Determining the Bio-psychosocial Outcomes of Sexual Assault among Survivors Seeking Care at Gender-Based Violence Clinic of Kenyatta National Hospital

By

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DECLARATION

I declare that this is my original work and has not been presented for the award of a degree or diploma in any other Instituition.

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DEDICATION

I dedicate my dissertation work to my husband, daughter, parents and sisters. Achievement is the sweet taste that is the resultant of efforts taken and slightly differs from success. As Bo Bennett said, a dream becomes a goal when action is taken towards its achievement. It does not matter how many times we have failed during the process of achieving something but the persistent endeavors only mark true achievement. The fact of the matter is, failures are finger posts on the road to achievement.

Contents

DECLARATION ii

SUPERVISORS' APPROVAL iii

ACKNOWLEDGEMENT iv

DEDICATION v

LIST OF FIGURES x

LIST OF TABLES xi

LIST OF ABBREVIATIONS xii

OPERATIONAL DEFINITION xiii

ABSTRACT xiv

CHAPTER ONE: INTRODUCTION 1

1.1 Background information 1

1.2 Statement of the Problem 3

1.3 Study Justification 4

1.4 Significance of the study 5

1.5 The research question 6

1.6 The study objectives 6

1.6.1 Broad objective 6

1.6.2 Specific objectives 6

CHAPTER TWO: LITERATURE REVIEW 8

2.1 Concept of Sexual Violence 8

2.2 Magnitude of Sexual Violence 8

2.3 Forms of Sexual Assault 10

2.3.1 Rape and attempted rape 10

2.3.2 Child Sexual Abuse 11

2.3.3 Female genital mutilation (FGM) 11
2.4 The Outcomes of Sexual Assault 12
2.4.1 The Physical/Biological Outcomes of sexual assault among survivors 12
2.4.2 The psychological Outcomes of sexual assault among survivors 13
2.4.3 The Social Outcomes of sexual assault among survivors 14
2.5 Theoretical framework 15
2.4 Conceptual Framework 19
CHAPTER 3: RESEARCH METHODOLOGY 20
3.0 Introduction 20
3.1 Study Design 20
3.2 Study Area 20
3.3 Study Population 21
3.4 Eligibility Criteria 21
3.4.1 Inclusion criteria 21
3.4.2 Exclusion Criteria 22
3.5 Sample size determination 22
3.6 Recruitment and Sampling techniques 23
3.6.1 Sampling techniques 23
3.6.2 Recruitment and Consenting procedure 24
3.7. Data collection instruments 24
3.7.1 Questionnaires 25
3.6.2 Interviewing guide 26
3.6.3 Pretest of the study instruments 26
3.9 Data collection procedures 26

3.9.1 For quantitative data......27

3.9.2 For qualitative data......27

3.10 Data Management and Analysis......28

3.10.1 Quantitative Data......28

3.10.2 Qualitative Data......29

3.11 Dissemination Plan......29

3.12 Ethical Considerations......29

CHAPTER 4: RESULTS......32

4.1 Introduction......32

4.2 Bio-Demographic characteristic of participants......32

4.3 Biological Outcomes...... **Error! Bookmark not defined.**

4.4 Psychological Outcomes...... **Error! Bookmark not defined.**

4.5 Sociological Outcomes......48

CHAPTER 5: DISCUSSION......45

5.1 Introduction......50

5.2 Discussion......51

5.2.1. Demographic Characteristics......51

5.2.2 Physical Outcomes of SA among survivors seeking care at the GBV clinic, KNH. 52

5.2.3 Psychological Outcomes of SA among survivors seeking care at the GBV clinic, KNH. 53

5.2.4 Sociological Outcomes of SA among survivors seeking care at the GBV clinic, KNH......54

5.3 Conclusions......56

5.4 Recommendations......56

5.4 Strengths......58

5.5 Limitations......58

REFERENCES **59**

Appendices **68**

Appendix 1: PARTICIPANT INFORMATION AND INFORMED CONSENT FORM 68

Appendix 2: Questionnaire 70

Appendix 3: Interview guide 74

Appendix 4: Directional Map of KNH 75

Appendix 5: Photo of KNH 76

Appendix 6: Approval from Ethics 77

Appendix 7: Approval from KNH 78

Appendix 8: Turn It In Similarity Index 79

LIST OF FIGURES

Figure 4. 1 Age of the respondents 33
Figure 4. 2 Gender of the Respondents 34
Figure 4. 3 Marital Status of the respondents 36
Figure 4. 4 Age of the participant at the time of the assault 37
Figure 4. 5 Knowledge of perpetrator by the respondent 37
Figure 4. 6 Period between time of assault and time of study 38
Figure 4. 7 Frequency of the assault 39
Figure 4. 8 Nature of the assault 40
Figure 4. 9 Immediate symptoms and long term effects 42
Figure 4. 10 Follow up visits of respondents post assault 43
Figure 4. 11 Patients who sought immediate care 44
Figure 4. 12 Psychological Outcomes Experienced 45
Figure 4. 13 Respondents with suicidal thoughts 47
Figure 4. 14 Patients who had attempted self-injurious behaviour 47
Figure 4. 15 Alcohol and Drug abuse 48
Figure 4. 16 Received Professional counseling after the assault 50

LIST OF TABLES

Table 4. 1 Home address of the respondents 34
Table 4. 2 Occupation of the respondents... 35
Table 4. 3 Biological symptoms of the respondents post assault 41
Table 4. 4 Sociological Problems Encountered 49

LIST OF ABBREVIATIONS

AIDS: Acquired Immunodeficiency Syndrome

GBV clinic: Gender-Based Violence clinic

HIV: Human Immunodeficiency Virus

KDHS: Kenya Demographic and Health survey

KNH: Kenyatta National Hospital

SA: Sexual Assault

UNICEF: United Nations Children Fund

WHO: World Health Organization

OPERATIONAL DEFINITION

Biological outcomes: is used to describe processes and states that occur in the bodies and cells of survivors following the sexual assault act. The outcomes will be measures by laboratory investigations, examinations and history taken

Outcomes: something that follows from an action, dispute, situation; result; consequence, in this case following sexual assault act

Psychological outcomes: is used to describe primarily mental or emotional consequences relating to the human mind and feelings following sexual assault act

Sexual assault: refers to any sexual act that includes at least rape, attempted rape, child molestation or contact in which the survivors do not consent.

Sexual violence: any sexual act that is directed towards the survivor forcefully, including rape, attempted rape, any sexual act, attempt of a sexual act, sexual remarks, by a perpetrator irrespective of their affiliation with the survivor in any locale, home and workplace.

Sociological outcomes: consequences relating to society or to the way society views the victim or the victim perceives following the sexual assault act.

Survivor: refers to an individual who has experienced sexual assault. It is the most preferred term as it has a positive inference

Perpetrator: a person who inflicts the sexual assault act on another person (survivor)

ABSTRACT

Background: Sexual assault (SV) is a common form of criminal violence worldwide that affects all levels in society. Globally, more than 15 million girls have faced forced sex at some point in their lives, with 2018 alone indicating more than 9 million women having been sexually victimized (Islam, 2017; Islam, 2015 UNFPA, 2018). In Kenya than 32% of the female population experienced sexual violence before 18years of age (Wangu Kanja foundation, 2016) and 18% of males facing the challenge (UNICEF, 2010). Sexual assault may result in could either be physical, psychological and/or social immediate and long-term outcomes. Many researchers have focused on the prevalence and prevention of sexual assault, while little attention has been given to the sexual assault outcomes. Therefore, there is a need to explore more on the psychosocial outcomes of sexual assault.

Objective: The study sought to determine the biopsychosocial outcomes of sexual assault among survivors seeking care at gender-based clinic, Kenyatta National Hospital.

Methodology: The study was done at GBV Clinic, Kenyatta National Hospital. Descriptive cross-sectional mixed method study design was adopted among 44 sexual assault respondents. Data was collected for a period of 8 weeks. Tools used were semi-structured questionnaire and an in-depth interview guide.

Analysis: Quantitative data analysis was done through SPSS software using descriptive statistics. The qualitative in-depth interviews were analyzed with the help of NVIVO software following transcription. Coding was done then themes generated. P-value of ≤ 0.05 was significant. Quantitative data was presented using pie charts, frequency distribution tables, histograms, and line graphs. Qualitative data was done using narratives.

Results: Majority of the respondents were 16-20yrs, female, single, students, knew their perpetrator, had been assaulted once, physical sexual assault and no use condom/ lubricant. Most of the respondents had developed vast biological, psychological and social outcomes. The study has highlighted the gaps in management and research gap on outcomes associated with sexual assault and its impact on the survivors.

Recommendations: Mental health team and social support providers to have a follow up plan for the survivors, Policies and interventions be designed for long-term interventions and Strengthening of sexual violence prevention programs.

Dissemination: Findings will be delivered to different entitled bodies, published in one of the international journals and presented during the annual general scientific conference. The study confirms the enormous biopsychosocial outcomes that sexual assault survivors encounter post sexual assault act The findings are of great significance to SA survivors, health care providers, policymakers, law enforcers, and all other additional partners involved in managing sexual assault and health-related issues.

CHAPTER ONE: INTRODUCTION

1.1 Background information

Sexual assault is type of sexual violence that comprises of rape or attempted rape, child abuse, and sexual harassment or threats that involves forceful sexual contact or behavior without consent from the survivors (Department of Health & Human Services, 2015; WHO, 2017). It affects female more than male. (Islam, 2017; Islam, 2015 UNFPA, 2018). Sexual violence refers to obtaining sexual activity when consent in not obtained or not freely given regardless of the relationship to the victim (WHO, 2018).

Globally, more than 15 million girls have faced forced sex at some point in their lives, with 2018 alone indicating more than 9 million women having been sexually victimized (Islam, 2017; Islam, 2015 UNFPA, 2018). According to WHO (2017), one-third of women population with whom have been in an intimate relationship, reported having gone through physical and/ or sexual violence in their lifetime by their partner. Regionally, the situation is even worse with reports of a large proportion of women reportedly being violated. For instance, studies (Keesbury et al. 2011; Sendo & Meleku, 2015) indicated that 47 % of Zambian and 59-77% Ethiopian women experienced sexual violence. These reports are consistent with that of Wakelu (2018), in Uganda that indicated university female students being victims of rape or sexual assault following intoxication with substances use. In Kenya, the *Wangu Kanja Foundation* (2016), observed that more than 32% of the female population experienced a case of sexual violence before 18years of age. According to UNICEF (2010), a study done among 3,000 youth aged between 24-30 years, 1 in 3 girls experienced sexual assault, while 18% of males equally facing the challenge. KDHS (2014),

indicated that sexual abuse is increasingly being caused by the people the survivors call girlfriend or boyfriend. Similarly, Ondicho (2018) identified that more than 49% of married persons are forced into sex by their intimate partners.

The outcomes of sexual assault are enormous and affects individuals, family, community and national levels. They include physical, psychological, legal or economic (Nakijoba, 2014). The physical outcomes associated with sexual assault include but not limited to bruises, fistula and physical injuries to the genito-anal areas that could cause excessive bleeding (McNally, Heeren, and Robinaugh, 2017). Contracting of sexually transmitted diseases, unintended pregnancies, chronic fatigue, and muscle injury have also been well documented (Amstadter et al., 2011). According to Peter-Hagene and Ullman (2018), the Psychological outcomes are vast including post-traumatic stress disorder (PTSD) and depression which is characterized by feelings of hopelessness and the loss of interest in most of the activities during such times. Bradley et al. (2017) established that severe depression post-assault is a leading cause of suicide among survivors. Social outcomes include isolating one's self from others which is correlated with fear of non-disclosure because of the potential risk of being blamed, stigma and poor community relations (Ullman, 2010).

However, globally substance use, exposure to pornography, early initiation to sex as well as dressing seductively, may predispose one to sexual assault (Klein, 2015). Furthermore, it has been documented that prior exposure to sexual violence and psychological challenges may also drive one into engaging in forced sex (Klein, 2015; Signh, 2013).

According to United Nations General Assembly (2014), two sustainable Developmental goals (SDGs) through four targets which are 5.2, 5.3, 16.1 and 16.2 among the other SDGs, were designed directly to address, avert and lessen violence against women and girls. Cubbing violence against women and girls took an important position in SDGs compared to Millenium Developmental Goals (MDGs). WHO (2013), indicated that sexual assault increases the cost of public health and social welfare systems and decreases ability of many survivors to contribute to social and economic life and culture of fear, such that they are less likely to become involved in public life. This then derails strong leadership and advocacy which is necessary for motivation and commitment of financial and other resources.

Although some studies have been done in Kenya on sexual violence mainly prevalence (UNICEF, 2010; KDHS, 2014), there is a clear gap in the inductive determination of bio-psychosocial outcomes. Therefore, this study seeks to determine the bio-psychosocial outcomes of Sexual assault among survivors attending Kenyatta National Hospital's Gender-Based recovery clinic.

1.2 Statement of the Problem

Globally, sexual violence remains a public health concern (García-Moreno, 2015). In the USA, up to 19% of clients receiving health care services are survivors of sexual assault (USA-Bureau of Journal statistics, 2015). Similarly, in many African countries that include Zambia and Kenya, the prevalence of sexual violence is reportedly worrying. UNICEF (2012) and Okal *et al,* (2018) estimated that 21.4-32% of males and females had experienced sexual assault before the age of 18years in Kenya and Zambia. In Kenya, rape is reported to occur every half an hour (Onyango-Ouma et al., 2016 and KNH GBV centre, 2018).

Besides the negative traditional view of having children out of wedlock or as a result of rape, increased incidences of HIV/AIDs, unintended pregnancies, PTSD, survivors of sexual violence generally face enormous bio-psychosocial problems (Mathur et al, 2015). Verelst et al. (2014), identified a huge relationship between sexual violence with other stressors such as daily stressors, stigmatization, and stressful war events, and the impact of all of these on the girl victims' mental health in Congo.

Thus this study seeks to quantify and explore the bio-psychosocial outcomes of sexual assault among survivors of sexual assault at KNH, GBV clinic to inform policymakers on how to support the survivors hence improve their health outcomes and how to prevent enormous physical and mental illness post-sexual assault act.

1.3 Study Justification

Kenya experiences the burden of sexual assault like any other sub-Saharan African country. According to UNICEF (2010), up to 3,000 youth aged between 24-30 years, 1:3 girls experience sexual assault while more than 18% of the Kenyan males are equally facing the challenge. It is also documented that, rape occurs after every half hour in Kenya (Onyango-Ouma et al., 2017)

The Kenyan government has in various policy and strategic documents including the National Population Advocacy and IEC strategy for Sustainable Development 1996 – 2010, the Mainstreaming Gender into the Kenya National HIV and AIDS strategic plan 2000 – 2015, and the Kenya National HIV/AIDS Strategic Plan II (KNASPII) 2005 – 2010, cited sexual violence as a matter of concern (Kilonzo et al., 2017). It has further in-cooperated universal health coverage as one of its key BIG 4 agenda. Thus the health of the sexually assaulted survivors ought to be

realized within this package as it will uphold gender equality and equity and access to justice for women and as a result support in achieving social pillar of vision 2030. Furthermore, the Kenyan constitution gives all Kenyans (including those sexually assaulted) a right to optimum health. This can only be effective if the bio-psychosocial outcomes are determined.

