaires to enhance reliability.

3.5.1 Remission in schizophrenia questionnaire

Remission in schizophrenia was measured by the 8-item remission scale of the modified Positive and Negative Syndrome Scale (PANSS) by the Remission in Schizophrenia Working Group (RSWG). It consists of a time and a symptomatic remission criterion for remission in schizophrenia. The eight items are symptoms which include delusions, unusual thought content, hallucinatory behavior, conceptual disorganization, mannerisms/posturing, blunted affect, social withdrawal and lack of spontaneity. For an individual to meet the requirements for remission status, he/she must score either absent, minimal or mild on each of the eight symptoms. In addition, a duration of six months as a minimum time threshold during which the aforesaid symptom severity must be maintained to achieve remission (Andreasen, et al., 2005).

The modified PANSS of RSWG criteria has been used in several studies (Van Os, et al., 2006) (Lambert, Karow, Leucht, Schimmelmann, & Naber, 2010) (AlAqeel & Margolese, 2012) (Pinna, Bosia, Cavallaro, Carpiniello, & Study, 2014) and there was substantial evidence that it was an adequately reliable and valid measure of remission in schizophrenia with a Cronbach's alpha of 0.8. The questionnaire is attached in **Appendix B, Section B**. It was filled by the researcher who translated the meaning of terminologies in the questionnaire to the respondents.

3.5.2 Absenteeism and presenteeism questionnaire

Absenteeism and presenteeism was measured by the absenteeism and presenteeism questions of the World Health Organization's Health and Work Performance Questionnaire (HPQ) (Kessler, et al., 2003). The absenteeism and presenteeism questions of WHO HPQ are attached in **Appendix B, Section C**. The HPQ is a self-report instrument that is designed for estimating the workplace costs of health problems in terms of presenteeism, absenteeism and work-related accidents and injuries. The researcher used the absenteeism and presenteeism questions from the full HPQ. The reason for using an already existing adaption of HPQ is the fact that the questionnaire has already operationalized the variables for the study. The

reliability of the HPQ adapted version in a Brazil study was Cronbach's alpha coefficient of 0.86 for absenteeism and presenteeism (Campos, Marziale, & Santos, 2013). The reliability of the HPQ presenteeism scale is 0.89 (Kessler, et al., 2004).

The HPQ has been used in a Persian study with a Cronbach value higher than 0.73 (Pournik, et al., 2012). The alpha values are more than the benchmark value of 0.7 which according to Nunnally (1978), an alpha value of 0.7 or higher was considered an acceptable reliability for a study (Nunnally, 1978). This shows that the reliability test values variables are excellent. Questions on absenteeism showed high correlation of Pearson's r of more than 0.75 (Pournik, et al., 2012). Absenteeism was measured by asking respondents how much time they missed from work because of sickness. The recall periods ranged from one week to 28 days. This is because such self-reported data have been found to be reliable and valid when recall periods are short. The HPQ measured presenteeism through a self-report assessment of on-the-job work performance. It conceptualized a measure of actual performance in relation to possible performance (Kessler, et al., 2003).

3.5.3 Social support questionnaire

Social support was measured by the Multidimensional Scale of Perceived Social Support (MSPSS). This questionnaire examined social support over three dimensions: family, friends and significant others. The questionnaire includes 12 items. Each item was evaluated on a 5-point Likert scale where 1 was Strongly Disagree; 2 was Mildly Disagree; 3 was Neutral; 4 was Mildly Agree and 5 was Strongly Agree. High scores on the questionnaire indicate high-level social support. It has been used in several studies (Canty-Mitchell & Zimet, 2000) (Ng, Siddiq, Aida, Zainal, & Koh, 2010) (Roe, Mashiach-Eizenberg, & Lysaker, 2011). The scale has good internal reliability with Cronbach's alpha of 0.88 (Zimet, Dahlem, Zimet, & Farley, 1988). The questionnaire is attached in **Appendix B, Section D**.

3.5.4 Organizational support questionnaire

Organizational support was measured using eight items adopted from the Perceived Organizational Support questionnaire. Each item was evaluated on a 5-point Likert scale where 1 was Strongly Disagree; 2 was Mildly Disagree; 3 was Neutral; 4 was Mildly Agree and 5 was Strongly Agree. It measured the extent to which respondents believe their organization values their contribution, considers their goals and interests, makes help available to solve personal problems and cares about the employees' well-being. It has a good internal reliability with Cronbach's alpha of 0.97 (Eisenberger, Huntington, Hutchison, & Sowa, 1986). The questionnaire has been used in several studies. A Greek study with Cronbach's alpha of 0.80 (Zampetakis, Beldekos, & Moustakis, 2009), Ugandan study with a Cronbach value of 0.865 (Tumwesigye, 2010), and Turkish study with Cronbach's alpha 0.88 (Colakoglu, Culha, & Atay, 2010). The questionnaire is attached in **Appendix B, Section E**.

3.6 Data analysis

The data gathered in this study was quantitative data leading to use of descriptive and inferential statistics by Statistical Package for the Social Science (SPSS), Version 20. Descriptive statistics allowed simpler interpretation of data using means and standard deviations. Inferential statistics enabled inferences to be made on the population from the sample of the study. In particular, in objective one, graphs and tables were used to present the data. In objective two, the Pearson correlation matrix was used to determine the relationship between remission in schizophrenia and absenteeism. In objective three, the Pearson correlation matrix was used to determine the relationship between remission in schizophrenia and presenteeism. A multiple regression analysis was carried out to predict the value of absenteeism based on the value of remission in schizophrenia and moderating variables, social and organizational support.

3.7 Research quality

This study conformed to research quality standards by ensuring reliability, validity and objectivity.

3.7.1 Internal validity

Internal validity is the extent to which a causal conclusion based on a study is warranted, which is determined by the degree to which a study minimizes systematic error. To enhance this, piloting of the questionnaire was done which revealed ambiguous questions which were corrected.

3.7.2 External validity

External validity refers to the extent to which results of a study apply to situations beyond the study itself. A representative sample and real life settings were used to enhance this.

3.8 Pilot study

The pre-test (pilot study) was conducted from a small survey sample that was a representation of the target population in Chiromo Lane Medical Centre. The pilot study respondents were not eligible for the main study. However, the feedback received guided the researcher in eliminating errors and biases and structuring the flow of final questionnaire.

3.9 Ethical considerations

This study was submitted to USIU Institutional Review Board for ethics approval. The ethical approval was granted and the letter is attached in **Appendix E**. The participants signed an Informed Consent Document (**Appendix A**) before being enrolled into the study. To ensure privacy of respondents, confidentiality and anonymity were used. In the study, respondents were protected against linking up

data with individual subjects thus ensuring confidentiality. In addition, names were not recorded. Respondents were assigned coded identities so as to remain unidentifiable thus ensuring anonymity. Participants were informed their participation was voluntary and that even if they took part at first then later changed their mind, they could decline without explanation. The participants were competent to give consent and were in remission phase of schizophrenia and in full time employment. A debrief was verbally said to each participant promptly at the conclusion of their part in the study. The debrief form is attached in **Appendix F**.



CHAPTER FOUR: PRESENTATION OF RESEARCH FINDINGS

4.1 Introduction

This chapter presents the data collected from the respondents, employees with remission in schizophrenia who attended Mathari National Teaching & Referral Hospital follow up clinics. The findings are organized according to the research objectives which are: first, to explore remission in schizophrenia among employees; second, to assess the relationship between remission in schizophrenia and absenteeism and third, to assess the relationship between remission in schizophrenia and presenteeism. Therefore, this chapter evaluates, displays and explains the data.

4.2 Descriptive statistics

4.2.1 Response rate

This study aimed for a sample size of 108 respondents. A total of 108 questionnaires were filled giving a response rate of 100%. This response rate was very good for analysis (Mugenda & Mugenda, 2003). A factor that contributed to the achievement of 100% response rate was the three-month duration of data collection.

4.2.2 Demographics and occupational characteristics of respondents

The questionnaire required that each respondent indicate various demographic factors. The respondents were asked to indicate their age and the results are highlighted in table 4.1.

