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Original Article

The Symptoms of Depression as a Mental Health Outcome among Female Survivors of Intimate Partner Violence in Nairobi County, Kenya

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Intimate partner violence (IPV) is a problem faced across the world that impacts varied survivors differently and can affect mental health. The study sought to explore the prevalence of and relationship between the symptoms of depression and IPV among female survivors in Nairobi. A descriptive correlational research design was used to survey 204 female survivors of IPV, aged between 18 and 40 years. The study locations were centers that provide care for survivors of IPV. A sociodemographic questionnaire, the Beck Depression Inventory-II, and the Composite Abuse Scale Revised – Short form (CASR) were used to collect quantitative data. Data was analyzed using descriptive statistics and inferential analysis using the Statistical Package for Social Sciences (SPSS) version 26. The odds ratio and t-test were both used to process the data. The results showed that the prevalence of depression among female IPV survivors stands at 68.6% for moderate to severe symptoms of depression. There is also a statistical association between psychological/ emotional abuse and depression (O.R. = 1.82, 95% CI 0.99; 3.33, $p = 0.053$), controlling behavior and depression (O.R. = 1.89, 95% CI 1.03; 3.47, $p = 0.041$) and all forms of abuse and depression (O.R. = 3.10, 95% C.I. 1.03; 9.36, $p = 0.044$). However, there was no significant statistical association between sexual abuse and depression, physical violence and depression, and between economic abuse and depression. There was a positive correlation between CAS and BDI ($r=0.431$, $p<0.001$). Thus, female survivors who experience psychological/ emotional abuse are subjected to controlling behaviors as well as those who encounter all forms of violence are more prone to depression as compared to those who experience other forms of IPV.

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INTRODUCTION

Intimate Partner Violence is a known aggression or abuse by a perpetrator that takes place in an intimate or romantic relationship. An intimate partner can be a dating partner or a former or current spouse. According to the Centers for Disease Control and Prevention (2022), IPV varies in severity, type, and how it occurs. The episodes may be single, severe, or chronic, with a lingering impact. The World Health Organization (2022) defines IPV as "behavior by an intimate partner or ex-partner that causes physical, sexual or psychological harm, including physical aggression, sexual coercion, and psychological abuse and controlling behaviors." IPV can take the form of psychological aggression, stalking, sexual violence, and physical violence (World Health Organization, 2022). It is also a perpetrator's strategy to maintain power and control within the relationship (McColgan et al., 2010).

Psychological aggression involves the use of non-verbal and verbal communication to harm the partner emotionally or mentally, including trying to exert control on the other partner in the relationship. In stalking, there is a pattern of unwanted and repeated contact and attention by the partner. It causes the partner to have concern or fear about their safety and the safety of those who are close to them (CDC, 2022). Sexual violence takes place when a partner attempts or forces their partner to become involved in acts such as sexual touching and

sexual acts without their consent (CDC, 2022). In physical violence, one of the partners attempts or hurts the other by using physical force, which can be in the form of kicking and hitting (Karakurt et al., 2014). Economic abuse has since been added as a form of abuse. Johnson et al. (2022) define economic abuse as behaviors that influence a victim's ability to acquire resources for themselves, make use of the resources, or maintain these resources. The perpetrator intends to prevent them from becoming financially independent and economically secure. All forms of abuse have some level of control in them, but controlling behaviors are a form of abuse on their own. Controlling behaviors are experienced when a perpetrator makes a conscious effort to isolate the survivor from their family of origin and their friends, restrict their movement, and restrict their access to jobs, medical care, education, or financial resources (Baskan & Alkan, 2023). These acts place an individual in a dependent role and deny them an opportunity to rebel, resist, or escape, especially for the perpetrator's benefit. Eventually, all these acts will likely alter an individual's thoughts, feelings, behaviors, and physical well-being.

Inevitable critical consequences are associated with IPV, and they affect the mental and physical health of the woman indirectly and directly. Chronic health issues are known to come about when someone is subjected to constant stress (Park, 2015). Even after the IPV has stopped, it can be related to the mental

health of the woman. There is evidence to suggest that women who are victims of IPV experience mental health outcomes like high rates of phobias, anxiety, and depression as compared to women who have never experienced IPV (Park, 2015). High prevalence rates associated with attempted suicide, suicidal ideations, and emotional distress are also reported. These outcomes are related to an individual's mental health.

LITERATURE REVIEW

Depression is a mental health disorder that is synonymous with clinical depression or major depressive disorder (MDD). According to the DSM-5, to be diagnosed with depression, an individual would have to have at least five symptoms for two weeks, and one of the symptoms must be lethargy or having a depressed mood. The symptoms of depression include experiencing persistent sadness on most days or every day, hopelessness, lethargy, or loss of interest in previously enjoyed activities on most days or every day, increased or reduced appetite leading to weight gain or loss, a reduction of physical activity, and daily fatigue. Negative sense of self-worth or guilt, difficulty with concentration and decision-making almost daily, and recurrent negative thoughts about self-harm or death. These symptoms would need to impact one's functioning socially and occupationally and cause distress for them to be regarded as symptoms of depression (American Psychiatric Association, 2013).