Despite this, little attention from researchers, policy-makers and program designers has been given to SA, making it a huge hurdle for it to be recognized as a genuine public health concern (Kilonzo et al., 2017). This then shows how much little attention has been given to the aftermath of sexual assault acts to survivors posing greater health risks especially mental health issues.

The fact that this study will explore the experiences of the survivors as far as these outcomes are concerned, data obtained will provide a better understanding of survivors' experiences and notify mental health team and social support providers regarding interventions that can be provided to the survivors.

1.4 Significance of the study

In exploring and determining the outcomes of Sexual assault, this study aims at contributing to the country's efforts in exploration for evidence-centered decision making. This study will be of significance to persons and groups nationally, regional and worldwide with regards to intervening on the magnitude of sexual assault.

The study will also be of great significance to SA survivors, health care providers, policymakers, law enforcers, and all other additional partners involved in managing sexual assault and health-related issues, by bearing in mind that the significance of aspects such as societal support, mentoring by the members of the community, coping abilities, and self-efficacy significant in

decreasing psychosocial issues. Knowledge generated from the study can also be used in identifying the research gap and making recommendations on what ought to be done. Therefore, the findings will be of great importance to every individual involved in the identification and management of sexual assault outcomes.

1.5 The research question

1. What are the physical outcomes of sexual assault among the survivors seeking care at the GBV clinic, KNH?

2. What are the psychological outcomes of sexual assault among the survivors seeking care at the GBV clinic, KNH?

3. What are the social outcomes of sexual assault among the survivors seeking care at the GBV clinic, KNH?

1.6 The study objectives

1.6.1 Broad objective

To determine the bio-psychosocial outcomes of sexual assault among the survivors seeking care at the GBV clinic, KNH.

1.6.2 Specific objectives

1. To assess the physical outcomes of sexual assault among the survivors seeking care at the GBV clinic, KNH.

2. To identify the psychological outcomes of sexual assault among the survivors seeking care at the GBV clinic, KNH.
3. To determine the social outcomes of sexual assault among the survivors seeking care at the GBV clinic, KNH

CHAPTER TWO: LITERATURE REVIEW

2.1 Concept of Sexual Violence

Sexual violence (SV) refers any or attempted sexual act, rape, attempted rape, attempt of sexual act or sexual remarks directed forcefully towards an individuals' contrary, by the perpetrator irrespective of their affiliation with the survivor, in any locale, at home and workplace (WHO, 2018). It includes sexual assault, sexual harassment, and sexual abuse. Violence does not denote physical violence rather psychological and emotional pain. Sexual assault is a type of sexual violence that comprises of rape or attempted rape, child abuse, and sexual harassment or threats contrary consent of the survivors (Department of Health & Human Services, 2015; Peter et al., 2011; WHO, 2017)

2.2 Magnitude of Sexual Violence

Globally, sexual violence is a universal health concern (García-Moreno, 2015). SV is possibly the most common human rights that violate, destroys lives, breaks communities, and puts a hold on developments. According to WHO (2017), up to one-third of women whom have had close sexual relationship, have experienced sexual violence once in their lifetime. United Nations (2018) indicated that more than 15 million girls had experienced sexual violence at some point in their lives, with 2018 alone indicating more than 9 million women being sexually victimized globally (Islam, 2017; Islam, 2015 UNFPA, 2018). A study done in 10 European countries among young Belgian women and men between the age of 16 to 27 years, found that 20.4% and 10.1%, had experienced lifetime sexual victimization respectively (Krahe et al., 2015). A study WHO (2015),

on domestic violence and health of women in10 countries, established that between 13-62% and 3-29% of women and men respectively, had been assaulted physically by their partners during their lifetime in the previous year.

Regionally, WHO (2015), indicated that between 16-59% of women from Africa had been assaulted sexually by an intimate partner. It is also that reported every twenty seconds, sex crime occurs in South Africa. Available data, although limited, also established that in Sub-Saharan Africa, there was a marked increase of Sexual gender-based violence concurrently with Human immunodeficiency virus infection (Keesbury & Askew, 2010). Studies by Keesbury et al. (2011) and Sendo and Meleku (2015), established that 47 % of Zambian and 59-77% Ethiopian women experienced a type of sexual violence.

In Kenya, sexual violence cases have been on the rise tremendously with rape incidences occurring every half an hour. (Onyango-Ouma et al., 2017). Kenya as a country has been on the frontline in the continent in advocating for development of guidelines on sexual assault management with several non-governmental organizations assuming the role of scaled-down efforts to address sexual violence in an array of locales (Keesbury and Askew, 2015; Population Council, 2012). Available literature also indicates sexual violence in Kenya receiving inadequate attention (Kilonzo, 2016). Nationally, statistics on sexual violence did not exist until the KDHS 2003 (Central Bureau of Statistics, 2004).

A study conducted in Kenya among women age 12 – 24 years, established that 25% had been coerced into sex and losing their virginity as a result (Raifman et al., 2011; Population Council, 2012). Similarly, a study done by Lawn and Kerber (2016) among high school students, indicated that 9% of them, reported not using contraceptive in their previous sexual contact as they had been

coerced. Another study also done in the country, indicated that up to 29% and 20% of girls and boys of 13 years of age respectively, had been coerced into sex and having gone through sexual harassment at an early age. It also established, 24% of women are reported to have at least experience once and up to 4% of adolescents having contracted HIV infection following rape (Liverpool VCT, 2015).

Sexual assault results in disturbing experiences that could cause several physical and psychological negative outcomes to the survivors, such as sexually transmitted diseases, anxiety, childlessness, depression, social isolation and PTSD (McMahon et al., 2015).

2.3 Forms of Sexual Assault

SA include rape that includes forced vaginal, oral or anal penetration, attempted rape, female genital mutilation (FGM), groping or fondling and child sexual abuse (Department of Health & Human Services, 2015)

2.3.1 Rape and attempted rape

Rape, Abuse, and Incest National Network (RAINN, 2015), defines rape as forced sexual intercourse by an object or human body part into vaginal, anal, or oral cavity. It may have been through physical force or coercion towards an unconscious person isn't fit to consent, or hasn’t attained the age to consent (Roberts et al., 2009). Globally rape is under-reported. According to Black et al. (2011), 51.1% and 40.8% of female survivors had been raped by an intimate partner and by a person known to them respectively while 52.4% and 15.1% of male survivors indicating being raped by a close ally and a strange respectively. Baiocchi et al. (2019) also established that

yearly rape incidence stands at approximately 7·2%. Rape encompasses date, gang, marital, serial and statutory rape (RAINN, 2015)

2.3.2 Child Sexual Abuse

Child molestation refers to coercing a minor into sexual act when he or she cannot comprehend neither can they consent and in the long run infringes the rights and societal beliefs (WHO, 1999). Statistic indicates that child abuse cases keep on increasing for the past years According to WHO (2017), approximately 1 billion children aged 2-17 years experienced sexual violence that could either be physical, emotional, or sexual. UNICEF (2014), also indicated that over 120 million children had been affected by sexual abuse, demonstrating the largest number of sexual assault survivors. In 2017, UNICEF also indicated that in 38 developing countries, approximately 17 million adult women admitted to have been coerced and forced during their childhood to engage in a sexual relationship.

WHO (2017), outlines consequences associated with child sexual assault as physical, social and psychological health problems: gastrointestinal, chronic pelvic pain, experiencing pain during sex, irregular menses, somatization, depression, anxiety, low self-esteem, PTSD, sexual dysfunctions, social relations, body image worries, and abuse of substances.

2.3.3 Female genital mutilation (FGM)

FGM refers to partial of complete removal of females' external genitalia. Globally, approximately 130 million girls face the repercussions of FGM with an estimated 30 million facing the possibility of being cut in the next 10 years. FGM is more prominent in Africa and the Middle East with up to 29 countries practicing it (UNICEF, 2016). FGM is considered a form of sexual assault as it

involves physical and emotional torture to the girls and women with the survivors often not consenting to the procedure.

2.4 The Outcomes of Sexual Assault

The outcomes of SA are enormous and affects individuals, family, community and national levels. They could either be physical, psychological, social and legal or economic (Nakijoba, 2014). According to Peter-Hagene and Ullman (2018), the Psychological outcomes that the survivors could face are vast and include post-traumatic stress disorder (PTSD), depression which is characterized by feelings of hopelessness and the loss of interest in most of the activities during such times. Bradley et al. (2017) also noted that severe depression post-assault is a leading cause of suicide among survivors. Social outcomes such as isolating one's self from others and this is correlated with fear of non-disclosure because of the potential risk of being blamed, stigma and poor community relations (Ullman, 2010).

2.4.1 The Physical/Biological Outcomes of sexual assault among survivors

The physical outcomes associated with sexual assault include but not limited to sexually transmitted infections bruises, fistula and physical damages to the genito-anal regions which could cause excessive bleeding (McNally, Heeren, and Robinaugh, 2017). Additionally, women's health and wellbeing after the assault vary from fatal to non-fatal including murder, suicide, physical injuries, deaths caused by AIDS and severe persistent pain (Nakijoba, 2017). Other evidence also indicates that, women suffering from violence are in a less position to make a choice on use of contraceptive such as condom (Basile et al., 2016; WHO, 2015). Subsequently, survivors could be predisposed greatly to unwantedd pregnancies (Nakijoba, 2017).

Complications such as pelvic pain, sexual dysfunction, difficulties during pregnancy and insecure abortions have been associated with sexual assault that could result in miscarriage and low birth-weight babies (Nakijoba, 2017). Female victims, who have forceful sex are likely to experience virginal bleeding that may have a long term effect on the sexual activity of the women (Tark and Kleck, 2014). Documented findings have also established that, women who had been sexually assaulted in their lifetime, were at high risk pregnancies and difficulties during delivery that could result in antepartum hemorrhage, prolonged first stage of labor, intrapartum maternal distress and use of instruments to aid in emergency delivery (Gisladottir et al., 2016).

2.4.2 The psychological Outcomes of sexual assault among survivors

PTSD, hopelessness, apprehension, and low self-worth, as well as drug and alcohol abuse, indulging in hazardous sexual behavior and subsequent victimization are some of the major outcomes on women's mental state (Nakijoba, 2017; IGWG, 2011; Mugawe & Powell, 2010) and have also been linked to childhood and adolescence sexual abuse (Basile et al., 2016; Bhandari, 2015; Médecins Sans Frontières, 2013). Studies done, have also indicated suicidal ideation alongside depression and PTSD (Brabamt et al., 2014), although depression mediates sexual assault to suicide (Sigfusdottir et al., 2013).

A Study done among male victims, suggested that, there is an increased likelihood of survivors to suffer from immediate and long term range of psychological consequences after the assault (Médecins Sans Frontières, 2013) which could include guilt, sexual dysfunction, generalized body pains, sleep disorders, pulling out from sexual relationships and attempted suicide (Raifman et al., 2011; Keesbury &Askew, 2010; Population Council, 2008).

Research indicates also that survivors are at a risk of learned behavior; for instance, boys who experienced sexual violence at a younger age are likely to be aggressive to women during their adulthood, and prior knowledge of sexual abuse changes their sexual violence ant HIV infection perceptions (Keesbury et al., (2011) ; Population Council, 2016; Raifman et al., 2011)

2.4.3 The Social Outcomes of sexual assault among survivors

Literature on effects of sexual assault such as social stigma (which is a key outcome), negative social attitudes, and decreased levels of social inclusiveness and harmony following sexual violence is growing tremendously. Stigma could also arise following pregnancy termination (Scott et al., 2017).

Robbins (2011), observed that survivors of sexual assault are likely prone to stigmatization as a result of the feministic characteristic of most of the members of the communities in Kenya. The stereotype that the male cannot be victims of sexual violence has also made it a challenge for the male individuals to come out openly and have the sexual abuse against them addressed. Similarly, there are comments the community are likely to direct to the women especially in a way to suggest that their actions could have led to the action of therapists (Rich, 2014).

Sexual harassment is more likely to break the trust in a family set up between partners and other family members. Evidence from a study done in Brazil shows that there are more than 55.7 percent of the women that have their family relationships broken through causes related to sexual abuse (Albuquerque Netto et al., 2017).

2.5 Theoretical framework

Sister Callista Roy's Adaptation Model will be adopted to explain how sexual assault affects the lives of survivors by explaining how one adapts to changes and occurrences in life after the sexual assault act (Roy, 2009). Parker and Smith (2010), indicated that adaptation is an important life course that yields health. Concepts of Roy's Adaptation Theory for this study include stimuli, behavior, adaptation level, coping, and adaptive modes.

Roy argues that stimuli consist of focal stimuli which in this case is the sexual assault and what it does to the survivor whereby they may channel their energy into healing physically and emotionally (Roy 2009). Contextual stimuli surround the human adaptive system but are on the sideline and affect how the human system manages or copes with the focal stimulus (Roy, 2009).

Roy also denotes behavior as "internal or external actions and reactions under indicated circumstances" (Roy, 2009). Sexual assault survivors may have an increased heart rate, may try to flee from the perpetrator, depression, Anxiety symptoms and PTSD (Stahl, 2013).

Adaptation is denoted as either a negative or positive behavior. Survivors who experience sexual assault may adjust or mal-adjust, depending on the health services available, survivors own factors, the extent of the emotional and psychological trauma, and the strength and resilience of the survivor's adaptive modes and subsystems (Roy, 2009). Adaptation entails three potential processes: integrated, compensatory, and compromised (Roy, 2009). The integrated adaptation level involves all the processes of the human adaptive system (Roy, 2009). The compensatory level proceeds after the integrated process and maybe recognized when survivors exhibit signs of distress, anxiety, or are calm and independent. Survivors may adapt physically by seeking the

medical help needed to manage/prevent sexually transmitted diseases and assistance with dealing with concerns about pregnancy or becoming pregnant. The compromised adaptation level arises when the integrated and the compensatory levels fail. Women, men, and children may adapt negatively by turning to self -isolation, PTSD, or suicide.

Coping is the ability to respond to something in the environment. Two general forms of coping exist: innate and acquired (Roy, 2009) and involve two subsystems. The regulator subsystem is "comprised of neural, chemical, and endocrine systems" (Roy, 2009). Innate coping takes place automatically without any knowledge of it happening through the regulator sub-system. A survivor's innate coping during and following sexual assault may be exhibited when the survivor responds immediately to protect herself and/or flee from the perpetrator. The cognator subsystem is comprised of "emotion, learning, judgment, and perceptual and information processing" (Roy, 2009) and leads to acquired coping. Acquired coping occurs when one remembers a previous similar situation or learns a new way to deal with the assault. The exhibited behavior is "deliberate, conscious, and acquired" (Roy, 2009). Acquired coping may be the target of interventions to promote adaptation following a sexual assault.