Table 4.1: Age of the respondents

Age	Frequency	Percent (%)
18-25 years	8	7.4
26-30 years	22	20.4
31-35 years	27	25.0
36-40 years	16	14.8
41-50 years	23	21.3
51-60 years	12	11.1
Total	108	100

Table 4.1 shows that participants ranged in age from 18 to 60 years. Out of 108 responses received most (25%) were individuals between the ages of 31-35 years. This was followed by 21.3% from individuals between 41-50 years. Then 20.4% within 26-30 years and 14.8% within 36-40 years. This was followed by 11.1% from individuals between 51-60 years and 7.4% within 18-25 years. From the results, majority of the respondents is between the ages of 31-35 years which reflects both male and females have followed the modal age of onset of schizophrenia. This is consistent with the literature on how remission in schizophrenia presents among employees.

Also, the respondents were asked to indicate their gender and the results are shown in table 4.2.

Table 4.2: Gender of the respondents

Gender	Frequency	Percent (%)
Male	55	50.9
Female	53	49.1
Total	108	100

Table 4.2 shows that out of the 108 responses received, 50.9% were male and 49.1% were females. This shows that schizophrenia affects more males than females. This is consistent with the trend towards higher incidence of schizophrenia in males.

Table 4.3 highlights the age group by gender of respondents.

Table 4.3: Age group by gender

Age	Male	Female	Total
18-25 years	50%	50%	7%
26-30 years	59%	41%	20%
31-35 years	59%	41%	25%
36-40 years	31%	69%	15%
41-50 years	48%	52%	21%
51-60 years	50%	50%	11%

Table 4.3 shows that out of 108 responses received, most (25%) were from individuals between the ages of 31-35 years, out of which 59% were males. This is consistent with the higher incidence of schizophrenia in males.

The participants were also asked to choose their level of education and results are shown in table 4.4.

Table 4.4: Education by gender

Education level	Male		Female		Total	
	Frequency	Percent (%)	Frequency	Percent (%)	Frequency	Percent (%)
Primary	14	36%	25	64%	39	36%
Secondary	22	61%	14	39%	36	33%
Tertiary	11	48%	12	52%	23	21%
University	8	80%	2	20%	10	9%

Table 4.4 shows that out of 108 responses received, majority (36.1%) of the respondents had attained primary level of education, of which females were the majority at 64%. This was followed by 33.3% of individuals who had attained secondary level of education and 21.3% with tertiary education. The least (9.3%) of the participants had attained university education, of which males were the majority at 80%. From the results, majority have attained primary and secondary education. This implies that the modal age of onset of schizophrenia hampered attainment of tertiary and university education.

Lastly, the participants were asked to choose their employment category and results are shown in table 4.5.

Table 4.5: Employment category

Employment category	Frequency	Percent (%)
Executive, administrator or senior manager (e.g., CEO, sales VP, plant manager)	2	1.9
Professional (e.g., engineer, accountant, systems analyst)	5	4.6
Technical support (e.g., lab technician, legal assistant, computer programmer)	4	3.7
Sales (e.g., sales representative, stockbroker, retail sales)	15	13.9
Clerical and administrative support (e.g., secretary, billing clerk, clerical officer)	13	12.0
Service occupation (e.g., security officer, janitor, food service worker, bus conductor, house help)	35	32.4
Precision production and crafts worker (e.g., mechanic, carpenter, machinist)	15	13.9
Labourer (e.g., truck driver, construction worker, tea picker)	19	17.6
Total	108	100

Table 4.5 shows that out of 108 responses received, most (32.4%) of the respondents were in service occupation, followed by 17.6% who were labourers. This is consistent with their low level of education.

4.3 To explore remission in schizophrenia among employees

From the literature review, the current thought on remission in schizophrenia has a symptomatic and a time criterion. The modified Positive and Negative Syndrome scale (PANSS) developed by Andreasen et al (2005) was used to identify remission

in schizophrenia among employees in businesses in Nairobi attending Mathari National Teaching and Referral Hospital’s follow up clinics. The PANSS had already operationalized the variables for the study into symptoms and duration. It allowed the researcher to examine and measure remission in schizophrenia among the respondents.

Figure 4.1 highlights the results as regards symptom-based criterion of remission in schizophrenia among the respondents. The symptom-based criterion corresponds to eight symptoms in the PANSS, all of which have to be scored with a symptom severity of absent, minimal or mild.

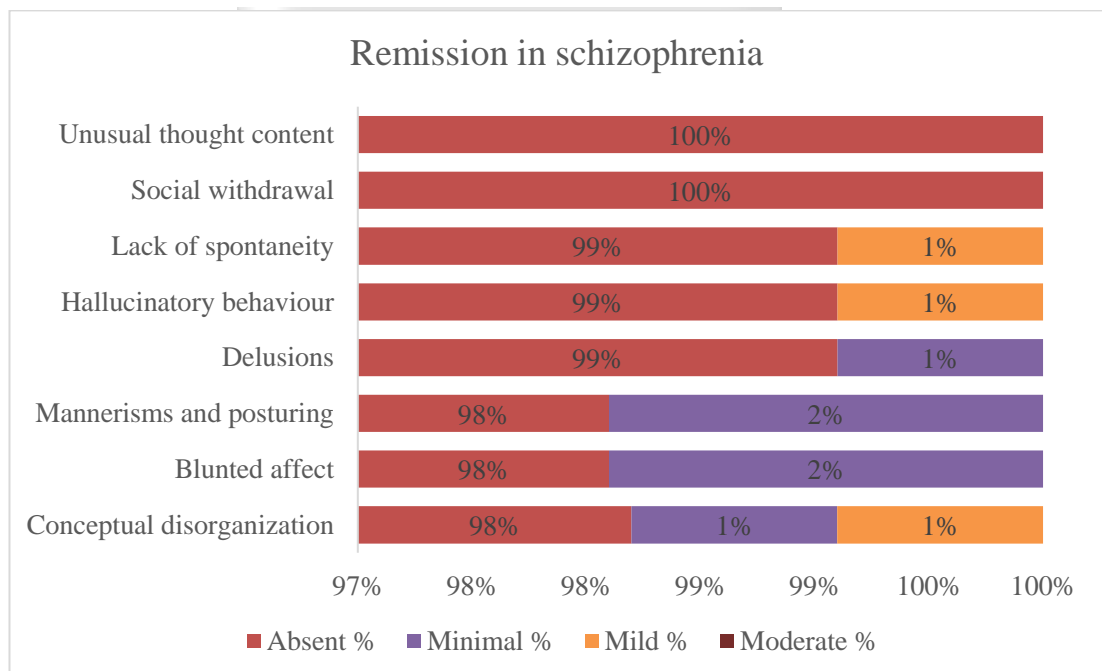


Figure 4.1: Remission in schizophrenia, symptom criterion

Figure 4.1 shows that 108 respondents had scored absent, minimal or mild on each of the eight symptoms. This means 100% of the respondents achieved the symptom criterion for remission in schizophrenia. This also means the respondents achieved a level of core schizophrenia symptoms that does not affect an individual’s behavior and is below that required for a diagnosis of schizophrenia according to DSM-V (Andreasen, et al., 2005).

Table 4.6 highlights the time criterion of remission in schizophrenia among the respondents. A time criterion, which requires that an individual achieves the symptom-based criterion for a minimum of six months to qualify for remission status.

Table 4.6: Remission in schizophrenia, time criterion

Duration	Frequency	Percent (%)
6 months-1 year	60	55.6
2-3 years	26	24.1
4-5 years	14	13.0
6-7 years	4	3.7
8-9 years	2	1.9
10 years and above	2	1.9
Total	108	100

Table 4.6 shows that 108 respondents had achieved the symptom-based criterion within a period of six months as a minimum time threshold. Thus, 100% of the respondents qualified for remission status.

Figure 4.2 highlights the time criterion of remission in schizophrenia by gender of respondents. A time criterion, which requires that an individual achieves the symptom-based criterion for a minimum of six months to qualify for remission status.