Lovestad et al. (2017) investigated the association between depressive symptoms and IPV among the female population utilizing a cross-sectional design. In the study conducted in Sweden, the authors randomly selected 1006 women and 1009 men aged between 18 and 65 to participate. Of all selected respondents, 624 women and 458 men returned the questionnaires. The study established that there are critical mental health problems associated with IPV in the form of depressive symptoms and depression among women. At the more specific level, the results were as follows: for those women who had

been subjected to controlling behaviors, they reported having two out of five symptoms in comparison to those who had not been subjected to these controlling behaviors. Those who had experienced physical and sexual abuse also reported having symptoms of depression in comparison to those who had not. In their study, they concluded that IPV in the form of controlling behaviors tends to affect women more than physical and sexual violence. Therefore, if experienced even without the other two forms of IPV, it can be linked to depressive symptoms. These findings have been confirmed by those from other studies (Lovestad et al., 2017) as well as testify to the fact that women are known to suffer twice as much from depression as their male counterparts, and that makes women who have experienced IPV more vulnerable (Western, 2013).

The literature reviewed by Okafor et al. (2021) found that sexual abuse and other childhood traumatic experiences predispose women to IPV later in life, as well as depressive symptoms in adulthood. Other significant factors that are associated with depressive symptoms among those who are victims of IPV include witnessing IPV that takes place in an inter-parental form, being unemployed, being single, young age, and low levels of social support (Lovestad et al., 2017). Consistent with the findings of Johnson et al. (2014), Devries et al. (2013) established that being exposed to sexual and physical violence, including controlling behavior by a perpetrator of IPV, can make one develop depression symptoms. Women who have been exposed to IPV in the form of controlling behavior without any sexual or physical violence in 12 months are likely to report symptoms associated with depression when compared to those who have not been exposed to such (Lovestad et al., 2017). Researchers have varied opinions on what form of violence has the most significant impact on mental health in varied studies.

In Karachi, Pakistan, IPV is a family and private affair. Many of the women in this nation who have,

at some point in their lives, tried committing suicide were reported to be married and had experienced IPV (Ali et al., 2013). Sources of conflict came about from the women's relationships with their in-laws and their husbands. Emotional, physical, and verbal abuse were the leading forms of IPV experienced in the form of not being able to make any minor decisions, continued depression, emotional trauma, and intimidation. The prevalence of IPV among women is estimated to be as high as almost 70 percent. Women also experience IPV when they are pregnant, and this is usually a consequence of them not wanting to engage in sex at the time. The men seem to be controlled by their values regarding male dominance over women (Haqqi et al., 2010).

A previous study carried out among female Latina survivors of IPV found that depression was not continuously associated with IPV (Kelly, 2010). Another study done by Nathanson et al. (2012) also found a high prevalence of depression among female Caucasian survivors in comparison to African American survivors. Psychological abuse is strongly linked to depression and is perceived as more harmful than physical abuse. A study done with low-income pregnant female survivors also found a strong link between psychological abuse and depression (Kastello et al. et al., 2016). Most such global studies confirm that there is a relationship between IPV and depression.

Most recently, Sangeeta and Lori (2021) sought to find the bi-directional relationship between depression and IPV among men and women living in the rural parts of Rwanda. Depression symptoms were found to play a role in the elevation of risk for IPV perpetration and victimization. Most of the women who participated in the study experienced sexual, physical, and emotionally related IPV, and this led to depression being experienced. The men reported depression when they perpetrated sexual and physical IPV, and this was within 24 months. Worth mentioning is that those who have experienced IPV will most likely also experience

depression in the future. The researchers recommended that to prevent the occurrence of IPV approaches that are trauma-informed should be implemented. Access to affordable and proximate mental health should also be available to improve the mental health of men and women and to reduce IPV as well.

As a mental health outcome, depression was associated with IPV in the study by Winter et al. (2020), carried out in Mathare Valley in Nairobi, Kenya. The study focused on the correlation between IPV and physical and mental health but heavily focused on physical health, especially gynecological health issues. From the results, recent experiences of psychological abuse were linked to MDD, suicidality, alcohol use, and tobacco use. Sexual abuse was linked to psychosocial distress. Physical abuse was linked to MDD and suicidality. Winter et al. (2020) found that the adverse mental health outcomes linked to IPV were substance use, major depressive disorder, and suicidality. In conclusion, Winter et al. (2020) study showed that women endure high rates of IPV and suffer from physical and mental health conditions.

The studies that have been mentioned in the literature review offer much-needed insight into the association between IPV and depression. It is right to claim that experiencing IPV will most likely cause an individual to develop depression or even depressive symptoms such as a lack of motivation and interest in doing things. The victims of IPV who have other comorbid disorders, such as substance use and eating disorders, will also be likely to become depressed. Depression is a leading mental health outcome that, if not treated appropriately and with the right interventions, will lead to suicide and, ultimately, death. The association between IPV and depression makes it known that the mental health consequences associated with IPV are indeed dire for the victims.

The objectives of this study were to establish the prevalence of and the relationship between symptoms of depression as a mental health outcome

among female survivors of different forms of IPV in Nairobi County.

METHODOLOGY

The study applied a quantitative method and descriptive correlational study design to survey the study population. The objectives and research questions of the study guided this. The study was conducted in Nairobi County, the Capital City of Kenya, which has a total of seventeen constituencies with 85 wards represented by a member of the County Assembly. These constituencies have four to six wards each. The culture and diversity in the county are rich as there are people from different ethnic groups, races, and religions who also belong to different cultures, making it a cosmopolitan county. Nairobi County presented a suitable site for the study because it hosts the largest centers that provide care to the victims of IPV. It is these centers that constituted the specific sites for the study. In all, Nairobi County is the home of many organizations and centers providing care to the victims of IPV. The four centers identified in Nairobi County included the following: Gender Violence and Recovery Centre (Nairobi Women's Hospital), Médecins Sans Frontières (MSF's Lavender House Clinic in Mathare), Kenyatta Hospital Gender Based Violence Center, and Mama Lucy Hospital. Two centers were selected out of the four: the Gender Violence Recovery Centre (GVRC) at the Nairobi Women's Hospital, whose headquarters is located at Malik Heights on the 8th floor of Ngong Road, and the Mama Lucy Kibaki Hospital in Embakasi, on Kangundo road.