Adaptive modes reflect the person's ability to adapt: physiological, self-concept, role function, and interdependence modes (Parker and Smith, 2010; Roy, 2009). The physiological mode is comprised of "oxygenation, nutrition, elimination, activity and rest, protection, senses, neurologic function, endocrine function, and fluid, electrolyte, and acid-base balance" (Roy, 2009). Whenever physiological changes occur, the person responds by adapting to the situation. A negative physiological adaptation may occur when the survivor is not able to sleep and get the proper

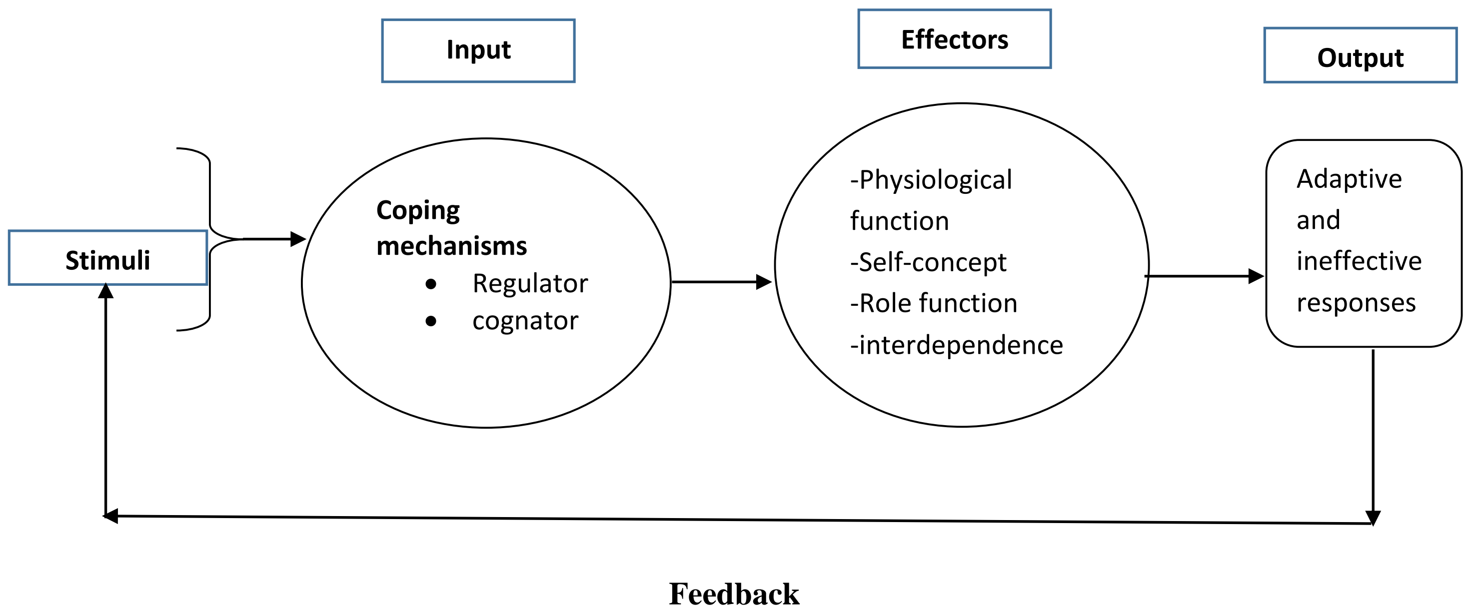
amount of rest after the sexual assault. An example of a positive adaptation is the healing of physical injuries.

Self-Concept is how the person beliefs, thoughts and feelings of him or herself (Roy, 2009). The person's behavior is an outward expression of positive and negative ways of coping (Roy, 2009). The self-concept of survivors following sexual assault may have been altered negatively including thoughts of unworthiness and suicide. An effective behavior may be demonstrated by survivor seeking for counseling and medical treatment needed and recognizing their feelings of sadness, unworthiness, or blame as normal responses to the assault.

Role function refers to a person roles in the society (Roy, 2009). A survivor may be a husband, father, wife, a mother, a student, a child, and an employee. If a survivor has been sexually assaulted, her role function may be altered as a consequence of the trauma of the experience. Role function as an adaptive mode may promote coping by allowing women to perform the other roles in their lives following the assault.

Interdependence comprises of interactions of giving and receiving of love, respect, and worth (Roy, 2009). Significant persons and support systems are significant following sexual assault as they support and shape individual responses to recover (Ullman et al., 2007). Negative social reactions may interfere with recovery (Ullman et al., 2007). Survivors may have difficulty in maintaining relationships with the significant other, family, and peers at work. These relationships, however, may be a valuable resource for coping.

The Roy model may have a comprehensive way to view the survivors’ experiences, responses, and adaptation that will depict the outcomes of sexual assault.



Feedback

Figure 4.1: Age of the respondents 2.1 A person as an adaptive system based on Roy's adaptation model (RAM)

2.4 Conceptual Framework

The conceptual framework of this study is adopted from the theoretical framework as shown in Figure 2.1. The independent variable in this study is Sexual assault which is in this case the stimuli. The dependent variables are the biopsychosocial outcomes of sexual assault. The intervening variables includes factors that contribute to sexual assault act from occurring. There is a direct influence of the independent variable to the dependent variables.

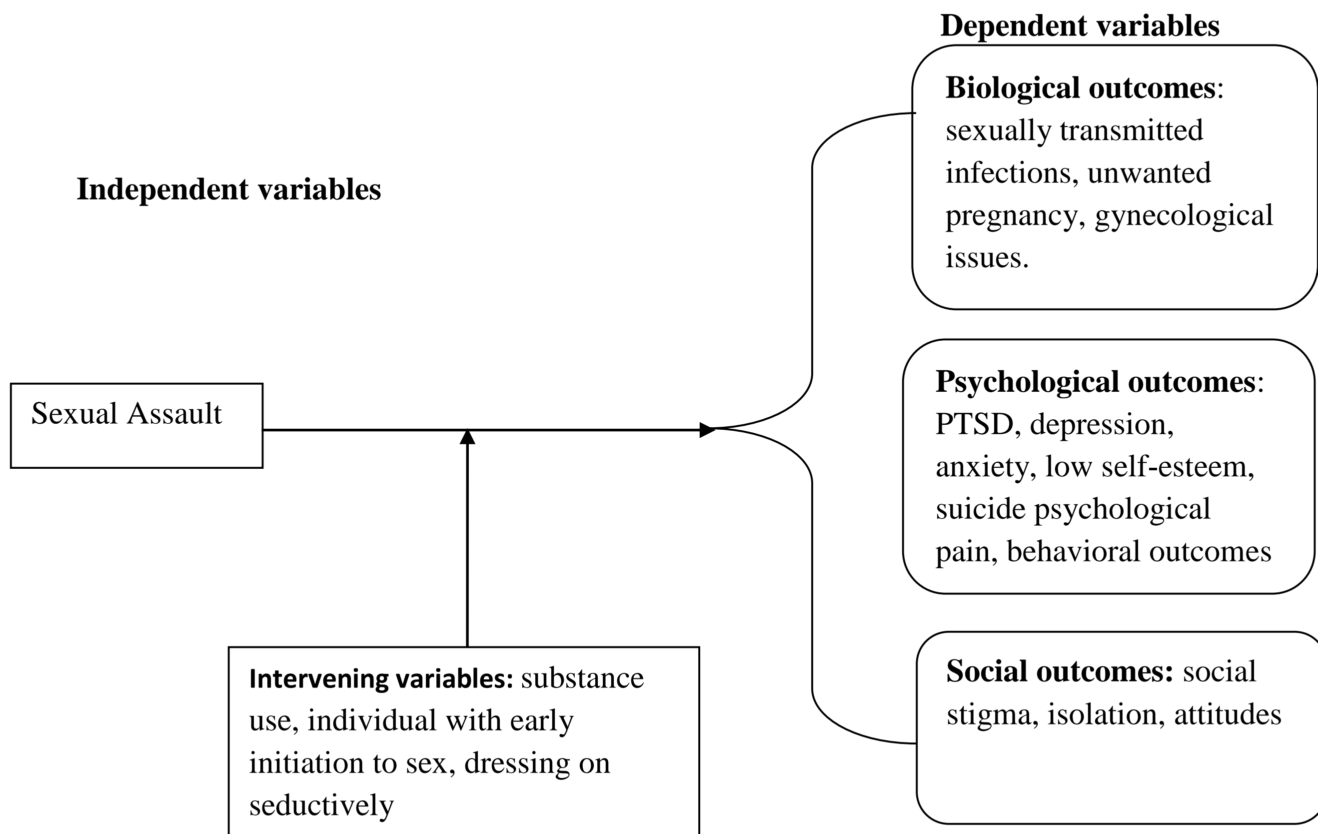


Figure 4.1: Age of the respondents 2.2 A conceptual framework.

CHAPTER 3: RESEARCH METHODOLOGY

3.0 Introduction

This chapter deals with research design, study area, study population, sampling procedures to including sample size determination, data collection methods and the materials used, management and analysis of data. The ethical considerations are also presented here.

3.1 Study Design

Descriptive cross-sectional study design for quantitative approach was adopted since the study sought to describe a phenomenon (bio-psychosocial outcomes of sexual assault). A mixed-method research design that in-cooperated both the quantitative and qualitative data from the participants, was used.

3.2 Study Area

The Kenyatta National Hospital is the largest public, tertiary, teaching and referral hospital under the Ministry of Health, located to the immediate west of Upper Hill in Nairobi, the capital and largest city of Kenya. Its approximately 3.5 kilometers, west of the city's central business district. Being a national referral hospital, it offers diverse health services, among them, care to gender-based violence patients and survivors.

This study was conducted at the accident and emergency and Gender-Based Violence and recovery clinic of Kenyatta National Hospital. The clinic specifically sees those who have been assaulted and experience any form of abuse: Physical, sexual, emotional and neglect. The Clinic provides

free medical management, HIV Post-Exposure Prophylaxis (PEP) and psychosocial support to; the survivors of rape and sexual violence. It serves women, children survivors, and male survivors. It is within the Kenyatta National Hospital which is Kenya's national referral hospital for specialized care located in Nairobi county- Kenya.

3.3 Study Population

The study population consisted of all survivors of sexual assault receiving care at the accident and emergency and Gender-Based Violence and recovery clinic of Kenyatta National Hospital. within the data collection period. The monthly statistics indicated that an average of 50 survivors were being seen in a month with nearly 37% being children, 42% being female and 21% being male. This includes those seeking care at the hospital for the first time and those coming back for follow up.

3.4 Eligibility Criteria

3.4.1 Inclusion criteria

i) Survivors who were at least 16 years old and above. Consent was sought from survivors who were of age 18 years and above, while those who were 16 and 17 years, parental consent and survivors assent was sought. According to the Kenyan constitution, a person who has not attained the age of 18 years is considered a child and therefore cannot give consent. This is in line with the United Nations Convention on the Rights of the Child (UNCRC).

ii) Those who did not consent to study were not included.

3.4.2 Exclusion Criteria

i) Survivors who had a mental illness before the SA and aren't mentally stable since it might had influenced the results. Furthermore, it could have inflicted more psychological trauma or they can't be in a position to give reliable information.

ii) Those who had other physical illnesses before the sexual assault

3.5 Sample size determination

Approximately 50 patients per month visit the KNH GBV clinic post SV. Sample size determination was done using the Fishers et al (1999) formula.

$$n=Z^2pq / d^2$$

Where: n = the sample size (respondents that were interviewed)

d = 0.05(sampling error the margin error (5%)that will be accepted in this study.

Z =1.96(Z score corresponding to 95% confidence interval

P=0.347(prevalence).

Q = 0.653(1-P) which is 1-0.5=0.5

Hence

To calculate a proportion with a 95% level of confidence and a margin of error of 5% we obtain

$$n = (1.96)^2 / 4(0.05)^2 = 384$$

when the population is less than 10000, an alternative formula is recommended:

$$nf=n / (1+n/N)$$

nf= desired sample size when study population is less than 10000

n= desired sample size when study population is greater than 10000

N=estimates of the population size

Thus nf= 384 / (1+384/50)

= 44 participants

Thus, a total of 44 participants, participated in the study.

3.6 Recruitment and Sampling techniques

3.6.1 Sampling techniques

For quantitative study, convenience sampling was used to recruit participants visiting the clinic during the data collection period. Survivors who had already participated in the study, and were on their subsequent routine visits, were not be recruited again. The number of clients seeking care, could not be foretold for a specific period of time hence, convenience sampling was preferred to enable the researcher attain the desired sample size.

For, Qualitative data, the researcher purposively sampled 10 participants as they visited the clinic, since saturation is usually achieved during qualitative data analysis when 10-30 participants have been interviewed (Guest et al., 2006; Polit & Beck, 2012).). Purposive sampling simply allows the researcher to decide what needs to be known and sets out to find people who can and are willing to provide the information by virtue of knowledge or experience, in this case sexual assault survivors seeking care at accident and emergency and Gender-Based Violence and recovery clinic

of Kenyatta National Hospital. Also, the number of clients seeking care, could not be foretold for a specific period of time hence, Total Population Sampling type of purposive was preferred to enable the researcher attain the desired sample size. The 10 participants, were recruited once 34 participants number of quantitative data had been meet.

3.6.2 Recruitment and Consenting procedure

The researcher presented a letter of approval to conduct a study to the clinic in-charge. The researcher then requested to have documentation on how the survivors had been scheduled for care. A poster was put up on the notice board at the GBV clinic to advertise for those who would wish to partake in the study. The researcher met the participants on their specific days of care; explained the purpose of the study for those met the inclusion criteria. The components of the participant information sheet as in appendix I, was well elaborated to the participants. The respondents were given time to reflect on the information before consenting. The researcher also asked question in relation to the participation information form to test the comprehension of the respondent. Thereafter, the researcher requested the consent of the participants whereby Consent was sought from survivors who were of age 18 years and above, while those who were 16 and 17 years, parental consent and survivors assent was sought.

3.7. Data collection instruments

A semi-structured questionnaire and an in-depth interview guide were used to collect data from the participants.

3.7.1 Questionnaires

A self-administered semi-structured questionnaire developed by the researcher had four sections as stated in appendix two containing both open and closed-ended questions. It was adopted in gathering quantitative primary data. Survivors given time to answer a set of questions that were in the questionnaire touching on their background information, sexual assault act and biopsychosocial effects encountered. The questionnaire tool developed by the researcher constituted of the following sections in reference to research objectives:

1) **Section one: Bio-demographic data and general concerns**

   Age, Gender, Home address, Occupation, Cell phone number, Marital status, age when they were assaulted, knowledge of the perpetrator, type of SA and the times they have been assaulted

2) **Section two: Biological Outcomes**

   This section was to assess the biological outcomes of SA. It included the symptom, long term biological issues and follow up medical care.

3) **Section three: Psychological outcomes**

   This section had questions developed by the researcher to determine the psychological outcomes of sexual assault such as mental disorders, suicide, indulgence in alcohol or substance use.

4) **Section four: Sociological outcomes**

   This section had questions developed by the researcher to determine the sociological outcomes of sexual assault that included social stigma, self-blame, hate

towards the opposite sex, negative social attitudes, low self-esteem and marital issues.

This was able to expose the outcomes of sexual assault act.

3.6.2 Interviewing guide

This study adopted a face to face in-depth interview between the sexual assault survivors and the researcher as they provide and told stories about their life experiences post the SA. An interview guide was developed by the researcher and was used in guiding the interview sessions. The interview guide constituted two sections as in appendix three that was open to adjustment according to respondent responses. This tool was used on 10 participants who participated in the interviews. The respondents were coded as RE.

