Evaluating the Effect of Health Education on the Knowledge of the Types and Predisposing Factors, for Domestic Violence against Women among Female Traders in Abakaliki. Ebonyi State Nigeria.

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Abstract
The study aimed to assess the impact of health education on knowledge of predisposing factors, preventive measures, and attitude towards domestic violence among female traders in Abakaliki. Domestic violence, which involves physical, sexual, or psychological harm, is often underreported due to religious and cultural beliefs and fear of repercussions. The study involved 1030 market owners/tenants, with a sample of 635 selected using systematic random sampling technique. A semi-structured, pretested, interviewer-administered questionnaire was used for data collection. The prevalence of domestic violence was 37.8%, and the study found that awareness of predisposing factors, consequences, and prevention measures was low at baseline. Major consequences of domestic violence included depression, anxiety, death, chronic pain, miscarriage/stillbirth, inflicting fractures, and unwanted pregnancy. Health education had a significant positive effect on knowledge of predisposing factors, preventive measures, and attitude towards domestic violence. The proportion of respondents with good knowledge of preventive measures of domestic violence against women was 11.8% at baseline and 21.9% post intervention. Beating was reported as the commonest type of domestic violence experienced by 65.8% of respondents, while 49.7% reported no tangible reason for the beating. The attitude towards domestic violence among female traders was poor, with only 51.2% having a good attitude at baseline and 56.5% post intervention. The study recommends prioritizing girl child/women education, intensifying public awareness campaigns, dedicating a special court to handle domestic violence-related issues, and establishing a toll-free line for reporting cases of domestic violence.
Keywords: Domestic Violence, Health Education, Knowledge, Predisposing factors, Preventive measures

Introduction

Domestic violence is a form of physical, psychological, and emotional violence that targets individuals with the intent to cause harm or exert control over them. It occurs in various settings and among different socio-economic, religious, and cultural groups, with women bearing the overwhelming global burden of intimate partner violence (IPV). This type of violence can also occur between family members and intimate partners, causing physical, sexual, or psychological harm [1].

Domestic violence affects women of all ages, education levels, and socio-economic backgrounds worldwide [2]. Risk factors for domestic violence include patriarchy, which can be categorized into individual, relationship, communal, and societal aspects. It is of great public health significance as victims' rights are denied and adverse health effects such as injuries, gynecological disorders, mental health problems, adverse pregnancy outcomes, and sexually transmitted infections occur. Victims often have a learned behavior of silence leading to under reporting [2].

However, risk factors differ globally, and domestic violence can affect women of any age, education, or marital status [3]. The World Health Organization (WHO) emphasizes the need for a multi-sectoral approach to prevent violence against women, including early detection of abuse, providing necessary treatment, and referring women to appropriate care. Public health strategies include changing attitudes that foster violence and gender inequality, helping women become financially independent, strengthening self-esteem, and reducing excessive alcohol consumption [4].

Domestic violence is a significant public health issue that impacts individuals' health and wellbeing, affecting their resilience and capacity to build strong communities. It has negative consequences on physical, reproductive, and mental health, including ocular damage, chronic pain, gynecological disorders, pregnancy complications, sexually transmitted infections, unsafe abortions, low birth weight babies, alcohol and drug abuse, suicidal behaviors, self-harm, depression, anxiety, AIDS-related mortality, maternal mortality, and homicide/suicide [5].

Education, early warning, and early response are essential in addressing gender-based violence. Nigeria's national gender policy emphasizes women's human rights, particularly sexual and

gender-based violence. A core strategy for achieving this policy is gender education and capacity building, aiming to achieve technical expertise and a positive gender culture [6].

SDG 5 and 16 aim to achieve gender equality and empower women, while SDG 16 targets reducing violence and related deaths among women, including domestic violence and dowry deaths. Awareness of the problem is crucial for positive change in behavior [7].

This study investigates the effect of health education intervention on knowledge of predisposing factors, consequences, and prevention measures among female traders in Abakaliki. The findings will be used by healthcare policy makers to improve the control of domestic violence through policy formulations and legislations.