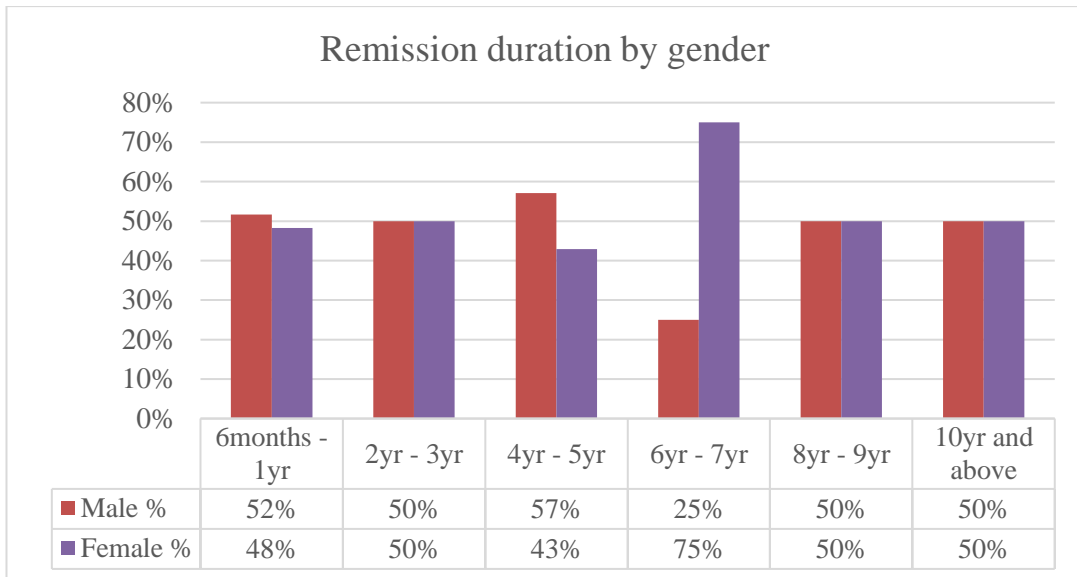


Figure 4.2: Remission in schizophrenia duration by gender

Figure 4.2 shows most (55.6%) of respondents had maintained remission for a duration of 6 months-1 year, out of which 52% were males. The least (1.9%) of the respondents maintained remission for a duration of 8 years and above, of which male and female respondents had equal frequency. This is consistent with the reduced frequency of achieving remitted symptoms over a longer duration.

The remission in schizophrenia mean rating was done against gender. For an individual to meet the requirements for remission status, he/she must score either absent, minimal or mild on each of the eight symptoms. That is, the individual must score on a scale where 1 is Mild; 2 is Minimal and 3 is Absent on each symptom. The results are shown in table 4.7.

Table 4.7: Remission in schizophrenia mean rating by gender

Remission in schizophrenia	Male	Female	Overall mean
Delusions	3	2.98	2.99
Conceptual disorganization	3	2.94	2.97
Hallucinatory behavior	3	2.96	2.98
Blunted affect	2.98	2.98	2.98
Social withdrawal	3	3	3
Lack of spontaneity	2.96	3	2.98
Mannerisms and posturing	3	2.96	2.98
Unusual thought content	3	3	3
Overall mean	2.9925	2.9775	

Mild-1, Minimal-2, Absent-3

Table 4.7 shows the remission in schizophrenia mean rating by gender. Male employees achieved a slightly higher score (2.99) of absent symptoms in remission in schizophrenia compared to the females. This is not consistent with the higher rates of symptomatic remission in females compared to males.

The remission in schizophrenia mean rating was done against age group. For an individual to meet the requirements for remission status, he/she must score either absent, minimal or mild on each of the eight symptoms. That is, the individual must score on a scale where 1 is Mild; 2 is Minimal and 3 is Absent on each symptom. The results are shown in table 4.8.

Table 4.8: Remission in schizophrenia mean rating by age group

Remission in schizophrenia	18-25 years	26-30 years	31-35 years	36-40 years	41-50 years	51-60 years	Overall mean
Delusions	3	3	2.96	3	3	3	2.99
Conceptual disorganization	3	2.91	3	2.94	3	3	2.97
Hallucinatory behavior	3	3	3	2.88	3	3	2.98
Blunted affect	3	2.91	3	3	3	3	2.98
Social withdrawal	3	3	3	3	3	3	3
Lack of spontaneity	3	3	2.93	3	3	3	2.98
Mannerisms and posturing	2.88	2.95	3	3	3	3	2.98
Unusual thought content	3	3	3	3	3	3	3
Overall mean	2.985	2.97125	2.98625	2.9775	3	3	

Mild-1, Minimal-2, Absent-3

Table 4.8 shows the remission in schizophrenia mean rating by age group. Respondents between the ages of 41-60 years scored absent in all eight symptoms for remission in schizophrenia. Respondents between the ages of 26-30 years scored lowest (2.97) between absent and minimal in their symptoms. This reflects the difficulty in achieving remission when young.

4.4 What is the relationship between remission in schizophrenia and absenteeism?

4.4.1 Absenteeism

The respondents were asked to indicate the number of hours they actually worked in the past seven days, 28 days and how long they were expected to work by their employers. The results are shown in table 4.9.

Table 4.9: Absenteeism

	Number of respondents	Minimum	Maximum	Mean	Std. Dev
Hours worked for the past 7 days	108	0	107	59.05	20.883
Hours expected to work in a typical 7-day week	108	22	107	59.23	20.312
Hours worked in the past 4 weeks (28 days)	108	84	428.00	231.9259	82.27078

Table 4.9 shows that on average, majority of respondents actually worked 59 hours in a week. This is reflected by respondents who are house helps, security officers and bus conductors who work more than 52 hours a week. The employees worked a monthly average of 232 hours compared to an expected 237 hours by their employer, which means there was absenteeism of 5 hours monthly. This is interesting because individuals with remission in schizophrenia should not practice absenteeism.

The respondents were asked to indicate the reasons they had for missing work. The results are shown in table 4.10.

Table 4.10: Reasons for absenteeism

Reason	Number of respondents	Percent (%)
Miss an entire work day because of problems with your physical or mental health	19	18
Miss an entire work day for any other reason (including vacation)	29	27
Miss part of a work day because of problems with your physical or mental health	3	3
Miss part of a work day for any other reason (including vacation)	10	9
Come in early, go home late, or work on your day off	19	18
Did not miss work	28	26

Table 4.10 shows that 61 respondents out of 108 missed an entire work day or part of a work day. Most respondents were 39 employees who indicated they missed work due to other reasons other than mental health. This is noteworthy because other factors causing absenteeism were not factored into this study.

4.4.2 To assess the relationship between remission in schizophrenia and absenteeism

This research sought to find out if there is a relationship between remission in schizophrenia and absenteeism, that is, to see if they are correlated. Absenteeism was measured by a scale adapted from the Health and Work Performance Questionnaire (HPQ) developed by the World Health Organization. Absolute absenteeism is represented in working hours. An employee who works as expected by the employer results in an upper bound. An employee who works more hours than expected by the employer results in a lower bound which is negative. Absolute absenteeism was measured by calculating 4 x C15-C17. Pearson's correlation is a measure of the strength and direction of association that exists between two variables measured on

an interval scale. Pearson's correlation is used to find if there is a significant relationship between two independent continuous variables. Remission in schizophrenia and absenteeism met these assumptions hence Pearson's correlation was used. Pearson's correlation was then used to categorize positive or negative correlation taking into account the independent variable (remission in schizophrenia) that was related with the dependent variable (absenteeism). If $p\text{-value} \leq 0.05$, the null hypothesis is rejected and the test is significant. If $p\text{-value} \geq 0.05$, you accept the null hypothesis and the test is not statistically significant. The Pearson's correlation coefficient, r , is formulated as $-1 \leq r \leq 1$. Zero connotes no linear correlation. The strength and direction of the correlation depends on how close the value is to positive or negative one. Table 4.11 shows the Pearson's correlation coefficient matrix for remission in schizophrenia and absenteeism.

Table 4.11: Pearson's correlation matrix for remission in schizophrenia and absenteeism

		Remission in schizophrenia	Absolute absenteeism
Remission in schizophrenia	Pearson correlation	1	-0.228*
	Significance		0.019
Absolute absenteeism	Pearson correlation	-0.228*	1
	Significance	0.019	

*Correlation is significant at the 0.05 level (2-tailed)

Table 4.11 shows the Pearson's correlation matrix. There exists a weak negative correlation between remission in schizophrenia and absenteeism. Firstly, the matrix shows that $p\text{-value} = 0.019$ which is < 0.05 hence the relationship is statistically significant. The direction of the relationship is negative ($r = -0.228$). This implies that when remission in schizophrenia increases, absenteeism has a tendency to decrease. The magnitude or strength of the association is approximately low ($0 < |r| < 0.3$).

4.5 What is the relationship between remission in schizophrenia and presenteeism?

4.5.1 Presenteeism

The respondents were asked to rate their actual job performance compared to possible performance. The results are shown in figure 4.3.