3.6.3 Pretest of the study instruments

The questionnaire was tested to a sample of sexual violence survivors at Mathare National teaching and referral hospital's Gender-Based and recovery clinic. The pre-test sample was 10% of the sample size. The purpose of subjecting the tool to a pre-test was to ensure that it is valid and reliable.

3.9 Data collection procedures

Both qualitative and quantitative data collection methods, in this case, semi-structured questionnaires and in-depth interview respectively, were used to collect data. One research assistant was recruited and trained on aims and objectives of the study, data collection tools and procedures, and how to handle the respondents to ensure comprehensive data was obtained.

3.9.1 For quantitative data

Questionnaires were distributed by the researcher and research assistant who offered assistance and guidance when need arose. They were asked to complete and return them to the researcher and research assistants. Questionnaires were serialized to ensure anonymity. The data collection by use of the questionnaire was done for approximately two months, until required number of participants had been attained. A total number of 34 participants filled in the questionnaires. A translator was recruited in the event the respondent couldn't understand the language or could not read the questionnaire.

Respondents were asked a set of questions on their background information, the sexual assault act and biopsychosocial effects encountered after sexual assault. This exposed the outcomes of sexual assault act.

3.9.2 For qualitative data

During the interviewing process, a counselor was recruited to accompany the researcher so as to attend to any emotional responses that might have arouse. Consent on the participation of the counselor was first sought from the survivor and parents for those who are below 18 years, and informed them that information gathered, was to be treated with confidentiality. The in depth interview was audio recorded for analysis and are they revealed useful intuitions about feelings, opinions, needs, beliefs, thoughts and meanings on survivor's experiences on SA. The recordings, brought out the picture of what happened, why and the outcomes experienced by the survivor post-sexual assault act. The survivors were allowed to withdraw from the session whenever they chose

to. This tool was used by respondents who had not participated in the questionnaire to avoid biases and was conducted on different days from those participating in the questionnaire.

Data collected was assembled and stored safely to ensure confidentiality awaiting data management and analysis

3.10 Data Management and Analysis

3.10.1 Quantitative Data

Upon completion of data collection, questionnaires were checked for completeness, validity, and clarity. The data was then entered into a Microsoft Excel program where data cleaning was done. Missing values, Extreme values, and inconsistency were identified and corrected. After cleaning, the data was then exported to statistical package for social sciences (SPSS) version 22.0 software for analysis.

Descriptive statistics (measures of dispersion and central tendency) was used especially i=n the socio-demographic profiles of the respondents. The inferential statistics was done using the using *t*-tests and Pearson correlations. Associations between the variables were calculated at 95% confidence interval (P-value 0.05), to minimize the statistical error and hence has credible findings. The final data was presented using the pie charts, frequency distribution tables, histograms, and line graphs.

3.10.2 Qualitative Data

The qualitative in-depth interview sessions were audio-taped. Prior to the analysis, the recordings were first translated from Swahili to English then analyzed using NVivo 12. Transcripts were generated and coded. Four themes emerged from the interviews which were bio-demographical data, Biological, psychological and social outcomes associated sexual assault. The researcher also included the key gestures/nonverbal communications picked and noted.

3.11 Dissemination Plan

i. The findings will be delivered to the school of nursing sciences faculty the thesis defense.
ii. The ethics and review committee will be provided with a copy of the entire research report.
iii. This work will be published in one of the international journals
iv. The report of this finding will be presented during the annual general conference as scientific evidence.

3.12 Ethical Considerations

Review of the proposal, clearance, and approval to conduct the study was sought by presenting the study proposal to The University of Nairobi- Kenyatta National Hospital Ethics and Research Committee.

Autonomy

Respondents were required to have understood then sign a voluntary informed consent before participating. Besides, there was no any coercion or inducement to participate.

The anonymity of participants was ensured by serializing the structured questionnaires. No form of identification was required from participants or any markers to identify participants noted on any questionnaires or recorded discussion during the interview. Data collected was only accessible to the researcher. They were stored under lock and key and research information in computers under passwords.

Participation in this study was purely voluntary and no compensation was expected by the respondents for participating in the study. Refusal of participants to take part in the research did not draw any penalty. The participants also had a right to pull out from the study without any penalties. The respondents were free to withdraw from answering any question they felt uncomfortable with.

Non-maleficence

Participants were educated on the possible benefits of the study and risks before they participated in the study. The contact of the member of the ethics review committee and that of the research supervisor were made available on the consent form just in case the participants felt that their rights are violated.

The respondents were permitted to ask questions and answers were provided to their satisfaction. The researcher also asked the participants questions on the information provided to ascertain their comprehension about the study before they signed the consent forms.

Beneficence

The participants were informed on their rights and the significance of the study in their lives. The researcher and the supervisors also approved that there was no personal interest concerning this study

Justice

Survivors who are more than 16 years old both male and female were recruited. This is justified the mental health CAP 248-part V section 10, that states any person who has attained sixteen years of age, desires voluntarily to be admitted for treatment for mental illness and makes a written application to the in-charge in duplicate form given, may be accepted as a voluntary patient into a mental hospital. A survey of women in E.U member states revealed that 11% of women have experienced sexual violence at least once after the age of 15 years (European Union Agency for Fundamental Rights, n.d 2014). This means much of the survivors will have been captured for the study and less left out.

CHAPTER 4: RESULTS

4.1 Introduction

This chapter highlights the findings from both the qualitative and quantitative data. The results were organized and based on the specific research objectives which was to (i) assess the physical, (ii) psychological and (iii) social outcomes of sexual assault among survivors seeking care at the GBV clinic at Kenyatta National Hospital.

The findings are presented using pie charts, bar graphs, frequency tables and narratives for interpretation purposes. Section one presents the findings on bio-demographic data and the subsequent sections report on findings regarding biopsychosocial outcomes based on study objectives.

This study had selected a sample size of 34 patients for quantitative data and 10 respondents for the interview. Out of these 34 questionnaires were filled and 10 respondents interviewed, equating to a response rate of 100%.

4.2 Demographic characteristic of participants

This section highlights the bio-demographic characteristics of the respondents including: age, gender, marital status, occupation, physical address, age during the assault, knowledge of the perpetrator, frequency and nature of the assault.

4.2.1 Age of the respondents

Most of the respondents (39.5%, n=17) were aged between 21-30 years, (34.9%, n=15) were 16-20 years, (16.3%, n=7) were between 31 and 40 years, and (9.3%, n=4) were aged 41-50.

The Mean±SD of the age of the respondents was 25±8years. Minimum age was 16 years whereas the maximum age was 48 years.

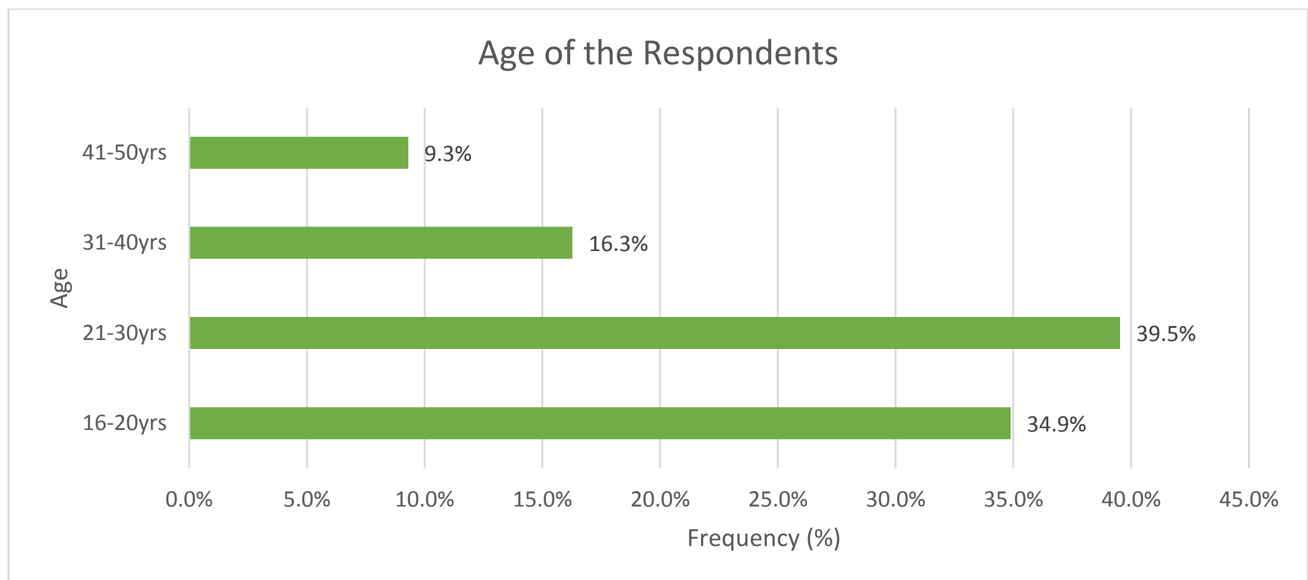


Figure 4. 1 Age of the respondents

4.2.2 Gender of the Respondents

A large percentage of the research participants 88.4%(n=38) were female while 11.6%(n=5) were male.

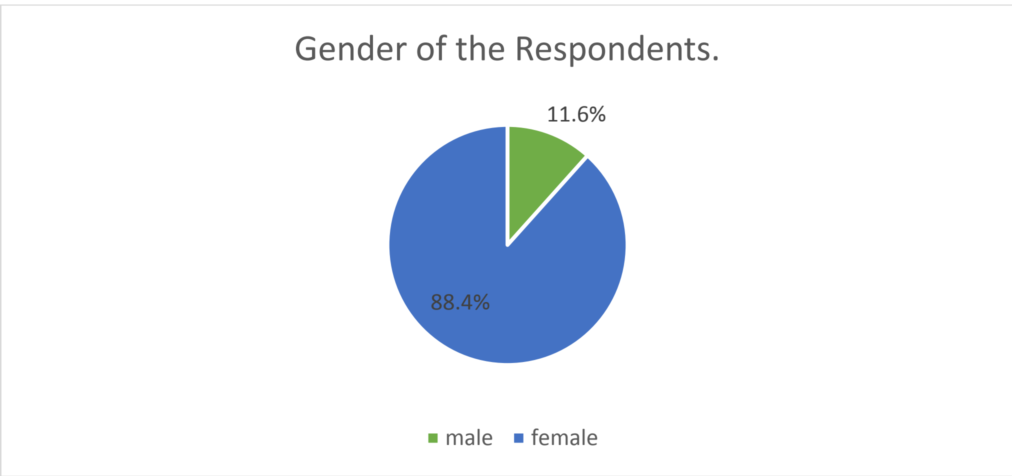


Figure 4. 2 Gender of the Respondents

4.2.3 Residence of the respondents

As shown in Table 1, almost half 48.3%(n=14) of the respondents reside in Kibera while 20.7%(n=6) reside around Nairobi. Other areas mentioned include Kiambu, Kitui, Kitale and Kakamega with 1 patient each.

Table 4. 1 Residence of the respondents

	Location	Frequency (n)	Percent (%)
Within Nairobi	Kibera	14	48.3%
	Nairobi	6	20.7%
	Dandora	1	3.4%
	Kangemi	1	3.4%
	Kawangware	1	3.4%
	Railways	1	3.4%
	South B	1	3.4%
Outside Nairobi	Kiambu	1	3.4%
	Kitale	1	3.4%

	Kitengela	1	3.4%
	Kitui	1	3.4%

4.2.4 Occupation of the respondents

From the findings, almost half of the patients (42.5%, n=17) were students, (35.0%, n=14) were self-employed, (7.5%, n=3) were unemployed. The remaining 6 respondents had different occupations each including accountant, chef, driver, hairdressers and house help as shown below.

Table 4. 2 Occupation of the respondents

Occupation	Frequency (n)	Percent (%)
Student	17	42.5
Self-employed	14	35.0
Unemployed	3	7.5
Accountant	1	2.5
Chef	1	2.5
Driver	1	2.5
Hairdresser	1	2.5
House-help	1	2.5

4.2.5 Marital status of the respondents

Notably, a large percentage of the respondents were single (85%, n=34), (7.5%, n=3) were married and (7.5%, n=3) separated/ divorced.

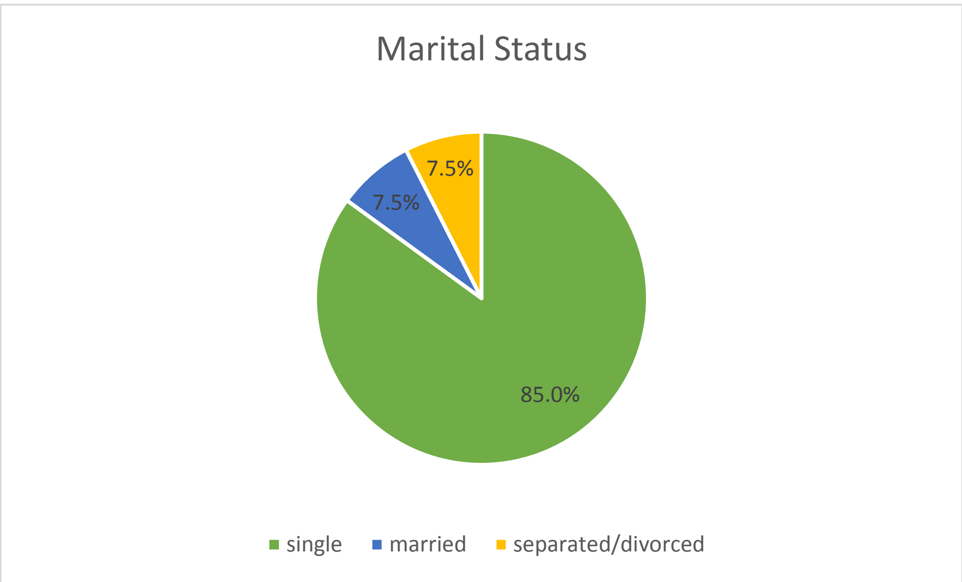


Figure 4. 3 Marital Status of the respondents

4.2.7 Age of the participant at the time of assault

Of the participants, majority 38.6%(n=17) were aged 16-20 at the time of the assault, 34.1%(n=15) were 21 to 30 years, 22.7%(n=10) were 31 to 40 while 4.5%(n=2) aged between 41 and 50.

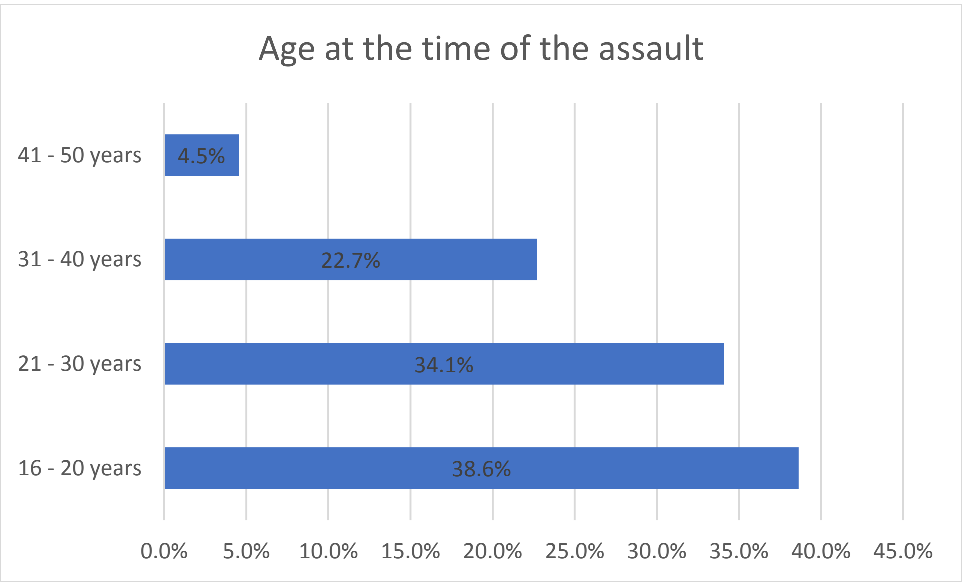


Figure 4. 4 Age of the participant at the time of the assault

4.2.8 Knowledge of the perpetrator by the respondent

Half of the patients (50%, n=22) indicated that they knew the person who committed the sexual act, similarly the other half (50%, n=22) indicated that they did not know the perpetrator.