The two centers selected for this study were both accessible to the respondents using both private and public transport. These facilities represented the study population regarding ethnicity, socioeconomic status, marital status, age, religion, and other relevant demographic characteristics. The two facilities also have a good reputation for ethical practices such as informed consent and maintaining privacy and confidentiality. The selected centers were easily accessible, courtesy of the researcher's

network and expertise. This helped with the data collection process by reducing challenges and barriers.

The target population for this study was females who have experienced IPV, thereby predisposing them to experiencing symptoms of depression. Purposive sampling was used to select participants for the study. Those who met the inclusion criteria were females in an intimate relationship and experienced IPV in the last twelve months, were married, single, or divorced, aged between 18 and 40, and could speak and understand English and Kiswahili. They had no physical health issues like severe chronic illnesses or cognitive issues like intellectual disabilities that would prevent them from participating in the study.

In this study, there were two levels of sampling, one for the study site and one for participants. A stratified random sampling method was utilized to select the institutions to carry out the study. This is a probability sampling method, meaning that any institution supporting survivors was guaranteed an equal chance of being selected for the study. The four centers identified that have a designated service for adult female IPV survivors were numbered one to four, and the two were selected randomly for this study. Since the participants' characteristics are unique and can be hard to reach because of their experience with IPV, the researcher chose to use purposive or judgmental sampling to select the participants. This non-probability sampling method is ideal for a population that is difficult to reach. As such, the IPV survivors who received care and support for IPV from the GVRC and Mama Lucy Kibaki Hospital, whether in the past or present, and were willing to participate in the study, were included to screen for the symptoms of depression. At the more specific level, purposive sampling allowed the researcher to get a sample with the specific target group's characteristics and willingness to participate in the study without being coerced or facilitated. The sample size allocation was determined by the number of participants

available and accessible during the study. The study sites both have many clients they support and continue to support. As a result, each center was given equal weight during the selection of participants. Diversity was also ensured by carrying out the study on different days and times and with the help of different research assistants. Purposive sampling made it possible to manage costs as well.

The centers identified for the study were approached, and an introduction was made for the management and sharing the reason for the visit at the beginning of the study. Permission and approval were sought to allow the researcher to collect data from the female IPV survivors in the centers in Nairobi County. The study relied on primary data that was collected using structured questionnaires that were effective and efficient and reduced researcher bias. The tools used included the sociodemographic questionnaire that captured the respondents' socio-demographic characteristics; the Beck Depression Inventory-II (BDI-II) was used to screen for symptoms of depression. In contrast, the Composite Abuse Scale – Short form (CASR) was used to assess the types of IPV experienced by the survivors.

The Composite Abuse Scale Revised-Short Form has 19 items. The first four items ask questions about experience with IPV. They are sufficient to allow those who have never been in an intimate relationship to opt out of the study without answering all the questions. It also has an item that asks about the female survivor experiencing fear towards her partner. Out of the remaining 15 items, three items were suggested by experts during consultation, and the other 12 items were adapted from the original version of the Composite Abuse Scale (CAS). It also uses ever-evolving literature. The CASR-SF covers three main domains, including psychological/ emotional, sexual, and physical abuse. However, it also has additional questions that screen for controlling behaviors/ harassment and economic abuse, as well as questions regarding current, recent, and lifetime

abuse frequency. The period of study assessed with the tool has been abusive over the last twelve months. The tool assesses the prevalence of IPV, and the completion time is 2 to 3 minutes. The total scores fall within the range of 0 to 75, and subscale scores can be derived to reflect the different forms of abuse (Ford-Gilboe et al., 2016). The tool is chosen because it is a brief self-report measure and is thus suitable for measuring IPV experiences among women. The tool has also been proven valid and reliable (Ford-Gilboe et al., 2016).

To measure the symptoms of depression and the severity of these symptoms among female IPV survivors in Nairobi County, the Beck Depression Inventory-II (BDI-II) was used. The BDI was developed by Dr Aaron T. Beck in 1961 as a self-reporting tool that measured the attitudes and symptoms of depression (Beck et al., 1961). It was revised in 1996 and became BDI-II. The intent was to synchronize it with the DSM-IV criteria for depression. The duration of symptoms in the BDI was one week, and the BDI-II was adjusted to two weeks, but the number of items was maintained at twenty-one (Beck et al., 1996). BDI-II helps measure depressive symptoms together with their severity and is widely used. It is a measure that has self-report features used among adults and adolescents. Furthermore, the symptoms it measures are aligned to the DSM-5 diagnostic criteria for major depressive disorder. The items are all summed up to create the total score; the high scores indicate high depression levels. In research practices, the tool is used in the clinical areas of practice (Garcia-Batista et al., 2018). In scoring the BDI, the results are interpreted as follows: a total score of 0–13 falls within the minimal depression range, 14–19 is mild depression, 20–28 is moderate depression, and 29–63 is severe depression. It takes approximately 10 minutes to complete. In terms of validity and reliability, Wang & Gorenstein (2013) stated that the score for internal consistency was approximately 0.9, and the reliability score ranged between 0.73 to 0.96. This points towards the BDI-II being highly reliable for measuring symptoms of

depression and differentiating between those who might or might not be depressed. It is also considered cost-effective and ideal for clinical and research work globally.