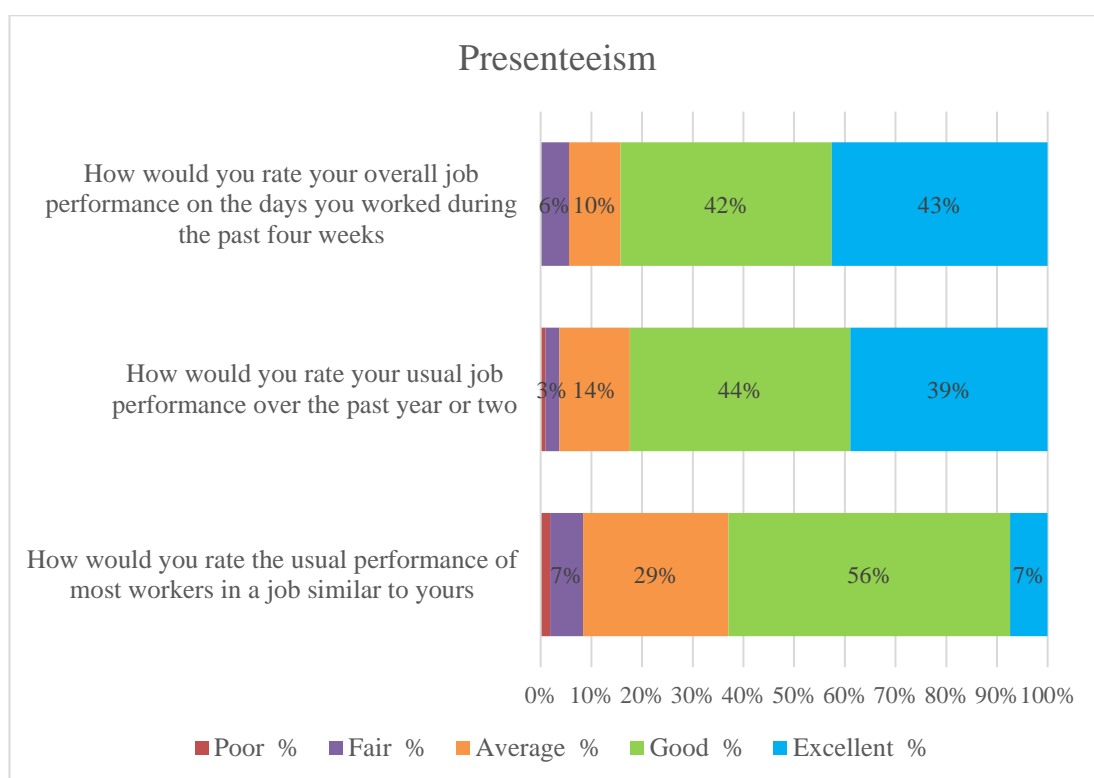


Figure 4.3: Presenteeism

Figure 4.3 shows that 43% of respondents rated themselves as having an actual excellent job performance compared to 7% possible excellent performance. This shows the respondents performed excellent at work compared to their colleagues without schizophrenia. This means employees with remission in schizophrenia had low levels of presenteeism compared to individuals without schizophrenia.

4.5.2 To assess the relationship between remission in schizophrenia and presenteeism

This research sought to find out if there is a relationship between remission in schizophrenia and presenteeism, that is, to see if they are correlated. Presenteeism was measured by a scale adapted from the Health and Work Performance Questionnaire (HPQ) developed by the World Health Organization. To measure presenteeism, individuals rate their actual job performance compared to the usual performance of their workmates. An employee who rates himself higher in performance compared to the workmate, has a higher score. Absolute presenteeism was measured by calculating $10 \times C20$. Pearson's correlation was then used to categorize positive or negative correlation by taking into account the independent variable (remission in schizophrenia) that was related with the dependent variable (presenteeism). If $p\text{-value} \leq 0.05$, the null hypothesis is rejected and the test is significant. If $p\text{-value} \geq 0.05$, you accept the null hypothesis and the test is not statistically significant. The Pearson's correlation coefficient, r , is formulated as $-1 \leq r \leq 1$. Zero connotes no linear correlation. The strength and direction of the correlation depends on how close the value is to positive or negative one. Table 4.12 shows the Pearson's correlation coefficient matrix for remission in schizophrenia and presenteeism.

Table 4.12: Pearson's correlation matrix for remission in schizophrenia and presenteeism

		Remission in schizophrenia	Absolute presenteeism
Remission in schizophrenia	Pearson correlation	1	0.128
	Significance		0.187
Absolute presenteeism	Pearson correlation	0.128	1
	Significance	0.187	

Table 4.12 shows the Pearson's correlation matrix. It shows that $p\text{-value} = 0.187$ which is > 0.05 hence not statistically significant. This means there is no relationship between remission in schizophrenia and presenteeism.

4.6. Social and organizational support

The respondents were asked to indicate their social support on a Likert scale of 1-5 where 1 was Strongly Disagree; 2 was Mildly Disagree; 3 was Neutral; 4 was Mildly Agree and 5 was Strongly Agree. The respondents indicated their social support over three dimensions: family, friends and significant others. The results are shown in table 4.13 and figure 4.4.



Table 4.13: Social support

	S.D	M.D	N	M.A	S.A	Mean	Std. Dev
I can talk about my problems with my friends	44%	7%	2%	13%	34%	2.9	1.8
I can count on my friends when things go wrong	42%	5%	2%	17%	35%	3.0	1.8
My friends really try to help me	39%	7%	3%	18%	34%	3.0	1.8
I have friends with whom I can share my joys and sorrows	37%	5%	2%	19%	37%	3.2	1.8
There is a special person with whom I can share joys and sorrows	11%	1%	1%	10%	77%	4.4	1.3
My family is willing to help me make decisions	8%	3%	3%	7%	79%	4.5	1.2
My family really tries to help me	9%	3%	2%	4%	82%	4.5	1.3
There is a special person in my life who cares about my feelings	11%	1%	1%	4%	83%	4.5	1.3
I get the emotional help & support I need from my family	7%	4%	0%	5%	84%	4.6	1.2
I can talk about my problems with my family	7%	1%	1%	9%	82%	4.6	1.1
There is a special person who is around when I am in need	8%	0%	1%	4%	87%	4.6	1.1
I have a special person who is a real source of comfort to me	6%	2%	1%	7%	85%	4.6	1.0

S.D: Strongly Disagree, M.D: Mildly Disagree, N: Neutral, M.A: Mildly Agree, S.A: Strongly Agree

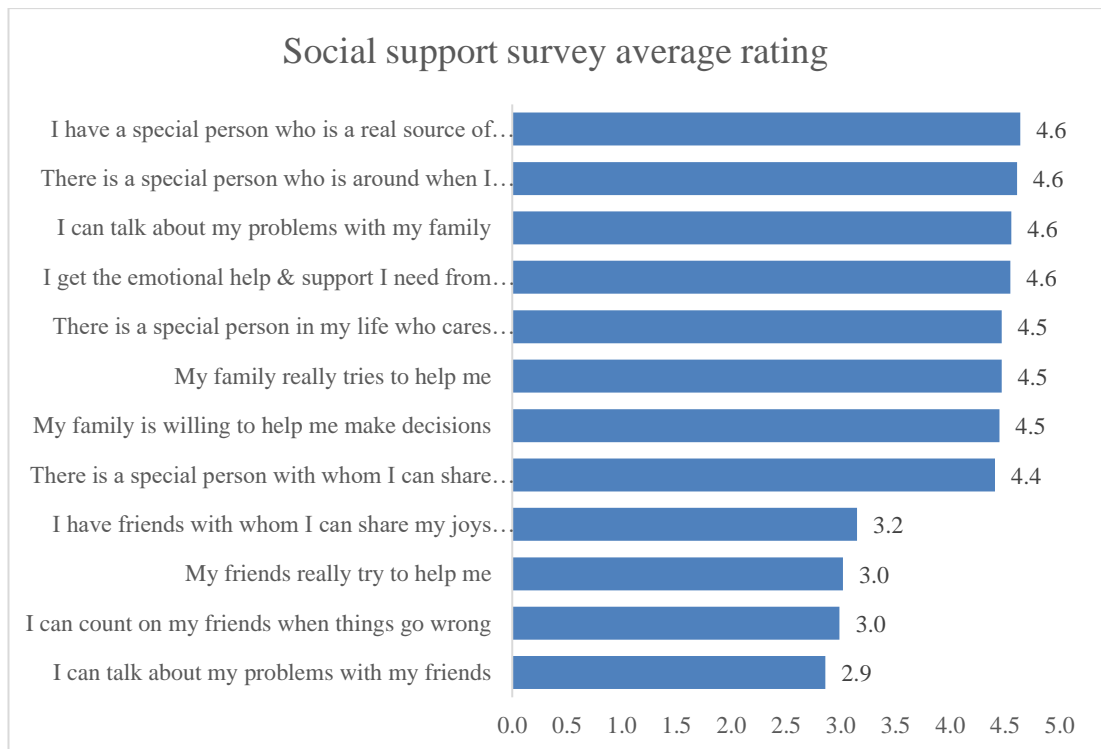


Figure 4.4: Social support

Table 4.13 and figure 4.4 shows that respondents had more support from family and significant others. This shows the respondents agreed they had high level of social support. However, the respondents disagreed having support from friends. This is noteworthy because support from family members and significant others is important for recovery.