The Prevalence of Domestic Violence

Intimate partner violence against women is a global issue with severe consequences on their physical, mental, and psychological health. It is a multifaceted phenomenon that involves factors at different levels, including individuals, communities, and society. In India, the prevalence of domestic violence is 36.4%, higher than the national average of 25.3%. A study conducted in India found that 70.5% of married women reported domestic violence, with 67% experiencing physical abuse and 38.5% seeking help [8].

A World Health Organization study revealed that 15-71% of women experience domestic violence in their lifetime, with only 4-49% reporting abuse. This violence is often perpetrated by men, rooted in gender and power inequality. It is estimated that 38-50% of murders of women are committed by intimate partners [9].

A global prevalence of intimate partner violence was found to be about 90%, with 23-31% of ever-partnered women aged between 15-49 years having experienced physical or sexual intimate partner violence in their lifetime. Experience of intimate partner violence is a risk factor for many acute and chronic diseases and stress-related conditions among women [10].

In Nigeria, almost 1:4 women reported ever experiencing intimate partner violence. Another cross-sectional study found that 1:4 women reported ever having experienced IPV in Nigeria, with the lowest experience among the oldest age group but highest between the ages of 25-34 years. The Covid-19 pandemic with its control measures and restrictions further worsened the already heavy load of intimate partner violence [11].

Predisposing factors for domestic violence

Intimate partner violence in married, cohabiting, and dating couples has gained significant attention from the public, scholars, and social activists [12]. A case-control study in the US identified risk factors for domestic violence, including male partners, alcohol abuse, drug use, unemployment, low education, and former husbands or boyfriends. Factors increasing the likelihood of domestic violence include seeing or being a victim of violence as a child, not having a job, tradition, influential female in-laws, and couples within the same age group. Cultural norms in some countries view violence against women as normal, with over half of surveyed women justifying spousal violence in certain areas [13]. Domestic violence is significantly associated with lower social class, alcohol consumption, increasing age disparity between couples, and spousal unemployment [14].

Consequences of domestic violence

Domestic violence costs the US government 4.1 billion annually on mental and medical health costs. Victims of physical abuse experience physical injuries, poor health outcomes, psychological symptoms, poor functioning, and poor cognition. They are prone to taking medications and visiting mental clinics more frequently [15]. Long-term health consequences include asthma, arthritis, chronic pain, heart diseases, stomach pains, high stress levels, depression, post-traumatic stress disorder, anxiety, drug and alcohol abuse, and sexually related problems like unwanted pregnancy, sexually transmitted infections, and low birth weight babies [16]. Domestic violence against women is increasing in Bangladesh, with estimates ranging from 30%-50%. A cross-sectional survey found that verbal abuse was the most common cause of intimate partner violence during pregnancy, followed by unidentifiable causes, domestic issues, late nights, and financial problems. Victims' reactions to violence include praying, crying, and begging [17].

On The Physical Health of Women

A survey at the University of South Carolina found that 53.6% of women seeking primary care experienced intimate partner violence, leading to adverse health outcomes such as disability, chronic pain, and arthritis, and migraine, headache, stammering, and sexually transmitted

infections [18]. In Australia, intimate partner violence was associated with poor physical health, chronic pain, and gynecological infections. Physical abuse by intimate partners is the most endemic form of violence against women. Chronic diseases, poor self-perceived health, and psychological distress may be higher in battered women, who are more exposed to tranquilizers, analgesics, antidepressants, and illegal drugs [19].

On The Family

Domestic violence, also known as spousal abuse, family violence, and intimate partner violence, is a manifestation of unequal power between men and women. It can be perpetrated by enemies, family members, or even the state itself [20]. In Nigeria, 50% of women have been battered by their husbands, and domestic violence affects women's psychological and physical wellbeing, as well as their positions in society. Children exposed to domestic violence may become violent themselves in adulthood. Victims of domestic violence often experience fear, anxiety, depression, and guilt, with 60% meeting the diagnostic criteria for depression even after leaving the relationship [21].

Effect of Health Education on the Knowledge of Domestic Violence.