The data collection process began with identifying the research assistants who would help with data collection, briefing them on the purpose and objectives of the study, and then training them on how to use the standardized tools to collect data. The center staff helping in the study were also trained on their role in contacting the respondents. The eligible respondents to participate in the study were selected from the database with the counselor's help. Because of concerns about privacy and confidentiality, the female IPV survivors were contacted by the center staff, who had been trained in preparation for the data collection. They briefed the respondents on the researcher's intentions and asked if they would participate in the study. The other respondents were selected from those who came in to seek care and support and those who belonged to support groups. Once they came, an explanation was given on the consent form and signed by the participants before the data collection process began, as well as their rights and extra support available. The respondents consented to participate in the study and were reminded that this was voluntary, meaning they could stop if uncomfortable.

The pilot study was conducted at the Mama Lucy Kibaki Hospital in Embakasi, Nairobi County, Kenya. The reason for choosing the mentioned study site is because it serves females who have been subjected to IPV and provides psychosocial support to them. In conducting the pilot study, all the participants were contacted by telephone. They were given information regarding the study, and then they consented to participate in the study. The tools were administered to 20 IPV survivors, representing 10 percent of the study sample. These female IPV survivors had received psychosocial support after being exposed to IPV. The results of the pilot study were not included in the final data

analysis of the main study. The researcher confirmed that the protocols and research tools could be used to collect data from the pilot. It also revealed that because of the number of questionnaires to fill, it was necessary for a research assistant to manage the issuance of the questionnaires and monitor how the respondents were filling them to reduce mistakes.

Once all the questionnaires had been filled, the data were cleaned by ensuring the relevant information had been captured in all the questionnaires and that the respondents all fit into the inclusion criteria. As soon as the data were cleaned, they were captured and put into a coded Excel template. Corrections were done, and misspellings were corrected to ensure all the columns and rows had clean data. Once completed, the dataset was saved on the computer's hard drive and password-protected, waiting for analysis to begin. The researcher also ensured that the complex data (the completed questionnaires) were stored in a locked drawer to maintain confidentiality. The soft data were analyzed using the Statistical Package for Social Sciences (SPSS) version 26. Data analysis was done in two distinct phases. This began with using descriptive statistics to provide information about the data sets obtained regarding the symptoms of depression. In addition, the odds ratio was employed to establish a relationship between depression and IPV among female IPV survivors. Reliance was on inferential statistics that helped draw the conclusion based on the analysis of results. The t-test was used to understand the impact that IPV has on depression as a mental health outcome. Logistic regression was used as part of the descriptive statistics to explain the relationship between depression and IPV among survivors.

The necessary ethical considerations were observed to protect the respondents from physical, psychological, and emotional harm and to provide support where needed.

RESULTS

Respondents' socio-demographic characteristics

The study targeted 200 respondents but managed to get 204 respondents who completed the study questionnaires. As evident from Table 1, those interviewed for the study were between 18 and 40 years; the mean age was 29.3 years, with a Standard deviation of 6.0; the median age was 29.0 years. The respondents' levels of educational attainment ranged from high school leavers to postgraduate degree holders. The majority (50.5%) were high

school leavers, 44.0% were primary school leavers, and the remainder, 5.5%, were undergraduate and graduate degree holders. Only four (4) respondents did not specify their level of educational attainment. In terms of marital status, the majority, 62.4% (126) of the participants were married, followed by 17.3% (35) who stated they were single, 15.8% (32) who reported they were separated, and 4.5% (9) who were divorced; two (2) respondents did not indicate their marital status.

Table 1: Socio-demographic Characteristics of the Respondents

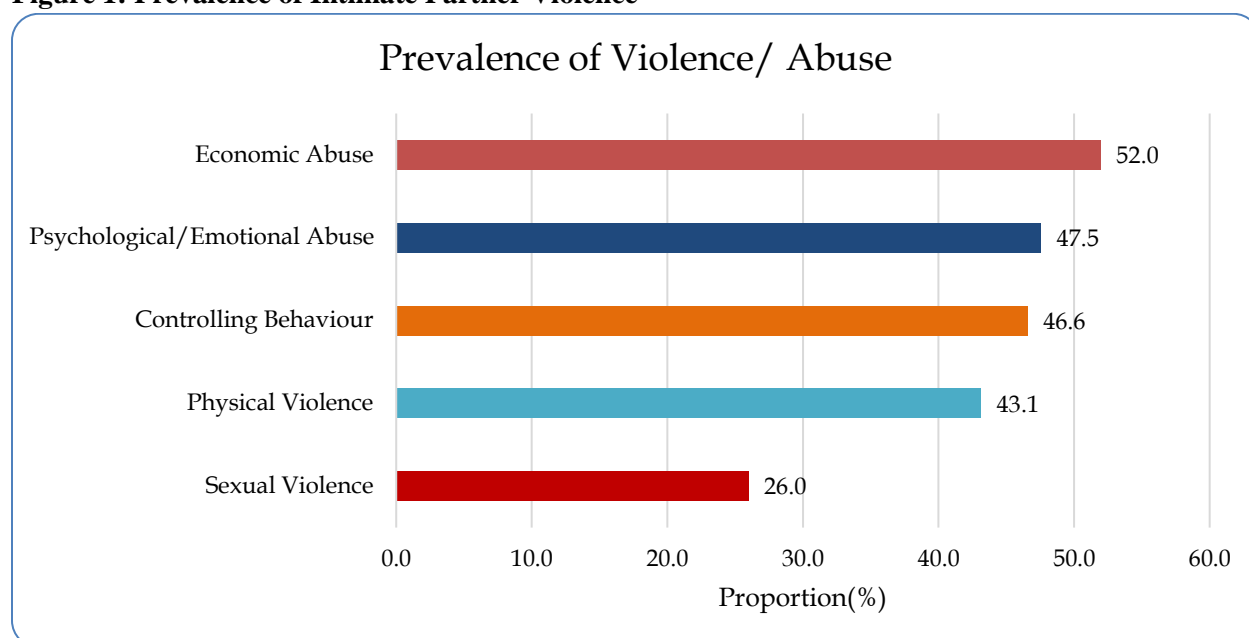
Variable	Category	Frequency (N=204)	Percentage (%)
Age in Years	18 -24 Years	51	25.0
	25-29 Years	59	28.9
	30-34 Years	45	22.1
	35-40 Years	49	24.0
Age in Years	Mean	29.3	
	Median	29.0	
	Std. Deviation	6.0	
	Minimum	18.0	
	Maximum	44.0	
	Interquartile Range	10.0	
Level of Education	Primary	88	44.0
	High School	101	50.5
	Undergraduate/Graduate	11	5.5
	Non-Response	4	
Marital Status	Married	126	62.4
	Single	35	17.3
	Divorced	9	4.5
	Separated	32	15.8
	Non-Response	2	