Of the respondents who knew their attacker, majority (66.7%, n=30) claimed that they were their friends or Family. (husband's friend, uncle, or family friend). (19%, n=8) were assaulted by their boyfriends or ex-boyfriends, (9.5%, n=4) by their neighbours, and (4.8%, n=2) by their shamba boy.

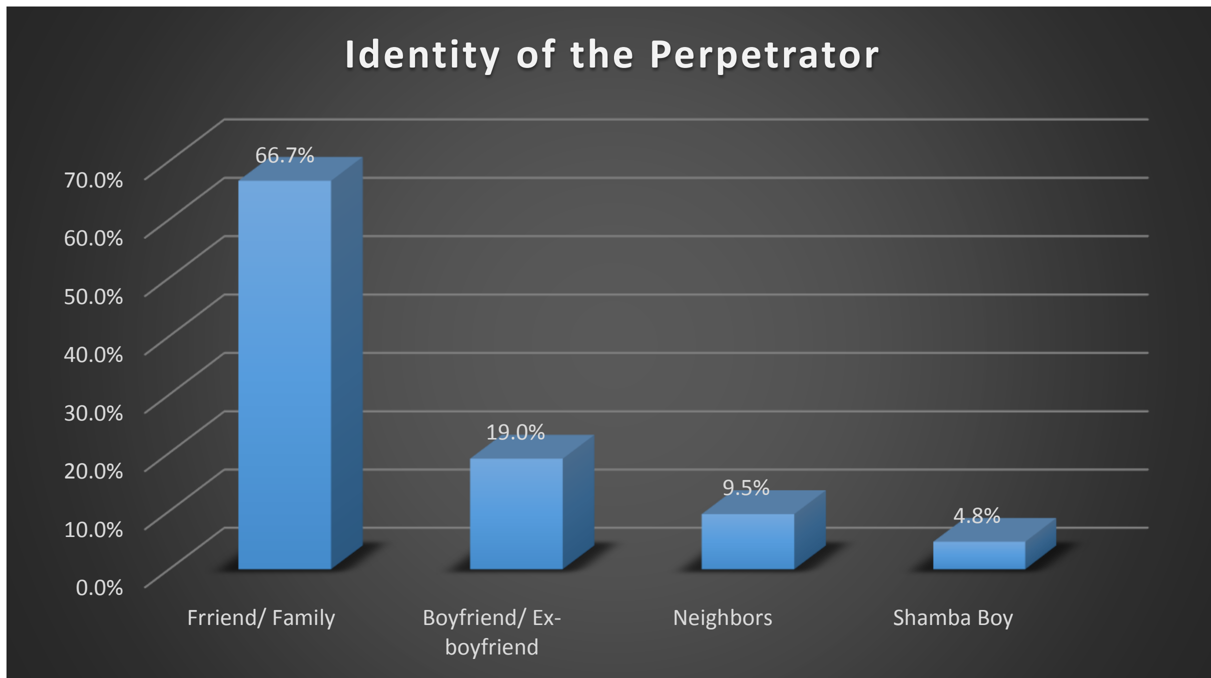


Figure 4. 5 Knowledge of perpetrator by the respondent

4.2.9 Period between time of assault and time study

From the research findings, 32.4%(n=11) of the patients were assaulted 1-5 years ago, 23.5%(n=8) were assaulted less than a month ago, 17.6%(n=6) 6 to 10 years ago, 14.7%(n=5) 6 months to 1 year ago and 11.8%(n=4) 1-6 months ago.

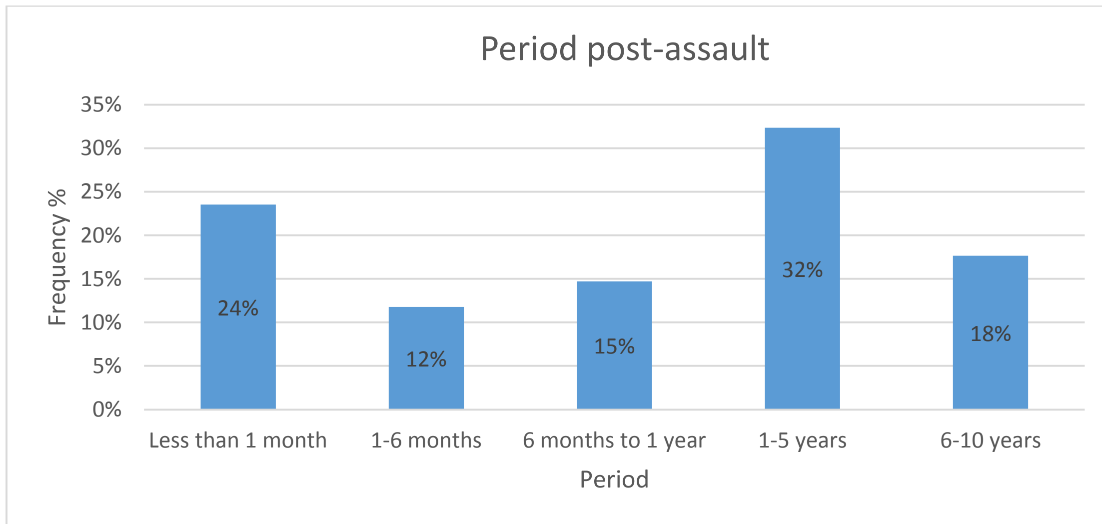


Figure 4. 6 Period between time of assault and time of study

4.2.10 Frequency of assault

Majority of the patients (79%, n=26) had been assaulted just once while the other (21%, n=7) had been assaulted multiple times.

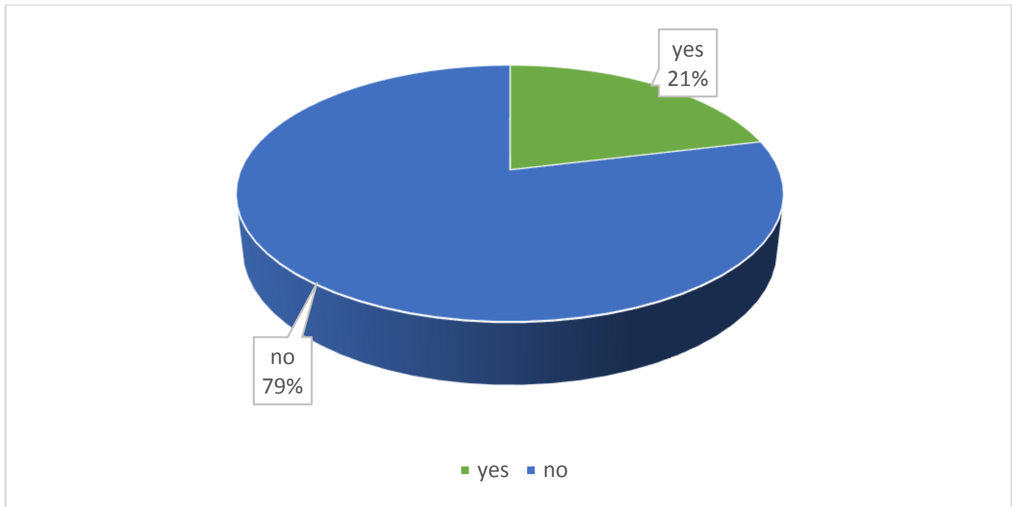


Figure 4. 7 Frequency of the assault

4.2.11 Nature of the assault

Most of the research participants (79.6%, n=43) indicated that the assault was physical (inappropriate touching of body parts, vaginal or anal penetration, unwanted kissing) whereas (20.4%, n=11) indicated that it was verbal (sexual jokes, remarks about body parts, asking for sexual intercourse). None highlighted forced oral contact.

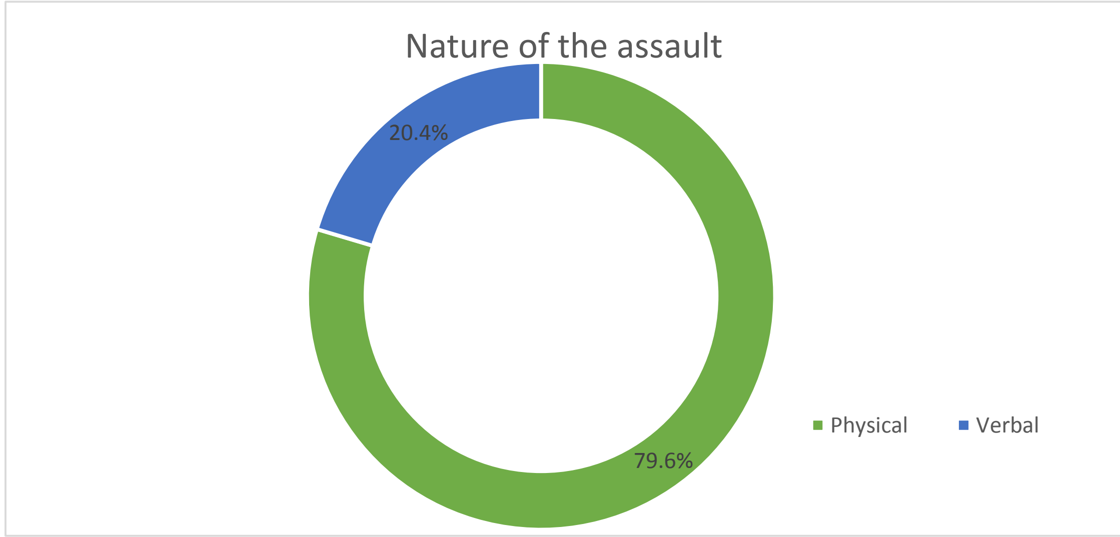


Figure 4. 8 Nature of the assault

The interviews revealed that most cases of assault happened at night or late evening and by strangers when coming from work, out drinking with friends, or coercion by neighbors and friends. From the interviews, some respondents mentioned use of force e.g. having a weapon and pinning them down with their body weight, being beaten or threatening to physically harm them, taking advantage of them when they were either too drunk or passed out.

RE 2: *"………After partying with friends I passed out and woke up in a hotel room naked ……………"*

RE 7: "*It was at night when I was coming from night church worship when a strange man approached me with a knife and threatened to harm me if I didn't follow him…………*."

Notably, majority of the assault cases were gang rape where there were more than 1 perpetrator who took turns in assaulting the survivor. Two respondents cited being verbally abused during the assault. More so, almost all respondents had unsuccessful attempts to escape. Three of the respondents reported the incident to the area administrative offices immediately after the act and all seeking medical care from the nearest health facility.

4.3 Physical Outcomes of sexual assault among survivors seeking care at the GBV clinic, KNH

The physical outcomes of sexual assault vary, manifesting as sores, bruises, vaginal discharge muscle aches, headaches, pregnancies, sexually transmitted infections or even chronic physical health problems. The physical outcomes were measured using both quantitative and qualitative data using a set of questions that the respondents were to respond to. Respondents were required

to select where appropriate what they had experience post sexual assault for quantitative data, while for those who were interviewed, they were to describe anybody injury or harm and health changes they had experienced after the assault.

4.3.1 Use of Condoms/ Lubricants

From the findings, all the respondents reported perpetrator did not use condoms or lubricants at the time of assault.

4.3.2 Physical symptoms of the respondents post assault

Findings from the quantitative data, revealed that, a large percentage of the participants 79%(n=27) developed sores, bruises or pain as a result of the assault, 47%(n=16) itching, 44%(n=15) genital bleeding, 41% (n=14) had vaginal discharge, 24%(n=8) developed urinary symptoms and 18%(n=6) abdominal pain. This study also revealed 35%(n=12) of the patients had developed sexually transmitted diseases as a result, 24%(n=8) got pregnant, 15%(n=5) experienced sexual dysfunction, 6%(n=2) had pain during intercourse, 3%(n=1) developed gynecological problems, 3%(n=1) had unsafe abortion as a result of the assault.

Table 4. 3 Physical outcomes of the respondents post assault

Symptoms	Frequency %(n)	
	Yes	No
Sores, bruises or pain	79%(n=27)	21%(n=7)
Vaginal Itching	47%(n=16)	53%(n=18)
Genital bleeding	44%(n=15)	56%(n=19)

Vaginal Discharge	41%(n=14)	59%(n=20)
Sexually transmitted diseases	35%(n=12)	65%(n =22)
Urinary symptoms	24%(n=8)	76%(n=26)
Pregnancy	24%(n=8)	76%(n=26)
Abdominal pain	18%(n=6)	82%(n=28)
Sexual dysfunction	15%(n=5)	82%(n=28)
Pain during intercourse	6%(n=2)	94%(n=32)
Gynecological problems such as chronic pelvic pain	3%(n=1)	97%(n=33
Unsafe abortion	3%(n=1)	97%(n=33)

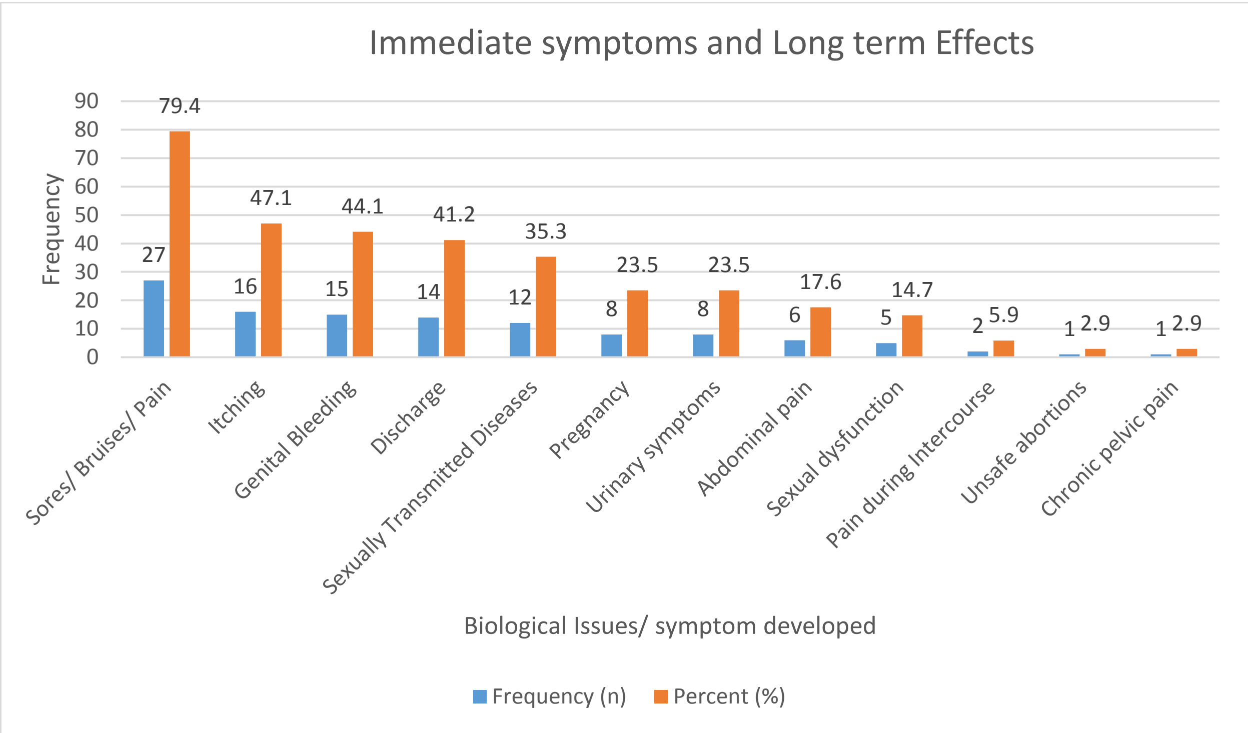


Figure 4. 9 Immediate symptoms and long term effects

The results are supported by the findings from the interview sessions where the survivors reported to have experienced symptoms including chronic fatigue, bruising, genital pain and bleeding, discharge, abortion, pregnancy, sexually transmitted diseases since the assault.