The respondents were asked to indicate organizational support on a Likert scale of 1-5 where 1 was Strongly Disagree; 2 was Mildly Disagree; 3 was Neutral; 4 was Mildly Agree and 5 was Strongly Agree. The respondents indicated the extent to which they believed their organization values their contribution, considers their goals and interests, makes help available to solve personal problems and cares about the employees' well-being. The results are shown in table 4.14 and figure 4.5.

Table 4.14: Organizational support

	S.D	M.D	N	M.A	S.A	Mean	Std. Dev
The organization fails to appreciate any extra effort from me	58%	19%	5%	4%	15%	2.0	1.5
Even if I did the best job possible, the organization would fail to notice	63%	12%	2%	9%	14%	2.0	1.5
The organization would ignore any complaint from me	61%	11%	5%	6%	18%	2.1	1.6
The organization shows very little concern for me	54%	14%	5%	9%	19%	2.3	1.6
The organization cares about my general satisfaction at work	11%	9%	9%	17%	54%	3.9	1.4
The organization really cares about my well-being	13%	5%	11%	13%	58%	4.0	1.4
The organization takes pride in my accomplishments at work	8%	7%	5%	20%	59%	4.2	1.3
The organization values my contribution to its well-being	8%	0%	2%	19%	70%	4.4	1.1

S.D: Strongly Disagree, M.D: Mildly Disagree, N: Neutral, M.A: Mildly Agree, S.A: Strongly Agree

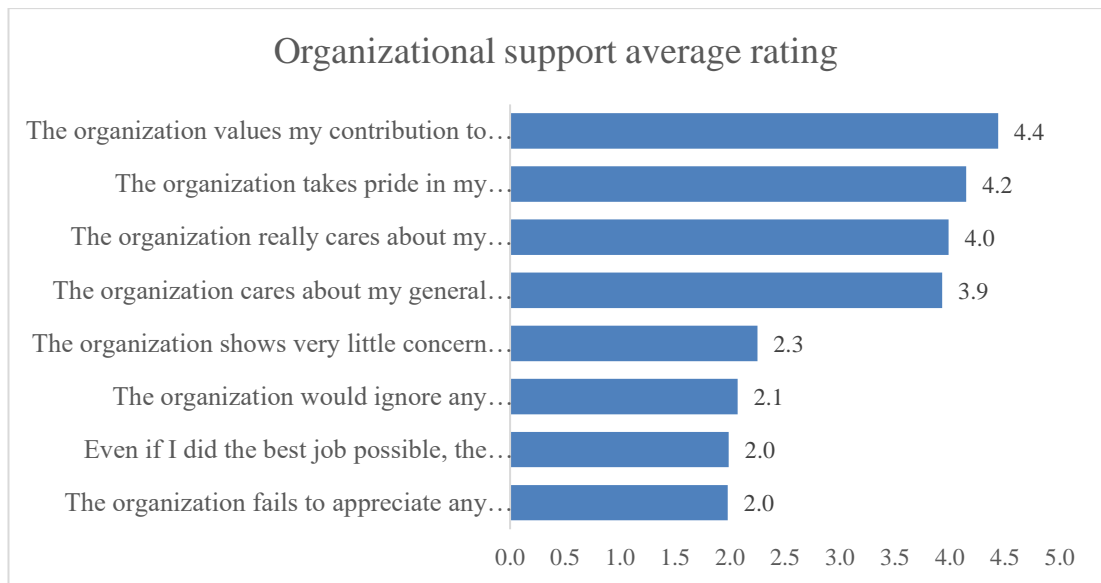


Figure 4.5: Organizational support

Table 4.14 and figure 4.5 show that respondents had high scores on the organization values their contribution, took pride in their accomplishments and cared about their well-being and low scores on the organization ignoring complaints and failing to appreciate them. This shows the respondents agreed they had high level of organizational support. This is noteworthy as it shows respondents are supported in the workplace which is important for recovery.

4.7 Inferential statistics

4.7.1 Tests of association

This study was interested in predicting the value of absenteeism based on the value of remission in schizophrenia and moderating variables (social and organizational support). A multiple regression analysis was carried out for the relationship between the three variables. The results are shown in table 4.15 and 4.16.

Table 4.15: Model summary

Model	R	R square	Adjusted R square	Std. Error of the Estimate
1	0.242 ^a	0.059	0.031	14.51555
2	0.284 ^b	0.081	0.035	14.48600

- a. Predictors: (Constant), Zscore (Org Support), Zscore: Remission in Schizophrenia, Zscore (Social Support)
- b. Predictors: (Constant), Zscore (Org Support), Zscore: Remission in Schizophrenia, Zscore (Social Support), Remission vs Organizational Support, Remission vs Social Support

Table 4.15 shows that in model 1, R square is 0.059. This shows the amount of variability that is explained. Therefore, remission in schizophrenia explains 5.9% of absenteeism. This means there are other factors that contribute to absenteeism which were not factored into this study.

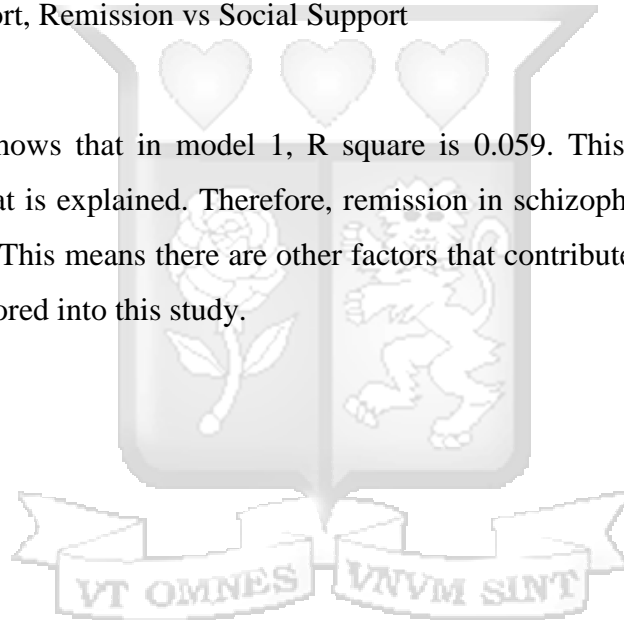


Table 4.16: Test of coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		Beta	Std. Error	Beta		
1	(Constant)	5.011	1.412		3.550	0.001
	Remission in schizophrenia	-3.509	1.477	-0.228	-2.376	0.019
	Social support	0.553	1.414	0.038	0.391	0.696
	Organizational support	-1.132	1.444	-0.076	-0.784	0.435
2	(Constant)	5.081	1.412		3.600	0.000
	Remission in schizophrenia	-3.300	1.480	-0.215	-2.229	0.028
	Social support	1.635	1.752	0.111	0.933	0.353
	Organizational support	-1.821	1.511	-0.122	-1.205	0.231
	Remission vs Social support	-4.160	4.186	-0.140	-0.994	0.323
	Remission vs Organizational support	3.815	2.454	0.196	1.554	0.123

Table 4.16 shows that at level of significance 0.05, if you change/adjust remission by one scale, it adjusts absenteeism by a scale of -3.5. A change in remission status by one unit reduces absenteeism by 3.5 working hours. When the moderating variables, social and organizational support, are tested, the R squared increases by 0.021, that is from 0.059 to 0.081. Despite this positive change in R squared, both moderating factors are not statistically significant. The p-value for social support is 0.696 and for organizational support is 0.435. Hence the moderating variables do not moderate the relationship between remission in schizophrenia and absenteeism.