Prevalence of Intimate partner violence

In this study, the respondents reported having experienced different types of IPV, as represented by Figure 1 below. The majority had experienced economic abuse (52.0%), followed by psychological/ emotional abuse (47.5%), controlling behaviors (46.6%), and physical

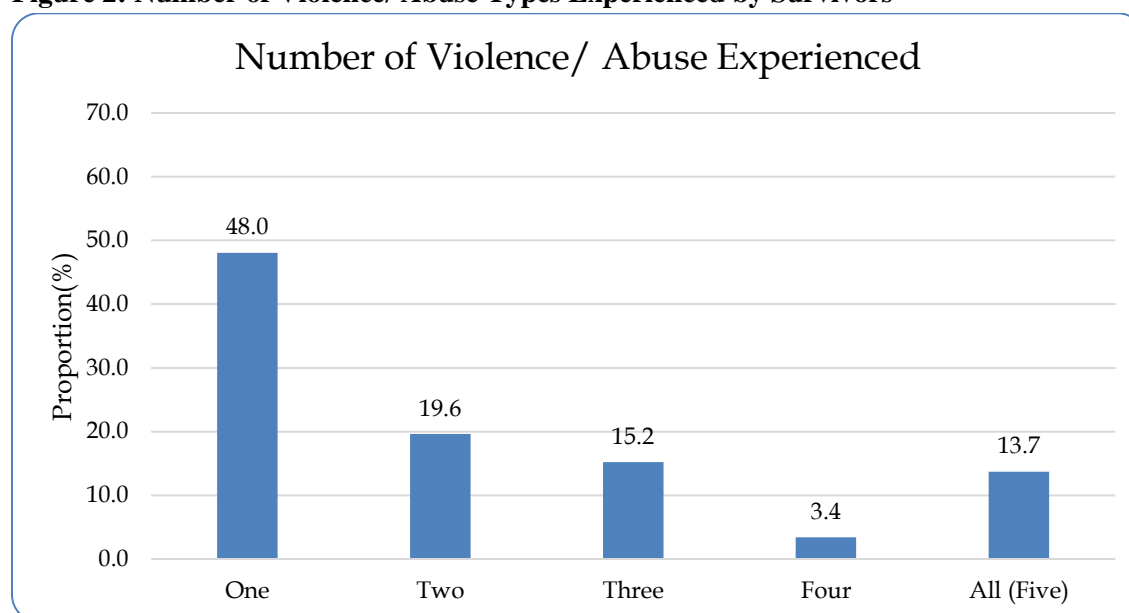
violence (43.1%), respectively. Sexual violence had the least number of respondents reporting having experienced it (26.0%). Regarding the number of violence experienced, the majority reported having experienced one type of violence at 48%, two types at 19.6%, three types at 15.2%, four types at 3.4%, and all types of violence at 13.7% of all the respondents.

Figure 1: Prevalence of Intimate Partner Violence



Regarding the types of violence experienced, 13.7% indicated that they had experienced all types of violence. The remainder included 48% who reported having experienced one type of violence, 19.6% of two types, 15.2% of three types, and 3.4% who had experienced four types of violence. Figure 2 depicts these trends.

Figure 2: Number of Violence/ Abuse Types Experienced by Survivors



Prevalence of Depression

The BDI II questionnaire was used to determine the prevalence of depression symptoms among respondents. The results are captured in Table 2

below. With depression levels categorized into minimal, mild, moderate, and severe, the highest percentage of respondents (48.0%) had symptoms of severe depression. The other levels included 42

participants (20.6%) with symptoms of moderate depression, 16 participants (7.8%) with symptoms of mild depression, and 48 participants (23.5%) with symptoms of minimal depression. In total, 140 participants (68.6%) were found to have symptoms

of moderate to severe depression, which implies probable depression. In this study, those categorized as having probable depression are those found to have moderate to severe symptoms of depression.

Table 2: Prevalence of Depression among respondents

Variable	Category	Frequency (N=204)	Percentage (%)	95% C. I	
				Lower	Upper
Depression levels	Minimal (0-13)	48	23.5	18.1	29.9
	Mild (14-19)	16	7.8	4.4	11.3
	Moderate (20-28)	42	20.6	15.2	26.5
	Severe (29-63)	98	48.0	41.2	55.4
Probable Depression	Negative (0-19)	64	31.4	25.0	37.3
	Positive (20-63)	140	68.6	62.7	75.0

The relationship between symptoms of depression and Intimate Partner Violence

To test for the relationship between symptoms of depression and IPV among female survivors in Nairobi County, Kenya, further analyses were conducted utilizing Odds Ratio (OR) analysis and the t-test.