RE 2: *"………………… woke up in a hotel room naked with a lot of physical pain and vaginal bleeding"*

RE 7: "*I got pregnant but later miscarried at 4 months, I also had vaginal pain and white discharge. I felt a lot of pain while walking……….. "*

4.3.3 Number of doctor Visits in the past 2 years by the sexual assault survivors

Additionally, the findings indicate that slightly more than half (58.8%) of the participants have had follow up visits to the hospital 1 to 4 times in the past two years, and most of the participants (72.7%) had sought treatment since the assault. Table 4.3 below displays the frequency of the participants' visits to the hospital. The average number of doctor visits was 4.1 meaning that all respondents on average had visited the doctor 4 times.

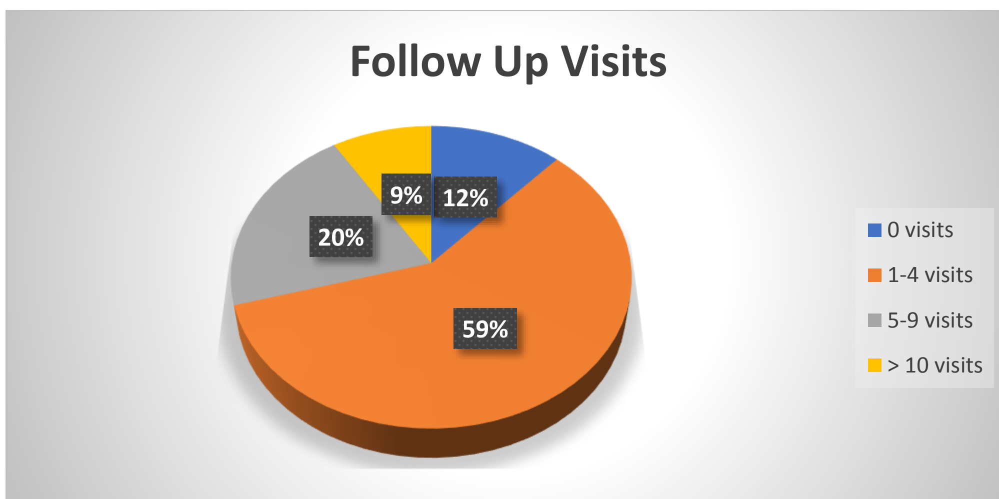


Figure 4. 10 Follow up visits of respondents post assault

4.3.4 Sought treatment post assault .

Notably, most of the participants (73%, n=24) had sought treatment since the assault while (27%, n=9) had not.

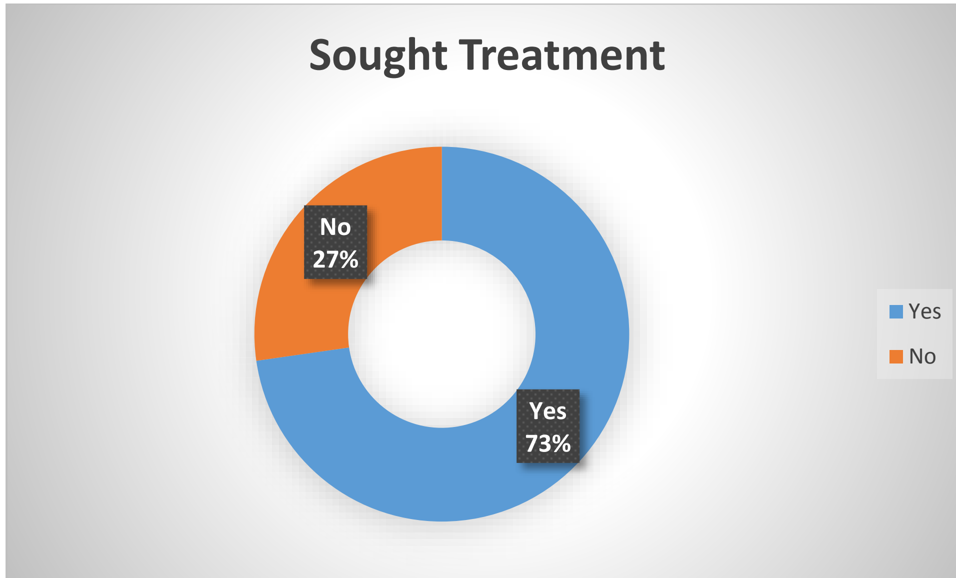


Figure 4. 11 Patients who sought immediate care

4.4 Psychological Outcomes of sexual assault among survivors seeking care at the GBV clinic, KNH

The study sought to identify the psychological outcomes of sexual assault. The outcomes of vary, manifesting as depression, suicidal thoughts, guilt, flashbacks, stigma, hopelessness, indulgence in risky and injurious behaviors, indulgence in substance or drug use and mental health problems. The outcomes were measured using both quantitative and qualitative data using a set of questions that the respondents were to respond to. Respondents were required to select where appropriate what they had experience post sexual assault for quantitative data, while for those who were

interviewed, the respondents were to describe the psychological issues that they were dealing with and their coping strategies.

The findings revealed that, 38.2%(n=13) of the respondents had been diagnosed with Post-traumatic stress disorder, 20.6%(n=7) depression, 11.8%(n=4) with guilt, 6%(n=2) sleep disturbances, 3% (n=1) General anxiety disorder and panic attacks respectively. Moreover, a large percentage (94%) of those who had received a diagnosis indicated that the diagnosis began after the assault.

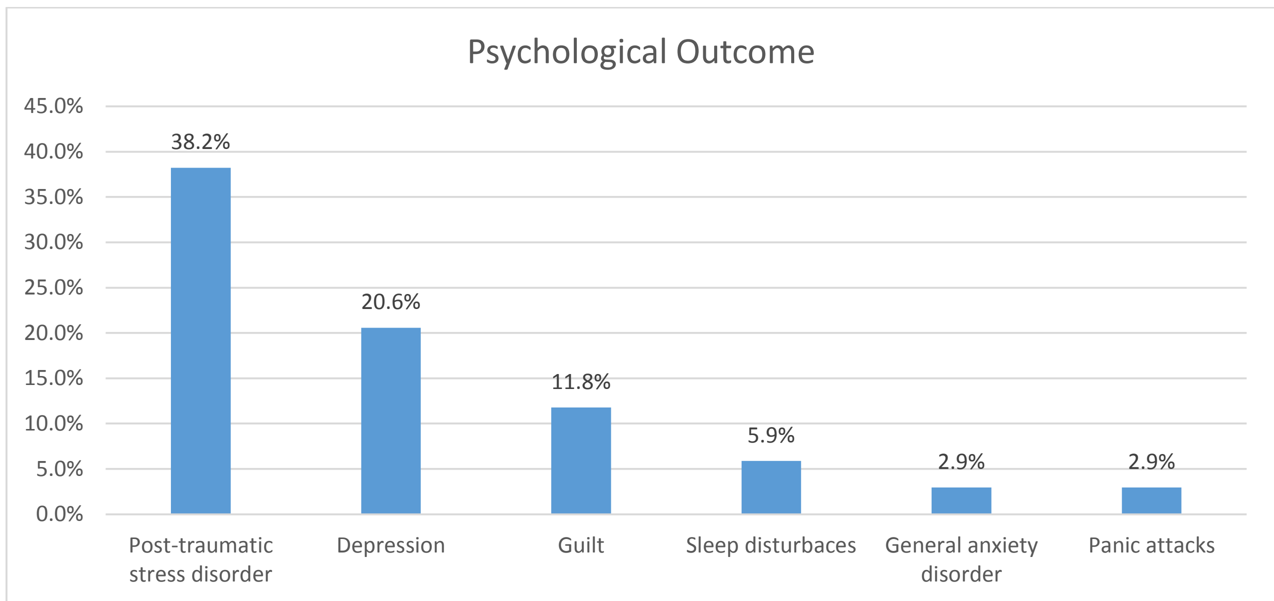


Figure 4. 12 Psychological Outcomes Experienced by the sexual assault survivors

Similar responses were also recorded in the interview sessions where the respondents highlighted having developed psychological issues such as depression, stress, fear of being harmed by the perpetrators, guilt, flashbacks. Two respondents portrayed feelings of confusion, denial and shock

from the assault that had occurred hours before. Most of the respondents reported that it has been difficult to forget the experience completely. Respondent 4 mentioned that she had suicidal thoughts. Respondent 6 for instance showed symptoms of trauma- related guilt.

RE 6: "… *I regret accepting the free ride. I will never accept free rides from strangers again. I don't know why I even got into that car yet I've never done it before…. I have never thought such a thing could have ever happened to me…. (crying)*"

The findings indicate that few respondents (21.9%) had had suicidal thoughts as a result of the assault and from this, all mentioned that they had at some point actually done some self-injurious behavior though not intended to commit suicide. Further analysis revealed that (20.6%) of the respondents had indulged in alcohol and drug abuse and

The findings indicate that 78%(n=25) of the respondents had not considered suicide before sexual assault while 22%(n=7) had considered suicide. Of the respondents who had considered suicide, all of them indicated that they had attempted suicide after the assault.

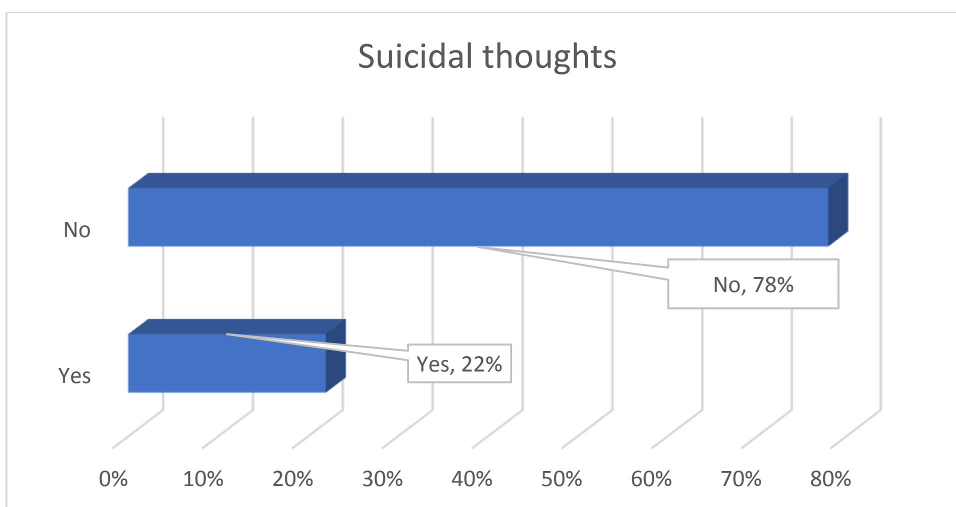


Figure 4. 13 Respondents with suicidal thoughts

Additionally, the study sought to find out the number of participants who had attempted any self-injurious behavior though not intended to commit suicide. 21%(n=7) indicated that they had actually attempted self-injurious behavior while 79%(n=26) indicated that they had not.

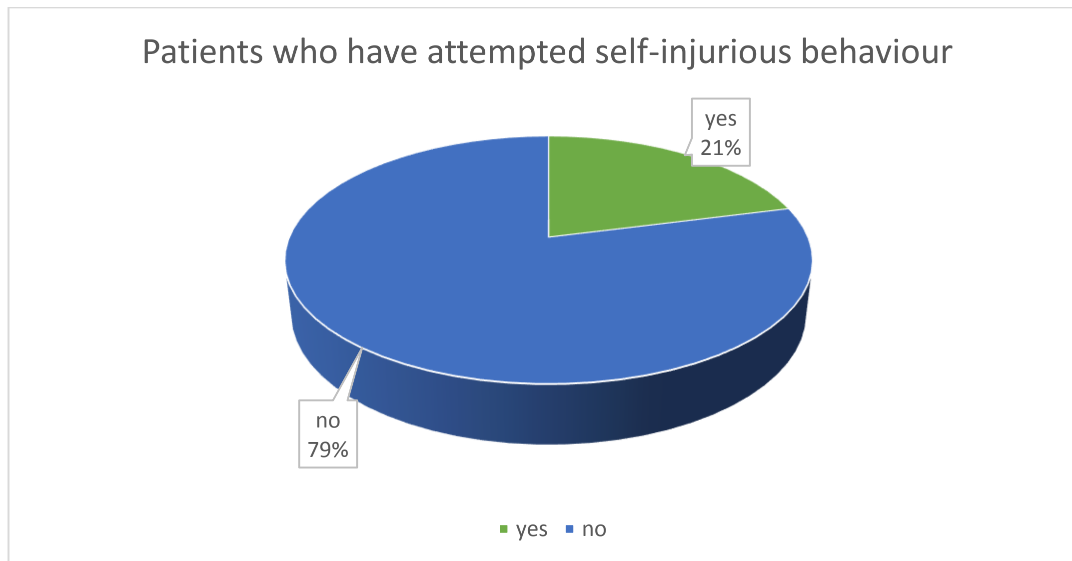


Figure 4. 14 Patients who had attempted self-injurious behaviour

4.4.3 Alcohol and Drug abuse by the sexual assault survivors

From the research findings, 21%(n=7) mentioned that they had indulged in alcohol or other drugs after the assault whereas 79%(n=26) had not. Those who had indulged in substance use gave various reasons as a result including frustration, emotional torture, guilt and flashback and to reduce depression.