CHAPTER 5: DISCUSSION OF FINDINGS

5.1 Introduction

This chapter looks at discussion of the findings. It considers the results in relation to existing theory, previous research and how the study advances theory, knowledge and practice.

5.2 Discussion of the findings

This study aimed to advance insight on remission in schizophrenia in the workplace by examining absenteeism and presenteeism of employees. The discussion of findings has been structured around each research objective and the findings made from the analysis. Ideally, it was expected that the relationship between remission in schizophrenia and absenteeism and presenteeism would be negative and significant.

5.3 To explore remission in schizophrenia among employees

The study sought to explore remission in schizophrenia among employees in businesses in Nairobi attending Mathari National Teaching & Referral Hospital. All the respondents had qualified for remission status in schizophrenia by scoring absent, minimal or mild on each of the eight symptoms and maintaining a period of six months as a minimum time threshold. Schizophrenia is a severe and chronic psychiatric disorder characterized by disturbances in thought, perception and behavior (APA, 2013). Remission in schizophrenia is defined as a resolution of symptoms and signs of schizophrenia of more than six months (Yeomans, et al., 2010). The respondents scored absent, minimal or mild on the symptoms; delusions, unusual thought content, hallucinatory behavior, conceptual disorganization, mannerisms/posturing, blunted affect, social withdrawal and lack of spontaneity. This concurs with Kokaçya (2016) that total scores of PANSS were significantly

lower in schizophrenic patients with remission.

In this study, the male respondents had a higher incidence of schizophrenia than females. This is consistent with the trend towards higher incidence in males (Abel, Drake, & Goldstein, 2010). Most of the respondents were between ages of 31-35 years showing that both genders had been diagnosed with schizophrenia, of which there were more males because they are affected earlier. This was followed by more female employees aged between 41-50 years. This is in line with a second peak for women occurring around menopause (APA, 2013). However, remission mean rating by gender showed male employees scored higher in absent symptoms than the females in remission in schizophrenia. This is not consistent with the higher rates of symptomatic remission in females compared to males (Carpiniello, Pinna, Tusconi, Zaccheddu, & Fatteri, 2012).

The remission mean rating by age group showed employees between the ages of 41-60 years scored absent in all eight symptoms of remission in schizophrenia. Employees between the ages of 26-30 years scored between absent and minimal in their symptoms. This is reflective of modal age of onset of schizophrenia and would therefore score low for remission in schizophrenia (APA, 2013). Majority of the respondents had attained primary and secondary level of education. What this means is that due to the modal age of onset of schizophrenia, it hampered the attainment of tertiary and university education. Most of the respondents were in service occupation then followed by labourers. This means their employment category reflected their low level of education.

5.4 To assess the relationship between remission in schizophrenia and absenteeism

The study sought to assess the relationship between remission in schizophrenia and absenteeism. Absenteeism is the failure to turn up for scheduled work (Robbins & Judge, 2013). The study showed that there exists a weak negative correlation between remission in schizophrenia and absenteeism. This negative correlation implies that when remission in schizophrenia increases, absenteeism has a tendency

to decrease. However, the difference lies in the strength of the correlation. There existed a weak negative correlation between remission in schizophrenia and absenteeism. This finding concurs with Helldin (2007), Bodén (2009), Hjortsberg (2011) and Emsley (2011) that remission in schizophrenia has a strong negative relationship with absenteeism. However, this study had a weak association.

This study also found a change in remission status by one unit reduces absenteeism by 3.5 working hours. In addition, remission in schizophrenia explains 5.9% of absenteeism. This means there are other factors that contribute to absenteeism in employees with remission in schizophrenia which have not been factored into this study. The motivation and hygiene factors of the Herzberg two-factor theory may explain the contribution to absenteeism.

5.5 To assess the relationship between remission in schizophrenia and presenteeism

The study sought to assess the relationship between remission in schizophrenia and presenteeism. Presenteeism occurs when employees are physically present at their workplace but are mentally absent because their cognitive energy at work is compromised (Gilbreath & Karimi, 2012). The study showed that there is no significant relationship between remission in schizophrenia and presenteeism. This concurs with Brissos (2011) that remitted patients presented a non-significant trend for presenteeism. This study contrasts Helldin (2007), Bodén (2009), Hjortsberg (2011) and Emsley (2011) that remission in schizophrenia has a strong negative relationship with presenteeism. However, 43% of respondents rated themselves as having an actual excellent job performance compared to 7% possible excellent performance. This contrast in the findings can be explained by motivation and hygiene factors of the Herzberg two-factor theory.

5.6 The association between remission in schizophrenia, absenteeism and social and organizational support

The study had moderating variables in its conceptual framework, social and organizational support. Social support is the strong bonds with work, family, friends and religion that motivate individuals to engage in responsible behavior and refrain from deviant pursuits like absenteeism and presenteeism (Hirschi, 1969). Organizational support is when employees assess the perks of increased work effort and satisfy their mental needs by creating an awareness or feeling in relation to the degree to which the organization appreciates their work effort and looks after their satisfaction. Such perceived support from the organization would boost employees' commitment to organization, achieve objectives and expect reward due to enhanced performance. The effects of perceived support from the organization are employees go above and beyond formal job duties and boosts in in-role performance and reduction in deviant behaviours like presenteeism and absenteeism (Eisenberger, Huntington, Hutchison, & Sowa, 1986).

This study showed that both moderating factors are not statistically significant. Hence the moderating variables do not moderate the relationship between remission in schizophrenia and absenteeism. This does not concur with Hirschi (1969) and Rhoades (2002) that social and organizational support, respectively, moderate the negative relationship between remission in schizophrenia and absenteeism.

CHAPTER 6: CONCLUSION AND RECOMMENDATIONS

6.1 Introduction

This chapter provides a conclusion of the study based on the findings. From the conclusion, recommendations are given to mitigate the weaknesses identified in the study. The findings and recommendations are also relied on to suggest areas for further research.

6.2 Conclusion

A healthy workplace is an organization's continuous efforts to integrate employee health and organizational effectiveness. Employees are the most important asset in an organization. A productive, focused workforce is a competitive advantage for organizations facing competition globally. Every organization is affected by mental illness in the workforce. The link between reduced productivity due to absenteeism and presenteeism and poor health is a compelling issue affecting costs absorbed by employers in employee health strategies. Therefore, there is a critical need to develop effective employees and to manage human resource issues such as absenteeism and presenteeism. Revisiting the problem this study sought to solve; In Kenya, one in four will experience mental illness and will seek outpatient services while four in 10 patients will be admitted for the same. An important occupational outcome for individuals with schizophrenia is their employment status. However, absenteeism and presenteeism take up the largest cost of the economic burden of schizophrenia. Therefore, the study sought to investigate employees who had achieved remission in schizophrenia on absenteeism and presenteeism in the workplace.

Based on the findings of this study, male employees had a higher incidence of schizophrenia and earlier age of onset than females. However, male employees scored more absent symptoms than the females. The correlation study revealed that remission in schizophrenia has weak negative correlation with absenteeism and no relationship with presenteeism. The multiple regression analysis showed that when remission in schizophrenia was changed by one unit, absenteeism decreased by 3.5

working hours. Remission in schizophrenia explained 5.9% of absenteeism. This means there are other factors that contribute to absenteeism. In addition, social and organizational support do not moderate the relationship between remission in schizophrenia and absenteeism. The outcome of the study supported earlier investigation conducted by Helldin (2007), Bodén (2009), Hjortsberg (2011) and Emsley (2011) that remission in schizophrenia has a strong negative relationship with absenteeism and Brissos (2011) that remitted individuals present non-significant trend for presenteeism. However, the outcome of this study did not support earlier investigations conducted by Hirschi (1969) and Rhoades (2002) that social and organizational support moderate the negative relationship between remission in schizophrenia and absenteeism.

The findings from the present study suggest not all are similar to literature. In combination, it must be concluded that the question of whether remission in schizophrenia has a strong negative relationship with absenteeism and presenteeism remains inconclusively answered in the research literature and is in need of further research studies. An important future direction in relation to absenteeism and presenteeism would be to test other factors that cause them in employees with remission in schizophrenia.