Odds Ratio

The odds ratio is a method of analysis in which one compares whether the odds of a particular outcome are the same for two groups. An OR of less than one (1) means that the first group was *less* likely to experience the event. In contrast, an OR higher than one (1) means that the first group had a greater propensity to experience the event relative to the second group. With specific reference to this study, an OR of one (1) meant that exposure to a specific form of abuse did not increase the odds of experiencing the mental health outcome, depression, under review. On the contrary, an OR

greater than one (1) meant that exposure to a specific form of abuse increased the risk of mental health outcome, depression. In addition, an OR of less than one (1) meant that those exposed to the abuse had a lower risk of experiencing the mental health outcome in question.

Relationship Between Depression and Psychological/ emotional Abuse

In Table 4, the risk of experiencing symptoms of depression was 1.82 times among the participants who had suffered from psychological/ emotional abuse as compared to those who had not. The participants who experienced psychological/ emotional abuse had a 75.3% risk of suffering from symptoms of depression in comparison to those who had not, who had a 62.6% risk. The P value of 0.053, which is almost equal to 0.05, denotes a statistically significant association between symptoms of depression and psychological/ emotional abuse.

Table 4: Relationship Between Depression and Psychological/ Emotional Abuse

Parameter	Category	Psychological/ Emotional		O.R[95% C. I]	sig.
		No	Yes		
Depression (BDI)	Negative	40(37.4%)	24(24.7%)	Ref.	0.053
	Positive	67(62.6%)	73(75.3%)	1.82[0.99; 3.33]	

Relationship Between Depression and Controlling Behavior

In Table 5, the risk of depression symptoms was 1.89 times among the participants who had suffered from controlling behaviors as compared to those

who had not. The participants who experienced controlling behaviors had a 75.8% risk of having symptoms of depression, in comparison to those who had not experienced controlling behaviors and had a 62.4% risk. The difference between the two groups was statistically significant: $p\text{-value} = 0.041$.

Table 5: Relationship Between Depression and Controlling Behavior

Parameter	Category	Controlling Behavior		O.R[95%C. I]	sig.
		No	Yes		
Depression (BDI)	Negative	41(37.6%)	23(24.2%)	Ref.	0.041
	Positive	68(62.4%)	72(75.8%)	1.89[1.03; 3.47]	

Relationship Between Depression and All forms of Intimate Partner Violence

In Table 6, the risk of depression symptoms was 3.10 times among the participants who had experienced all five forms of abuse relative to those

who had not. This result was statistically significant; $p\text{-value} = 0.044$. Specifically, those who had suffered from all forms of violence/ abuse had an 85.7% risk of having symptoms of depression compared to those who had not and whose risk stood at 65.9%.

Table 6: Relationship Between Depression and All forms of Intimate Partner Violence

Parameter	Category	All forms of Abuse		O.R[95%C. I]	sig.
		No	Yes		
Depression (BDI)	Negative	60(34.1%)	4(14.3%)	Ref.	0.044
	Positive	116(65.9%)	24(85.7%)	3.10[1.03; 9.36]	

The t-test analysis

The t-test was used to determine if there were statistically significant differences in the mean scores for depression as a mental health outcome between those who had and those who had not experienced the various types of violence/ abuse focused on by this study. As a preamble to the t-test analysis, the Composite Abuse Scale Revised-short

Form (CASR-SF) was used to determine the types of abuse the respondents may have experienced and correlated against symptoms of depression as a mental health outcome. Table 7 presents the results for the correlation between the Composite Abuse Scale and depression. Based on the table, statistically significantly positive correlations were obtained between abuse scale scores (CASR-SF) and depression scores ($r = 0.431$, $p < 0.001$).

Table 7: Correlation Between Composite Abuse Scale Revised and Depression.

Correlations	1	2	3	4	5	6	7	8	9	10	11
1. CASR-SF	1										
2. BDI-II	0.431**	0.572**	1								

Depression and Psychological/ emotional abuse

Table 8 shows the comparative mean scores of symptoms of depression for those who had and those who had not experienced psychological/

emotional abuse. Mean scores for symptoms of depression were significantly higher among the respondents who had experienced psychological/ emotional abuse relative to those who had not ($t\text{-value} = -2.56$; $df. = 202$; $p = 0.011$).

Table 8: Relationship Between Depression and Psychological Abuse

Measure	Psychological/Emotional Abuse		t	Df	Sig.
	No	Yes			
	Mean (SD)	Mean (SD)			
BDI Scores (Depression)	24.9(14.2)	30.3(15.8)	-2.56	202	0.011

Depression and Sexual violence

In Table 9, the observed differences in mean scores in symptoms of depression for research participants who had experienced sexual violence relative to

those who had not. As evident from the Table, those who had experienced sexual violence/ abuse recorded statistically significant higher mean scores in symptoms of depression (t-value = -2.77; df = 202; p = 0.006) relative to those who had not.

Table 9: Relationship Between Depression and Sexual Violence

Measure	Sexual Violence		t-value	Df	Sig.
	No	Yes			
	Mean (SD)	Mean (SD)			
BDI Scores (Depression)	25.8(15.0)	32.4(14.7)	-2.77	202	0.006

Depression and Physical Violence

In Table 10, the mean differences in symptoms of depression among respondents who had experienced physical violence and those who had

not been shown. The study revealed that those who had suffered physical abuse had statistically significant mean scores in depression (t-value = -2.43; df = 202; p = 0.016) compared to those who had not.