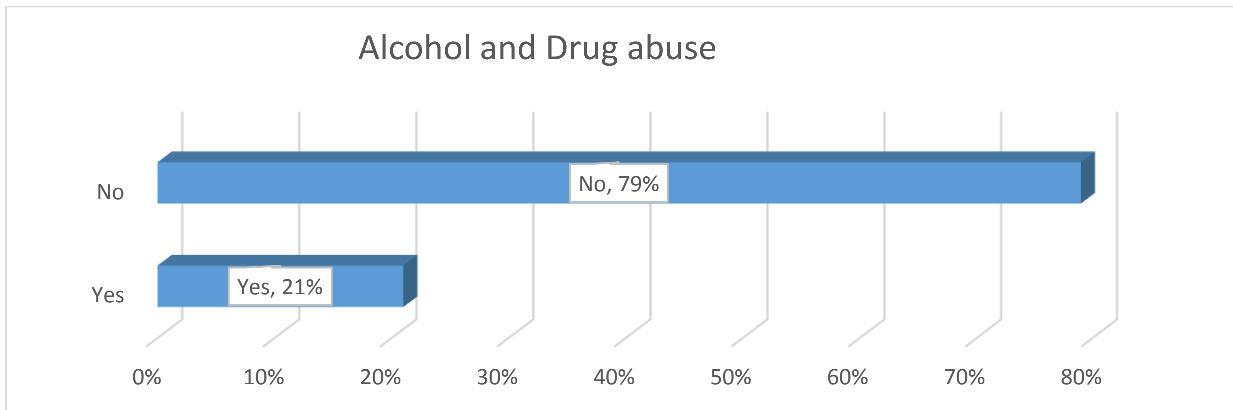


Figure 4. 15 Alcohol and Drug abuse

4.5 Sociological Outcomes of sexual assault among survivors seeking care at the GBV clinic, KNH.

The study sought to identify the social outcomes of sexual assault. The outcomes could manifest as low self-esteem, social isolation, hate toward the opposite sex, marital issues, societal blame on the individual as the cause, embarrassment an shame and social insecurity by the perpetrators. The outcomes were measured using both quantitative and qualitative data using a set of questions that the respondents were to respond to. Respondents were required to select where appropriate what they had experience post sexual assault for quantitative data, while for those who were interviewed, the respondents were to describe the presence of support system, change og view about themselves, change in social roles and social impact of the sexual assault.

The study findings revealed that, most respondents 67.6%3% (n=23) had low self-esteem as a result of the assault, 47.1% (n=16) had experienced hate towards the opposite sex and low levels of social interactions respectively, while 32.4%(n=11) experienced social stigma, 23.5% (n=8) experienced negative attitudes towards the society and 20% (n=7) being blamed as the cause of assault, .

Table 4. 4 Sociological Problems Encountered by the sexual assault survivors

Social Problem Encountered	Frequency (n)	Percent (%)
Low self esteem	23	67.6
Hate towards the opposite sex	16	47.1
Low levels of social interactions	16	47.1
Social stigma	11	32.4
Negative social attitudes	8	23.5
The blame of you as the cause	7	20.6
Isolation from the society	6	17.6

From the interview responses, it was revealed that self-blame, social stigma, isolation from the society, hate towards the opposite sex, embarrassment/ shame was among the sociological outcomes associate with the assault. An interviewee for instance explained that:

RE 1: "*I have to be strong for my children. Some of their playmates always refer to them as children of the mother who was raped. My neighbors also point fingers at me whispering whenever they see me……. (cries)*"

Many research participants of the questionnaire 87.9%(n=29) indicated that they had sought help from the counsellor. The findings are shown in figure 4.4. Further analysis showed that of the survivors who were married, most of them 23.1%(n=3) had been separated as a result of the assault, and one respondent gave "insecurities" as the cause of separation.

Another respondent from the interview highlighted she can no longer walk around the estate because of insecurity and threats from the perpetrators.

RE 10: *(….. I fear getting out of the house because of people who usually come looking for me even at night. I even don't know who they are, they are usually sent by the people who raped me…… I have to leave the house with someone, I can't go alone…..)*

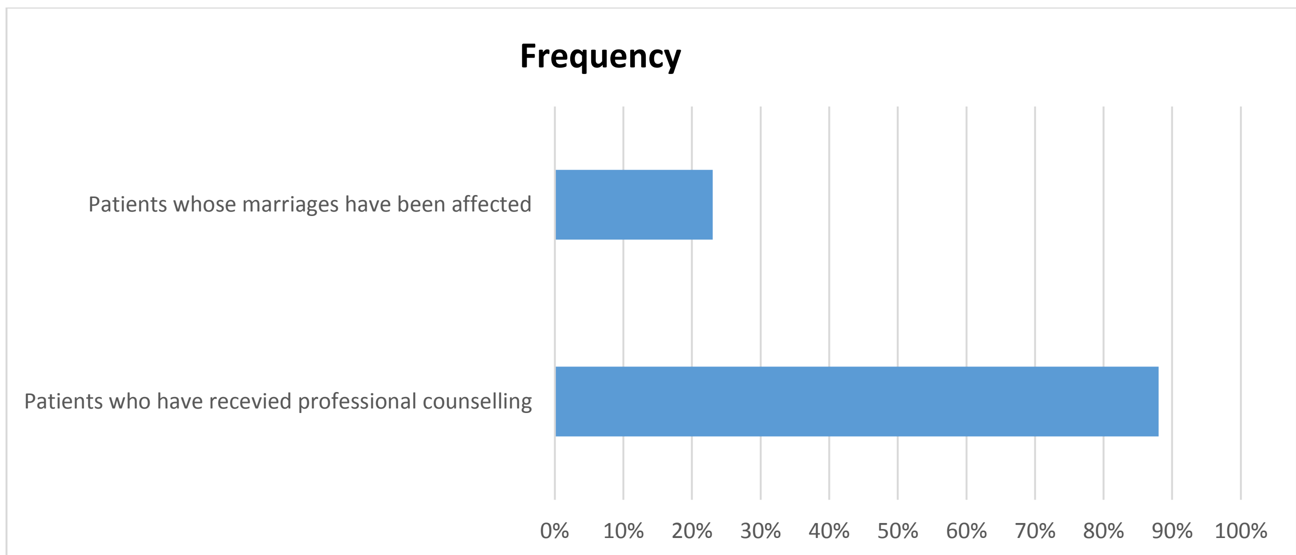


Figure 4. 16 Received Professional counseling after the assault

CHAPTER 5: DISCUSSION

5.1 Introduction

This chapter presents the summary of key data findings made from the study. The study sought to determine the biological, psychological and social outcomes of sexual assault among survivors seeking care at the GBV clinic at Kenyatta National Hospital. Similarly, this is well documented

by Nakijoba (2014), who's study revealed that the outcomes of sexual assault are enormous and include physical, psychological, legal or economic.

5.2 Discussion

5.2.1. Demographic Characteristics

The Mean age of the respondents' age was 25.8years. Moreover, slightly more than a third of the respondents were below 18 years when they were sexually assaulted. These findings correspond to study done among 3,000 youth aged between 24-30 years, that indicated 1 in 3 girls experienced sexual assault. This explains why (35.3%) of the respondents were aged between 19 and 28 and almost half of the participants being students. Child sexual abuse is evident here and compares to WHO (2017) that point out approximately 1 billion children aged 2-17 years experienced sexual violence that could either be physical, emotional or sexual

Results from this study show that, majority of the resided within Nairobi with majority from Kibera, while the rest of the respondents each came from Kiambu, Kitale, Kitengela and Kitui. Past studies have found strong association between violence experience and poverty at the household and community levels, a major characteristic of the urban informal settlements (McAra and McVie, 2016: Dubow et al., 2016).

Previous study by KDHS, revealed that sexual abuse is increasingly being caused by the people the survivors call girlfriend or boyfriend. Similarly, findings from this study indicate that half of the respondents knew their perpetrator while the other half were assaulted by strangers. Of the respondents who knew their perpetrators, majority identified them as either their family or friend.

WHO (2015), had also indicated that between 16-59% of women from Africa had been assaulted sexually by an intimate partner. Females can also be perpetrators. It seems possible that relatives choose victims that cannot, or will not, report the assaults or be able to get away, resulting in serial opportunities for sexual assault. This could also be explained by the study's' findings of majority of the respondents being from the informal settlements that is usually overcrowded, living with relatives in a small house or parents leaving the children alone behind as they go to work.

Majority of the respondents in this study were female. Similarly, *Wangu Kanja Foundation* (2016), had also observed that more than 32% of the female population experienced a case of sexual violence before 18 years of age. This is an indication that most perpetrators target females because of their vulnerability. These findings also correspond to a study done in the US by Smith et.al (2018) that found that 1 in 14 men were made to penetrate someone else at some point in their lifetime compared to 1 in 5 women. This can be attributed to the societal's expectations and will therefore be thought to be weak, vulnerable, unable to protect themselves and in need of help or assistance. These attributes conflict with many males' definitions of what it means to be a 'strong' man in contemporary society. This could also explain why according to the study findings; few men seek care immediately after the assault or years later seeking for psychological care.

5.2.2 Physical Outcomes of SA among survivors seeking care at the GBV clinic, KNH.

Majority of the respondents mentioned to have developed (79.4%) developed sores, bruises or pain, (47.1%) itching, (44.1%) genital bleeding, (41.2%) vaginal discharge, (35.3%) sexually transmitted disease. Most of them also had experienced, (23.5%) developed urinary symptoms and pregnancy respectively (17.6%) abdominal pain, (14.7%) sexual dysfunction, (5.9%) pain during

intercourse, (2.9%) unsafe abortion and chronic pelvic pain. This is similar to findings by (Nakijoba, 2017) who found that complications such as pelvic pain, sexual dysfunction, difficulties during pregnancy and insecure abortions have been associated with sexual assault that could lead to miscarriage and low birth-weight babies. Gisladottir et al., (2016), also noted in a study they did that, women who had been sexually assaulted in their lifetime, were at high risk pregnancies and difficulties during delivery.

This study reaveled that participants mentioned that the perpetrator did not use condom/ lubricant during the assault. These findings are consistent with earlier studies that, women suffering from violence are in a less position to make a choice on use of contraceptive such as condom (Basile et al., 2016; WHO, 2015). As indicated by Lawn and Kerber (2016) among high school students, indicated that 9% of them, reported not using contraceptives in their previous sexual contact. This could be attributed to the fact that the survivors had been coerced into the act and have usually not planned to be sexually assaulted. This could also be explained by the study findings that most of the respondents are usually gang raped, use of force such as a weapon or pinning them down with their body weight, being beaten or threatening to physically harm them, taking advantage of them while they were either too drunk or had passed out.

5.2.3 Psychological Outcomes of Sexual Assault among survivors seeking care at the Gender Based Clinic, KNH.

The study clearly revealed a number of psychological outcomes following sexual assault. A large number of survivors were diagnosed with Post-traumatic stress disorder, depression and guilt. Other symptoms included sleep disturbances, general anxiety disorder and panic attacks. This

compares to Peter-Hagene and Ullman (2018), who listed Post-traumatic stress disorder and depression as outcomes characterized by feelings of hopelessness and loss of interest in most activities during such times. These are some of the major outcomes on women's mental state according to study by Nakijoba, 2017 and Mugawe & Powell, 2010.

The study also revealed that most respondents had considered committing suicide and that they had actually attempted self-injurious behaviors to commit suicide. This concurs with a study done by (Brabamt et al., 2014) that mentioned that suicidal ideas occur alongside depression and PTSD. Studies also show that depression post sexual assault mediates suicide (Sigfusdottir et al., 2013). In agreement to this, Bradley et al. (2017) established that severe depression post-assault is a leading cause of suicide among survivors.

According to this study, most respondents had indulged in alcohol or other drugs as a result and reasons for doing that included frustration, emotional torture, guilt and flashback and to reduce depression. Similarly, (McMahon et al., 2015) found out that sexual assault results in disturbing experiences that could cause several physical and psychological negative consequences for instance depression and PTSD.

5.2.4 Sociological Outcomes of SA among survivors seeking care at the GBV clinic, KNH

This study's findings revealed that a significant number or the survivors reported changing their social behaviors after the assault. Majority of the respondents mentioned low self-esteem, hate towards the opposite sex and low levels of social interactions as the social outcomes post assault. Most of them also mentioned social stigma, negative social attitudes, blame as the cause and isolation from the society. The blame of the survivor as the cause of the assault compares to (Rich,

2014) who mentioned that some comments from the community, are directed to the women especially in a way to suggest that their actions could have led to the assault. Additionally, isolating one's self from others is correlated with fear of non-disclosure because of the potential risk of being blamed, stigma and poor community relations (Ullman, 2010). Social stigma in other cases was directed to family members of the respondent. Similarly, survivors of sexual assault are likely prone to stigmatization as a result of the feministic characteristics of the society (Robins, 2011).

Survivors who were married, most of them (23.1%) reported to have been separated as a result of the assault, and one respondent gave "insecurities" as the cause of separation. This could be as a result of wide range of negative outcomes, including low self-esteem, fear, nightmares, and physical health problems experienced by the survivors.

5.3 Conclusions

The overall findings of this study confirms the enormous biopsychosocial outcomes that sexual assault survivors encounter post sexual assault act. Sexual assault affects female more than male, youth between age of between 16 and 20years and from the vulnerable adolescent population in the slum areas. Based on this study's findings, sexual assault:

i) Results in vast physical outcomes such as sores, bruises, pregnancies, sexually transmitted infections. It clearly outlines the need for attention on the physical outcomes of sexual assault that significantly affects the reproductive/sexual health of the survivors

ii) Psychological outcomes affect the mental health wellbeing of an individual that could render them to indulge in risky and injurious behaviors, commit suicide, stigma, develop mental health illnesses or indulge in substance use

iii) Social outcomes have a huge impact on survivor's social relations, sexuality, getting stuck in the past or societal expectations specially for men that hugely hinders them speaking out. The survivors tend to develop low self-esteem, hate towards the opposite sex, social isolation leading to low levels of social interactions, negative social attitudes and blame as the cause.

5.4 Recommendations

Based on these findings, the researcher recommends the following to the following key stakeholders:

To Practice:

- That health workers, mental health team and social support providers, need to identify those survivors of sexual assault and have a follow up plan in form of biological, psychological and social outcomes. It also points out the need for healthcare workers to undergo sensitivity training when dealing with sexually assaulted persons.
- Interventions by the health personnel need to be established clearly ranging from treating the victims, physical examination, counselling, psycho-social support, dispensing post exposure prophylaxis (PEP), emergency contraceptive pills (ECP), sexually transmitted Infections (STI) prevention, information dissemination, facilitate acquisition of P3 forms, referrals, and linkages with relevant authorities for further assistance

Policies:

- Policies on advancement of medical-legal response and interventions need to be developed to address the enormous biopsychosocial problems and may require long-term interventions on sexual violence.

Public education:

- Strengthened sexual violence prevention programs at the community level by the county health management team, as well as expanded sexual violence screening and provision of post- sexual violence care, are critically needed to reduce the high rates of sexual violence and related poor biological, social and mental health outcomes sexual assault.
- The Ministry of Health needs to device strategies at the county level on informs the public about their services through posters, media, county health forums, sensitization campaigns and health education at the outpatient bay on predisposing factors and risk factors of sexual violence, and how to avert the enormous outcomes of sexual violence

Research:

- This data therefore, serves as a baseline for further studies that will focus on the need for follow up management of patients post the sexual assault
- A study focusing on specifically survivors who had been sexually assaulted at a younger age of less than 16 years would be recommended so as to determine the long-term mental effects of sexual assault.