6.3 Recommendations

The study suggests that there are other factors that contribute to absenteeism in employees with remission in schizophrenia. In particular, the factors that need to be addressed are the motivating factors associated with the content of the work itself and considered to satisfy employees' mental needs such as the work being carried out, recognition, achievement, responsibility and advancement. Other factors to be investigated are the hygiene factors associated with the work environment and include relationship with the manager, company policy, compensation, supervision and working conditions. It has been found that effective management of absenteeism makes good business logic. The researcher would make the recommendation to employers that they investigate the factors causing absenteeism and presenteeism in

their employees with remission in schizophrenia in order to retain talent in their organizations.

6.4 Limitations of the study

The first limitation of this study is the poor record keeping in MNTRH. It is manual and there's no record of schizophrenia under the Tuesday follow up clinics. This hampered availability of data on annual number of patients with schizophrenia attending MNTRH. This was an obstacle to calculating the sample size. This was mitigated by secondary data. Research done by Ndetei, Khasakhala, Meneghini & Aillon (2013) found 170 patients with schizophrenia in MNTRH, and this formed the target population (Ndetei, Khasakhala, Meneghini, & Aillon, 2013). The second limitation is that many respondents who had achieved remission in schizophrenia experienced no return to work after employer discovered their illness, inability to find work so most resorted to farming in the countryside or staying at home. This was mitigated by searching for more respondents who fit the criteria of being employed thus undertaking the data collection for three months.

6.5 Suggestions for further research

This study was limited to Mathari National Teaching & Referral Hospital clinic attendants who were employees in businesses in Nairobi. Further studies could also be done to look at employer's view concerning absenteeism and presenteeism of their employees who have remission in schizophrenia. Other recommendations for further studies are; first, to examine factors causing absenteeism and presenteeism in employees with remission in schizophrenia. Second, to investigate the impact of leadership styles on employees with remission in schizophrenia. Third, to measure the overall costs of schizophrenia in Kenya. Lastly, in similar future studies to include both questionnaires and interview sessions, so as to collect detailed information.

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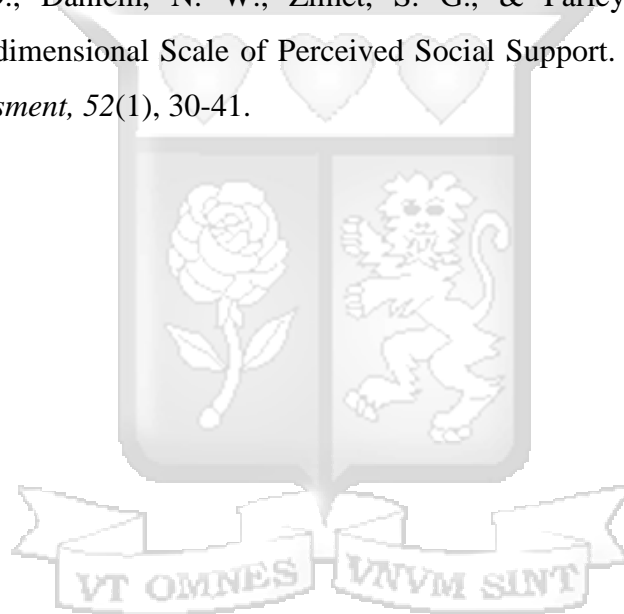
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APPENDIX A: Information and consent form

PARTICIPANT INFORMATION AND CONSENT FORM

THE EFFECT REMISSION IN SCHIZOPHRENIA HAS ON WORKPLACE PRODUCTIVITY OF EMPLOYEES: A CASE OF MATHARI NATIONAL TEACHING & REFERRAL HOSPITAL

SECTION 1: INFORMATION SHEET–HEALTH PERSONNEL

Investigator: Dr. Elizabeth Ngarachu

Institutional affiliation: Strathmore Business School(SBS)

SECTION 2: INFORMATION SHEET–THE STUDY

2.1: Why is this study being carried out?

This study is being carried out to measure the workplace productivity of employees with remission in schizophrenia. The study will examine employees who attend Mathari National Teaching & Referral Hospital's follow up clinics.

2.2: Do I have to take part?

No. Taking part in this study is entirely optional and the decision rests only with you. If you decide to take part, you will be asked to complete a questionnaire to get information on schizophrenia and workplace productivity. If you are not able to answer all the questions successfully the first time, you may be asked to sit through another informational

session after which you may be asked to answer the questions a second time. You are free to decline to take part in this study at any time without giving any reasons.

2.3: Who is eligible to take part in this study?

- Respondent has diagnosis of schizophrenia according to DSM-V
- Respondent has diagnosis of remission in schizophrenia according to modified PANSS
- Respondent is an attendant of Mathari National Teaching & Referral Hospital's follow up clinics
- Respondent is aged between 18-60 years
- Respondent is on medication
- Respondent is an employee in Nairobi

2.4: Who is not eligible to take part in this study?

- Respondent with non-remission in schizophrenia
- Respondent not within the ages 18-60 years
- Respondent not on medication
- Respondent that is unemployed

2.5: What will taking part in this study involve for me?

You will be approached by Dr. Ngarachu and requested to take part in the study. If you are satisfied that you fully understand the goals behind this study, you will be asked to sign the Informed Consent Document (this form) and then taken through a questionnaire to complete.

2.6: Are there any risks or dangers in taking part in this study?

There are no risks in taking part in this study. All the information you provide will be treated as confidential and will not be used in any way without your express permission.

2.7: Are there any benefits of taking part in this study?

The information will be used to increase knowledge and awareness among employers and managers leading to development of better policies for the management of schizophrenia in the workplace.

2.8: What will happen to me if I refuse to take part in this study?

Participation in this study is entirely voluntary. Even if you decide to take part at first but later change your mind, you are free to withdraw at any time without explanation.

2.9: Who will have access to my information during this research?

All research records will be stored in securely locked cabinets. That information may be transcribed into our database but this will be sufficiently encrypted and password protected. Only the people who are closely concerned with this study will have access to your information. All your information will be kept confidential.

2.10: Who can I contact in case I have further questions?

You can contact me, Dr. Elizabeth Ngarachu, at Strathmore Business School, or by e-mail (elizabeth.ngarachu@strathmore.edu), or by phone (0722142885). You can also contact my supervisor, Dr. Angela Ndunge, at the Strathmore Business School, Nairobi, or by e-mail (andunge@strathmore.edu).

I, _____, have had the study explained to me. I have understood all that I have read and have had explained to me and had my questions answered satisfactorily. I understand that I can change my mind at any stage.

Please tick the boxes that apply to you;

Participation in the research study

I AGREE to take part in this research

I DO NOT AGREE to take part in this research

Storage of information on the completed questionnaire

I AGREE to have my completed questionnaire stored for future data analysis

I DO NOT AGREE to have my completed questionnaire stored for future data analysis

Participant's Signature:

_____ **Date:** ____/____/____
DD / MM / YEAR

Participant's Name:

_____ **Time:** ____/____
HR / MN

I, _____ (Name of person taking consent) certify that I have followed the SOP for this study and have explained the study information to the study participant named above, and that he/she has understood the nature and the

purpose of the study and consents to the participation in the study. He/She has been given opportunity to ask questions which have been answered satisfactorily.

Investigator's Signature:

Date: ____/____/____

DD / MM / YEAR

Investigator's Name:

Time: ____/____

HR / MN



APPENDIX B: Questionnaire

This questionnaire will be given to respondents. It has four major parts; a remission in schizophrenia survey which examines symptomatic remission in respondents, a health and work performance survey which inquires about absenteeism and presenteeism, a social support survey which examines the level of respondent's social support and an organizational support survey which measures the extent to which the respondent believes their organization values their contribution.

QUESTIONNAIRE: Please tick the boxes that apply to you

Section A: General Information

1. Your gender (Please tick)

Male Female Other

2. Your age (Please tick)

18-25 26-30 31-35 36-40 41-50 51-60

3. Your education level (Please tick your highest education level)

Primary Tertiary (Diploma, Certificate)

Secondary University (1st degree, 2nd degree, 3rd degree, etc.)