Table 10: Relationship Between Depression and Physical Violence

Measure	Physical Violence		t	Df	Sig.
	No	Yes			
	Mean (SD)	Mean (SD)			
BDI Scores (Depression)	25.3(14.1)	30.4(16.1)	-2.43	202	0.016

Depression and Controlling Behavior

In Table 11, the results for controlling behavior showed that respondents who had experienced this

type of abusive behavior had statistically significantly higher mean scores in symptoms of depression (t-value = -2.73; df = 202; p = 0.007) compared to their counterparts who had not.

Table 11: Relationship Between Depression and Controlling Behavior

Measure	Controlling Behavior		t	Df	Sig.
	No	Yes			
	Mean (SD)	Mean (SD)			
BDI Scores (Depression)	24.8(14.7)	30.5(15.2)	-2.73	202	0.007

Depression and All Forms of IPV

In Table 12, the results revealed that respondents who had experienced all forms of IPV recorded

statistically significant higher mean scores in symptoms of depression (t-value = -3.48; df = 202; p=0.001) compared to those who had not.

Table 12: Relationship Between Depression and All Forms of IPV

Measure	All forms of Abuse		t	Df	Sig.
	No	Yes			
	Mean (SD)	Mean (SD)			
BDI Scores (Depression)	26.0(14.7)	36.5(15.7)	-3.48	202	0.001

DISCUSSIONS

The outcome of this study adds to the literature that examines the prevalence of and relationship between the symptoms of depression as a mental health outcome and IPV among female survivors experiencing different types of IPV in Nairobi County. The study made use of structured questionnaires to assess the symptoms of depression among female survivors. The results showed that symptoms of depression can be linked to some of the different forms of violence.

Summary of findings

This study focused on female victims of IPV who current or former patients at Mama Lucy Hospital in Embakasi and Nairobi Women's Hospital in Nairobi County were, Kenya. Those interviewed were between 18 and 40 years old, the majority (76.0%) of whom were aged below 35 years. Regarding educational attainment, the majority (50.5%) were High school graduates, 44.0% had completed Primary schooling, and 5.5% held Undergraduate/ Graduate degree qualifications. Further, most respondents (62.4%) were married, 17.3% were single, and 15.8% were separated. All respondents had been in an abusive relationship at some point in their lifetime and fit into the inclusion criteria for this study.

Regarding the prevalence of IPV among survivors of IPV in Nairobi County, the study revealed that all the respondents had reported experiencing IPV as well as a combination of different types of IPV in their lifetime and within the last year. Most of the respondents, 52.0%, were positive for economic abuse, 47.5% were positive for psychological/emotional abuse, 46.6% were positive for controlling behavior, 43.1% were positive for

physical violence, and 26% were positive for sexual violence. Among the respondents in this study, economic abuse was the most common, and sexual violence was the least common. Out of all the respondents, 48.0% reported having experienced one type of violence, 19.6% had experienced two types, 15.2% had experienced three types, 3.4% had experienced four types, and 13.7% had experienced all forms of violence within the past year.

Concerning the prevalence of symptoms of depression, 68.6% of the respondents had moderate to severe symptoms and were positive for depression. In comparison, 31.4% had minimal to mild symptoms and were negative for depression. The study revealed the relationship between symptoms of depression as a mental health outcome and the different types of abuse by applying the odds ratio. Those who experienced psychological/emotional abuse were 1.82 times more likely to have symptoms of depression at a percentage of 75.3% risk. Those who had experienced controlling behaviors were 1.89 times more likely to have symptoms of depression at 75.8% risk. Those who had experienced all forms of violence were 3.10 times more likely to have symptoms of depression at an 85.7% risk.

A t-test analysis was conducted to establish the significance of the different mean scores. The study revealed that mean scores for depression and psychological abuse, depression and sexual abuse, depression and physical abuse and depression, controlling behaviors, and depression and all forms of violence were statistically significant.

Discussion of findings

Prevalence of symptoms of depression among Intimate Partner Violence Survivors

The prevalence of depression symptoms among female survivors of IPV in Nairobi County was categorized into minimal, mild, moderate, and severe. According to the scores, most respondents had severe symptoms of depression, followed by those with moderate depression, and the rest had minimal or mild symptoms of depression. These results show that most respondents have probable depression. The theory of learned helplessness by Maier and Seligman (1993) may explain this as the survivors seem unable to avoid the negative and unpleasant experiences despite possible ways out. As a result of enduring, the symptoms of depression increase, and so does inaction, which can also maintain the problem.

Regarding the respective forms of abuse, the prevalence rates varied from one form to the other. The prevalence rates of symptoms of depression among respondents who had experienced different forms of abuse varied as follows: psychological/emotional abuse had a prevalence of 75.3%, sexual violence at 79.2%, physical violence was at 72.7%, those subjected to controlling behaviors at 75.8%, economic abuse at 67% and for those who had experienced all forms of violence, at 85.7%. These findings are consistent with those of previous studies. According to Yuan and Hesketh (2019), a study done in China showed that the prevalence of depression among survivors of sexual violence was 75.8% for physical violence at 69.5% and 65.8% for psychological violence. Nathanson et al. (2012) also had a prevalence rate of 56.4% for depression among Caucasian and African American female victims of IPV in the US.