5.4 Strengths

1. The use in-depth interviews as a data collection tool allowed better explorations of the survivors' feelings.

5.5 Limitations

1. The corona pandemic affected greatly the number of patients seeking care at the clinic. The government has huge restrictions making it hard for the survivors to seek services
2. The nature of the health problem poses a huge challenge to the survivors especially stigma from the society and fear of being victimized hence few survivors seek care.
3. Participants might over-report or under-report the experience of sexual violence hence the data may be susceptible to a number of biases, such as social desirability and recall biasness.

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Appendices

Appendix 1: PARTICIPANT INFORMATION AND INFORMED CONSENT FORM

Introduction:

This study is a Master's thesis by Deborah C Kosgei a mental health and psychiatry nursing student at University of Nairobi under the supervision of Dr. Irene G. Mageto and Dr. Mirriam C.A. Wagoro.

The purpose of this information is to provide you with details pertaining the research and what you will be asked to do. Please take time to read the following information and seek clarification where necessary.

Background and Objective: The purpose of this study is to 'Determine the Biopsychosocial outcomes associated with Sexual Assault among Survivors seeking care at Gender-Based Clinic

Significance of the study: The findings will be of great importance to every individual involved in the identification and management of sexual assault outcomes.

Participation: Participation of this study will involve answering questions that will be asked through a semi-structured questionnaire and interview. one will participate in one only. Its I entirely voluntary and refusal to participate doesn't attract any negative consequence.

Benefits: No monetary benefits will be given for participating in the study. Although research findings will be used to make recommendations for best practice and will offer insights into the experiences.

Risks: The study poses no risk nor harm. You are allowed to skip any questions that you may feel uncomfortable

Confidentiality: information gathered from the study will be treated with highest confidentiality. Anonymity of participants will be ensured by serializing the structured questionnaires.

Conflict of interest: The researcher and supervisors confirm that there's no conflict of interest among them.

Respondent's Declaration

I have been fully informed about the nature of the study, I know the benefits, and understand that there are no risks involved. I hereby give my consent to participate in this study.

Signature of participant …………………. Date ………………………….

Researcher's Declaration

I have fully disclosed all the relevant information concerning this study to the study respondent.

Signature of researcher …………………. Date …………………………

Kosgei Deborah Cherop

H56/114672018

MOBILE NUMBER: 0728740142

OR

Secretary,

University of Nairobi- Kenyatta National Hospital Ethics and Research Committee

P.O BOX 19676 Code 00202

Tel: (+254-020)-2726300 Ext 44355

Appendix 2: Questionnaire

Questionnaire

The purpose of this questionnaire is to obtain a comprehensive understanding of your life experience, background, and medical health issues on the Sexual Assault act. Responding to these questions as completely as you can help both of us gain an understanding of the problems for which you are seeking help and of important events in your life. Some of the questions deal with biological experiences, psychological and social, and being the victim of sexual assault. These questions might make you feel uncomfortable. You may skip any question you do not wish to answer. Your responses will remain strictly confidential and will become part of your medical record.

Thank you

PART A

Bio-demographic data

Age:

Gender:

Home address:

Occupation:

Cell phone number:

Marital status:

General concerns

1. How old were you when you were assaulted? __________
2. Is the person who committed the act known to you?
   Yes………………………. no……………………………

If yes specify

…………………………………………

3. How long ago was your assault? _________

4. Have you been assaulted more than one time? Yes _____ No ______

   If yes specify how many times?

5. How did the offender assault you/ how was it committed? (tick where appropriate)
   a) Physical (inappropriate touching of body parts, vaginal/anal penetration, unwanted kissing …………………….
   b) Verbal (sexual jokes, remarks about body parts, asking for sexual intercourse) …………………………
   c) forced oral contact ………………………

PART B

Biological Outcomes

6. Did the perpetrator use condoms and lubricant? Yes………………. No…………………
7. what symptoms have you developed since the assault? (tick where appropriate)

   ………………….. genital bleeding

   ………………….. discharge

   ………………….. itching

   ………………….. sores, bruises or pain

   …………………… urinary symptoms

   …………………… anal pain or bleeding

   …………………… abdominal pain

8. What biological issues have developed since the assault?
   a) Sexually transmitted diseases …………
   b) Pregnancy …………
   c) Pain during sex intercourse …………
   d) gynecological problems such as chronic pelvic pain …………
   e) unsafe abortion …………

f) sexual dysfunction …………

9. Number of visits to the health care provider during the past two years………………

10. Did you or have you sought treatment?

    Yes………………. No…………………

PART C

Psychological Outcomes

11. Have you received a mental health diagnosis from a health care provider?

    Yes……… No…………….

    If yes tick the box with any mental health diagnosis you have been given:

    Depression ………

    Bipolar disorder………

    Schizophrenia ………..

    General anxiety disorder ………

    Post-traumatic stress disorder……….

    Panic attacks…………………

    Guilt ……………………….

    Sleep disturbances …………………………(specify)

    List any others: …………………………………………………………………………

12. When did your mental health disorder began before …………. after ………… the sexual assault.

13. Have you ever considered suicide? Yes …………… No ………….

    If yes did you attempt suicide before…………. or after …………. the assault?

14. Have you ever cut or done other self-injurious behavior though not intended to commit suicide due to anger? Yes………… No……………

15. Have you indulged yourself in alcohol and drug use after the assault?

    Yes………… No……………

    If yes, why ………………………………………………………………

PART D

Sociological Outcomes

16. What social problems have you encountered after the assault? (tick where appropriate)

    Social stigma ……………

    Low self-esteem ……………

    Isolation from society ……………

    Negative social attitudes ……………

    Hate towards the opposite sex ………….

    Low levels of social interaction ……………

    The blame of you as the cause ……………

    List any others: ………………………………………………………………………

17. Have you sought help from a counselor?

    Yes………… No……………

18. If married, are you still together with your partner?

    Yes………… No……………

    If no, what was the cause of your separation?

    Specify ……………………………………………………………………………..

Appendix 3: Interview guide

Section A; description of sexual assault

I'm interested in what happened during and after the sexual assault act. In other words, I want to understand your experience you went through immediately after and during the recovery period and how you coped.

How did the perpetrator approach you

What happened before the assault

What happened during the assault

What you both did and said after the assault

……………………………………………………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

Section B: biopsychosocial outcomes

Physiologic concept: How has your health been?

Describe anybody injury or harm you experienced after.

How has this changed since the assault?

- what is your feeling about this?

Social concept How do you view yourself?

How has this changed?

How has your role as a partner/friend/employee been affected by the assault?

Describe your support system.

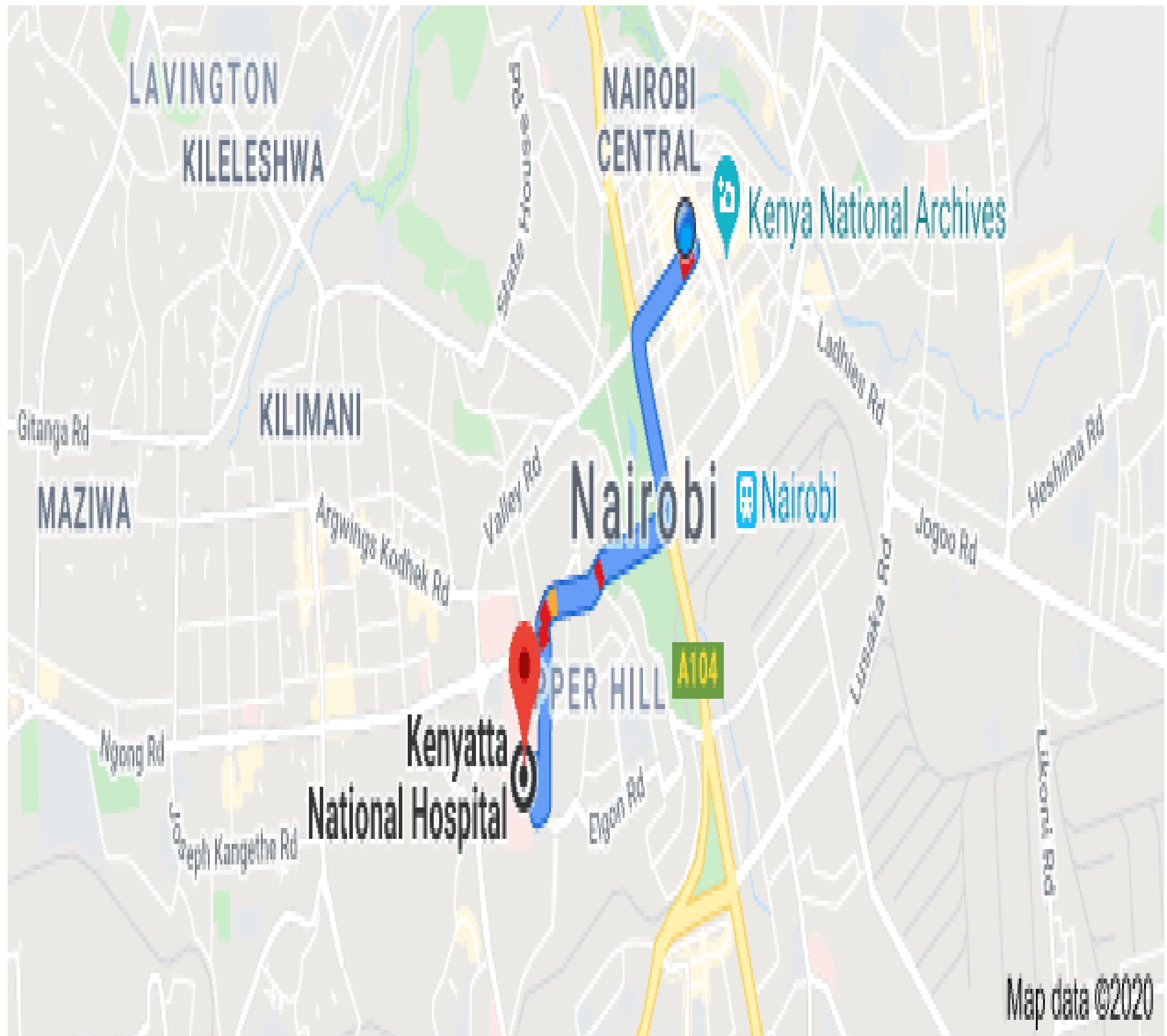
-How has this changed since the assault?

Psychological: How have you adapted (changed) since the assault?

What psychological issues have you developed?

How have you been coping?

Appendix 4: Directional Map of KNH



Appendix 5: Photo of KNH

Appendix 6: Approval from Ethics

UNIVERSITY OF NAIROBI
COLLEGE OF HEALTH SCIENCES
P O BOX 19676 Code 00202
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Tel:(254-020) 2726300 Ext 44355

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Email: uonknh_erc@uonbi.ac.ke
Website: http://www.erc.uonbi.ac.ke
Facebook: https://www.facebook.com/uonknh.erc
Twitter: @UONKNH_ERC https://twitter.com/UONKNH_ERC

KENYATTA NATIONAL HOSPITAL
P O BOX 20723 Code 00202
Tel: 726300-9
Fax: 725272
Telegrams: MEDSUP, Nairobi

Ref: KNH-ERC/A/265

17th August 2020

Deborah Kosgei
Reg. No.H56/11467/ 2018
School of Nursing Sciences
College of Health Sciences
University of Nairobi

Dear Deborah

RESEARCH PROPOSAL – DETERMINING THE BIO-PSYCHOSOCIAL OUTCOMES ASSOCIATED WITH SEXUAL ASSAULT AMONG SURVIVORS SEEKING CARE AT GENDER-BASED VIOLENCE CLINIC OF KENYATTA NATIONAL HOSPITAL (P141/02/2020)

This is to inform you that the KNH- UoN Ethics & Research Committee (KNH- UoN ERC) has reviewed and **approved** your above research proposal. The approval period is 17th August 2020 – 16th August 2021.

This approval is subject to compliance with the following requirements:

a. Only approved documents (informed consents, study instruments, advertising materials etc) will be used.
b. All changes (amendments, deviations, violations etc.) are submitted for review and approval by KNH-UoN ERC before implementation.
c. Death and life threatening problems and serious adverse events (SAEs) or unexpected adverse events whether related or unrelated to the study must be reported to the KNH-UoN ERC within 72 hours of notification.
d. Any changes, anticipated or otherwise that may increase the risks or affect safety or welfare of study participants and others or affect the integrity of the research must be reported to KNH- UoN ERC within 72 hours.
e. Clearance for export of biological specimens must be obtained from KNH- UoN ERC for each batch of shipment.
f. Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. (*Attach a comprehensive progress report to support the renewal*).
g. Submission of an *executive summary* report within 90 days upon completion of the study.
This information will form part of the data base that will be consulted in future when processing related research studies so as to minimize chances of study duplication and/ or plagiarism.

Protect to discover

Appendix 7: Approval from KNH

KNH/R&P/FORM/01

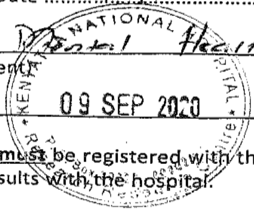
KENYATTA NATIONAL HOSPITAL
P.O. Box 20723-00202 Nairobi

Tel.: 2726300/2726450/2726565
Research & Programs: Ext. 44705
Fax: 2725272
Email: knhresearch@gmail.com

Study Registration Certificate

1. Name of the Principal Investigator/Researcher
   DEBORAH CHEROP KOSGEI
2. Email address: debzkosgei@gmail.com Tel No. 0723740142
3. Contact person (if different from PI) Shadrack Ruto
4. Email address: .... Tel No. 0720636319
5. Study Title
   Determining the Biopsychosocial Outcomes associated with Sexual assault among Survivors Seeking Care at GBV clinic, KNH
6. Department where the study will be conducted Mental Health Unit
   (Please attach copy of Abstract)
7. Endorsed by Research Coordinator of the KNH Department where the study will be conducted.
   Name: DR Marko Signature .... Date 08/09/2020
8. Endorsed by KNH Head of Department where study will be conducted.
   Name: Dr Ian Kanyanya Signature .... Date 09/09/2020
9. KNH UoN Ethics Research Committee approved study number ________
   (Please attach copy of ERC approval)
10. I DEBORAH CHEROP KOSGEI commit to submit a report of my study findings to the Department where the study will be conducted and to the Department of Medical Research.

    Signature........ Date 9/9/2020
11. Study Registration number (Dept/Number/Year) Mental Health /12 /2020
    (To be completed by Medical Research Department)
12. Research and Program Stamp ________



All studies conducted at Kenyatta National Hospital **must** be registered with the Department of Medical Research and investigators **must commit** to share results with the hospital.

Appendix 8: Turn It In Similarity Index

Determining the Bio-psychosocial Outcomes Associated with Sexual Assault among Survivors Seeking Care at Gender-Based Violence Clinic of Kenyatta National Hospital

ORIGINALITY REPORT

10%	5%	2%	8%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

#	Source	Type	%
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4	Submitted to Strathmore University	Student Paper	<1%
5	www.gvrc.or.ke	Internet Source	<1%
6	www.biomedcentral.com	Internet Source	<1%
7	Submitted to People's Open Access Initiative	Student Paper	<1%
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