4. Please choose the category that best describes your main job. (Select only one)

Executive, administrator, or senior manager (e.g., CEO, sales VP, plant manager)

- Professional (e.g., engineer, accountant, systems analyst)
- Technical support (e.g., lab technician, legal assistant, computer programmer)
- Sales (e.g., sales representative, stockbroker, retail sales)
- Clerical and administrative support (e.g., secretary, billing clerk, clerical officer)
- Service occupation (e.g., security officer, janitor, food service worker, bus conductor, house help)
- Precision production and crafts worker (e.g., mechanic, carpenter, machinist)
- Labourer (e.g., truck driver, construction worker, tea picker)

Section B: Remission in Schizophrenia Survey							
	Absent	Minimal	Mild	Moderate	Moderately severe	Severe	Extreme
5. Delusions							
6. Conceptual disorganization							
7. Hallucinatory behaviour							
8. Blunted affect							
9. Social withdrawal							

10. Lack of spontaneity							
11. Mannerisms and posturing							
12. Unusual thought content							

13. Duration of remission

- 6 months-1 year
 2-3 years
 4-5 years
 6-7 years
 8-9 years
 10 years and above

SECTION C: Absenteeism and Presenteeism Survey

14. About how many hours altogether did you work in the past 7 days? (Please tick)

- 0-10
 11-20
 21-30
 31-40
 Above 40

15. . How many hours does your employer expect you to work in a typical 7-day week?

- 0-10
 11-20
 21-30
 31-40
 Above 40

16. Now please think of your work experiences over the past 4 weeks (28 days). In the spaces provided below, tick the number of days you spent in each of the following work situations. In the past 4 weeks (28 days), how many days did you:

16a. Miss an entire work day because of problems with your physical or mental health? (Please include only days missed for your own health, not someone else's health.)

- Zero days 1 day 2 days 3 days
 4 days 5 days 6 days 7 days

16b. Miss an entire work day for any other reason (including vacation)?

- Zero days 1 day 2 days 3 days
 4 days 5 days 6 days 7 days

16c. Miss part of a work day because of problems with your physical or mental health? (Please include only days missed for your own health, not someone else's health.)

- Zero days 1 day 2 days 3 days
 4 days 5 days 6 days 7 days

16d. Miss part of a work day for any other reason (including vacation)?

- Zero days 1 day 2 days 3 days
 4 days 5 days 6 days 7 days

16e. Come in early, go home late, or work on your day off?

- Zero days 1 day 2 days 3 days
 4 days 5 days 6 days 7 days

17. About how many hours altogether did you work in the past 4 weeks (28 days)?

18. How would you rate the usual performance of most workers in a job similar to yours?

Poor Fair Average Good Excellent

19. How would you rate your usual job performance over the past year or two?

Poor Fair Average Good Excellent

20. How would you rate your overall job performance on the days you worked during the past 4 weeks (28 days)?

Poor Fair Average Good Excellent

SECTION D: Social Support Survey					
Indicate how you feel about each statement. Tick the answer.					
	Strongly Disagree	Mildly Disagree	Neutral	Mildly Agree	Strongly Agree
21. There is a special person who is around when I am in need					
22. There is a special person with whom I can share joys and sorrows					
23. My family really tries to help me					

24. I get the emotional help & support I need from my family					
25. I have a special person who is a real source of comfort to me					
26. My friends really try to help me					
27. I can count on my friends when things go wrong					
28. I can talk about my problems with my family					
29. I have friends with whom I can share my joys and sorrows					
30. There is a special person in my life who cares about my feelings					
31. My family is willing to help me make decisions					
32. I can talk about my problems with my friends					

SECTION E: Organizational Support Survey

Indicate how you feel about each statement. Tick the answer

	Strongly Disagree	Mildly Disagree	Neutral	Mildly Agree	Strongly Agree
33. The organization values my contribution to its well-being					
34. The organization fails to appreciate any extra effort from me					
35. The organization would ignore any complaint from me					
36. The organization really cares about my well-being					
37. Even if I did the best job possible, the organization would fail to notice					
38. The organization cares about my general satisfaction at work					
39. The organization shows very little concern for me					
40. The organization takes pride in my accomplishments at work					

APPENDIX C: Permission letter from SBS

This letter will be given to Mathari National Teaching & Referral Hospital by SBS and basically confirms that the researcher is a current student at SBS and introduces the research topic plus a request to assist the researcher with information required for the study.



Strathmore Business School

Friday, 10 November 2017

Dr. Joseph Jumba,
Medical Superintendent,
Mathari National Teaching & Referral Hospital,
P.O. Box 40663-00100,
Nairobi.

Dear Sir,

RE: FACILITATION OF RESEARCH – MS. ELIZABETH NGARACHU

This is to introduce Ms. Elizabeth Ngarachu, who is a Master of Business Administration student at Strathmore Business School, admission number MBA/92968/16. As part of our MBA Program, Elizabeth is expected to do applied research and to undertake a project. This is in partial fulfilment of the requirements of the MBA course. To this effect, she would like to request for appropriate data from your organization.

Elizabeth is undertaking a research paper on-: “**The effect remission in schizophrenia has on workplace productivity of employees: A case of Mathari National Teaching & Referral Hospital**”. The information obtained from your organization shall be treated confidentially and shall be used for academic purposes only.

Our MBA seeks to establish links with industry, and one of these ways is by directing our research to areas that would be of direct use to industry. We would be glad to share our findings with you after the research, and we trust that you will find them of great interest and of practical value to your organization.

We appreciate your support and we shall be willing to provide any further information if required.

Yours sincerely,



Muriithi Njogu.
Director – MBA Programs



Strathmore
UNIVERSITY

Ole Sangale Road, Madaraka Estate
P.O Box 59857 00200 Nairobi, Kenya
Cell: +254 703 414/16/7
Email: info@sbs.ac.ke or Visit www.sbs.strathmore.edu
Twitter: @SBSKenya

Strathmore Business School is a proud member of:



APPENDIX D: Letter from Mathari National Teaching & Referral Hospital

This letter will be given to the researcher by Mathari National Teaching & Referral Hospital and basically confirms that the organization has given the researcher the go ahead to carry out the study and share the findings once done.

	
MINISTRY OF HEALTH	
MATHARI NATIONAL TEACHING & REFERRAL HOSPITAL	
Telephone Nairobi 2654814/2337694	P. O. Box 40663-00100 NAIROBI
When replying please quote:	<u>Email:matharireferral@gmail.com</u>
	Date: 02/01/2018
 To Whom It May Concern	
 Dear Sir/Madam	
 <u>RE: FACILITATION OF RESEARCH – MS. ELIZABETH NGARACHU</u>	
 We hereby confirm that Dr. Elizabeth Ngarachu is a Medical Doctor in Mathari National Teaching and Referral Hospital.	
 Dr. Ngarachu is an MBA student at Strathmore Business School and we have given her the go ahead to carry out her research study on “The effect remission in schizophrenia has on workplace productivity of employees: A case of Mathari National Teaching & Referral Hospital” . The findings of which will be shared with the hospital administration.	
 Yours sincerely,	
	
Dr. Joseph Jumba Medical Superintendent	
	

APPENDIX E: IRB Research Ethical Approval



16th Dec, 2017

Elizabeth Wambui Ngarachu
Strathmore University
wambui.liz@gmail.com

Dear Elizabeth,

IRB- RESEARCH APPROVAL

The USIU- A IRB has reviewed and granted ethical approval for research proposal titled '*The Effect of Remission in Schizophrenia has on Workplace Productivity of Employees: A Case of Mathari National Teaching and Referral Hospital.*' The approval is valid for **six months** from the date of this notification. Once you complete the research, please submit a soft copy to the IRB office.

You are advised to follow the approved methodology and report to the IRB any serious unexpected events and potential anticipated problems that might change the risk exposure to the subjects.

Should you or study participants have any queries regarding IRB's consideration of this project, please contact irb@usiu.ac.ke.

A handwritten signature in blue ink, appearing to read 'Amos Njuguna', is written over a horizontal line.

Prof. Amos Njuguna

Dean, School of Graduate Studies, Research and Extension

p.o.box 14634-00800 | tel:254-730-116-000 | info@usiu.ac.ke
Nairobi, Kenya | fax:254-20-3606100 | www.usiu.ac.ke

APPENDIX F: IRB Participant debrief form

Thank you for participating in this research study. The purpose of this study is to gain an understanding of the relationship between absenteeism and presenteeism in employees with remission in schizophrenia in businesses in Nairobi. Your participation will help researchers gain more insight into relevant strategies and policies for management of schizophrenia in the workplace.

Once again, thank you for your participation.

Sincerely,

Dr. Elizabeth Ngarachu