Based on the findings in this study, depression rates were highest among those who had experienced all forms of violence, followed by those who had been subjected to sexual violence, then those who had experienced psychological/emotional abuse, those who experienced physical violence, and lastly those who had experienced economic abuse. The prevalence rates were all above 65 percent for depression, which sets it apart as a significant

mental health outcome that is likely to be experienced by survivors of IPV. These results show that attention should be given to assessing the mental health of female survivors and the coping strategies shared to enable them to thrive. With these rates of prevalence, severity may increase as time goes by, as well as the effect, which may include suicide and homicide, to address the hopelessness and helplessness they may feel.

Relationship between symptoms of depression and Intimate Partner Violence

The study sought to establish a relationship between IPV, in any form, symptoms of depression among female IPV survivors in Nairobi County. The results showed a positive correlation between CASR-SF and BDI ($r=0.431$, $p<0.001$). These findings imply that IPV is strongly related to BDI. The symptoms of depression can be anticipated and should be screened for, and possible preventive/management measures should be put in place when dealing with survivors of IPV.

Regarding depression and its association with different forms of abuse experienced by survivors, the findings show varied results. Survivors of IPV were found to have a higher risk of depression in comparison to those who had not experienced IPV. The female survivors who experienced psychological/emotional abuse are subjected to controlling behaviors, as well as those who encounter all forms of violence, were found to be at risk of having symptoms of depression as compared to those who are not experiencing those forms of IPV. The statistical association between psychological/emotional abuse and depression (O.R. = 1.82, 95% CI 0.99; 3.33, $p = 0.053$), controlling behavior and depression (O.R. = 1.89, 95% CI 1.03; 3.47, $p = 0.041$) and all forms of abuse and depression (O.R. = 3.10, 95% C.I. 1.03; 9.36, $p = 0.044$). These results were somewhat consistent with the findings of Johnson et al. (2014) and Devries et al. (2013), which established that being exposed to sexual violence, including controlling behavior by a perpetrator of IPV, can result in the

development of depression symptoms as compared to those who are not exposed. Generally, depression is strongly associated with IPV among female survivors. Lovestad et al. (2017) concluded that women who had been exposed to IPV in the form of controlling behavior without any sexual or physical violence in 12 months were more likely to report symptoms associated with depression when compared to those who have not been exposed to such. In this study, a significant relationship was identified between female IPV survivors who experienced psychological or emotional abuse, controlling behaviors, or all forms of abuse and symptoms of depression. This confirms the association between psychological abuse, controlling behaviors, and all forms of violence and their impact on a survivor's mental health.

The results also showed no significant statistical association between sexual violence and depression (O.R. = 2.06, 95% C.I. 0.98; 4.34, $p = 0.056$), physical violence and depression (O.R. = 1.40, 95% C.I. 0.77; 2.57, $p = 0.273$), and no statistical association between economic abuse and depression (O.R. = 0.85, 95% C.I. 0.47; 1.54, $p = 0.598$). These findings suggest that the symptoms of depression among survivors of sexual violence, physical violence, and economic abuse in Nairobi County are not significantly different when compared with those who have not experienced the same types of abuse. These findings go against previous findings that associate depression with physical abuse in respondents from other studies. Johnson et al. (2014) and Devries et al. (2013) established that being exposed to physical violence by a perpetrator of IPV can make one develop depression symptoms, and this when compared to the women who had not been exposed. A study done among Latina IPV survivors, according to Johnson et al. (2022), found that economic abuse was significantly correlated with depression but did not predict whether one would suffer from depression if other forms of IPV were controlled. The findings of this study partly go against what they established since physical abuse had no significant association

with depression. Winter et al. (2020) investigated the critical correlates of women's physical and mental health and explored psychological distress among females in Nairobi. They found that psychological abuse was associated with major depressive disorder (OR = 2.6, $p < 0.01$). They also found that physical abuse was significantly related to major depressive disorder (OR = 3.7, $p < 0.001$), which was inconsistent with the findings of this study. They found that IPV, in physical and psychological form, was linked with poor mental health outcomes like suicidality, substance use, and major depressive disorder (MDD). However, from this study, physical abuse was found not to be strongly linked to depression.

CONCLUSION

Regarding the prevalence of symptoms of depression among female IPV survivors in Nairobi County, the prevalence was categorized into minimal, mild, moderate, and severe. Those with moderate and severe symptoms were concluded to have probable depression. The prevalence rates of depression also varied from one form of abuse to another. The prevalence of depression was highest among survivors who had experienced all forms of violence followed by sexual violence, those subjected to controlling behaviors, psychological or emotional abuse, physical abuse, and lastly, economic abuse, in that order. From these results, the conclusion is that female IPV survivors in Nairobi County have high rates of depression. Therefore, any efforts made to address IPV must also address depression. The professionals should also be conscious about many having the symptoms of depression or can be diagnosed as depressed, but they are not aware of it, which is a risk factor. The symptoms, including hopelessness, helplessness, negative emotions, and lethargy, would need to be targeted through comprehensive psychotherapy, psychoeducation, and encouraging building a community around oneself to ensure social support. These conclusions are consistent with those of other studies looking into similar strategies. Therefore,

efforts should be made by various stakeholders to address IPV and depression.

LIMITATIONS

This study was limited because it focused on the prevalence of symptoms of depression among female survivors of IPV in an urban setting.

RECOMMENDATION

A comparative study of the prevalence of depression symptoms in different genders, males, from different settings, including urban and rural settings, may add value to the larger field. Since many previous studies have linked depression to physical abuse, future studies can be done to validate these findings that showed lower rates of depression among survivors of physical violence. A qualitative study should be done among the survivors to explore their lived experiences and gain more profound knowledge of all factors that may predispose them to depression.

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