A study in Florida found that intimate partner victim survivors have various health education needs, with depression and self-esteem being the most important [22]. These survivors present with various health education needs and require health intervention-based programs. Studies in Iran, Kentucky, Canada, India, and South Africa have shown that education can reduce risk factors for domestic violence and increase protective factors for displaced victims. In Canada, a study found that educational interventions improved physicians' knowledge, recognition, and management of abused women [23].

Health education is a fundamental component of primary prevention strategies aimed at changing attitudes, behavior, and beliefs that normalize and tolerate domestic violence among the general public. A two-year survey in South Africa showed that a microfinance aid and participatory trainings on gender norms, HIV infection, domestic violence, and sexuality reduced the risk of physical or sexual violence by an intimate partner almost into half [24] .

In Nigeria, a study found that education alone does not have the total effect of curbing domestic violence. A significant relationship exists between women's education and their experience of intimate partner violence. Health education aims to sensitize people on the implications of gender-

based violence using community-based organizations and local leaders. During 2013 International Women's Day, the Lagos state gender advocacy team and the West African network for peace building called on the Nigerian government to declare "zero tolerance to violence against women and girls [25]." They urged the government to allocate adequate funds, ensure laws are enacted to end domestic violence, work with civil society organizations, train law enforcement agents, raise awareness, and involve women in conflict resolution [26].

Preventive Measures for Domestic Violence

The prevention of intimate partner violence among adolescents and young adults is crucial for reducing gender-based violence in adults. High rates of domestic violence against women are evident, and a zero tolerance approach to combat crime is needed [27]. Adolescent violence is between 20% and 46%, and it can affect children in the future, increasing the risk of behavioral problems and emotional injuries. Austrian ministers of social services implemented a preventive campaign called "Respect" to set standards for right and wrong behavior [28]. A documentary titled "Eliminate Domestic Violence" in Vienna inspired advocacy marches against domestic violence. Lack of or inadequate finance is a major cause of domestic violence among couples. A study by Paul M. Pronyk found that providing loans, income-generating activities, gender roles, cultural beliefs, and training curriculum can reduce intimate partner violence experiences by 55%. Attitudes and cultural norms also play a role in violence [29]. Health education aims to reduce internalization of gender-based violence through educating people on forms of violence, actions to take, behavior change among perpetrators, and curbing the menace of violence [30].

Domestic violence is a widespread issue, with acceptance rates varying across countries and regions. Societal attitudes towards domestic violence against women play a crucial role in its perpetration and victimization. In low and middle-income countries, intimate partner violence is an international priority and requires a multi-component response. In many low and middle-income countries, patriarchal family leadership supports the idea that women's behaviors are the cause of their partners' violent behavior [29].

A study in Bangladesh found that exposure, education, ethnicity, functional difficulties, and wealth index quintile influence the acceptance of domestic violence by Bangladesh women [31]. The belief that 'wife-beating' is acceptable was most common in Africa and South Asia, and least common in Central and Eastern Europe and Latin America and the Caribbean. Young adults were

more likely to accept physical abuse by a man or her intimate partner than those who were older, but people who had never had any partner were less likely to have these attitudes [31].

Differences in culture, such as geographical region, national boundaries, religion, or ethnic origins, are expected to accompany differences in attitudes towards violence against women. Many women living under classic patriarchy are forced or motivated to conform to the norms of wife-blaming in cases of violence as a strategy to prevent domestic violence [32].

In Kutahya, Turkey, 41.3% of women and 22.6% of men reported being subject to violence. Socio-demographic and socio-cultural factors influence attitudes towards violence against women, with women generally believed to justify it more than men. Support for intimate partner violence against women decreases with education and increases with deprivation [33].

Methodology

Study Area

The study was carried out in the largest market in Abakaliki. Abakaliki is the capital of Ebonyi State, South East Nigeria. Ebonyi state has 13 local government areas. Abakaliki metropolis spans 3 local government areas- Abakaliki, Ebonyi and part of Ezza North. Most of the residents of Abakaliki are civil servants, traders, bankers, artisans and farmers. Out of 13 markets in Abakaliki registered with the state ministry of commerce and industry, Abakpa main market was purposively selected. It is the oldest and the largest and has both wholesale and retail traders with a variety of general goods. The traders in this market belong to an association called AMMATA-Abakpa Main Market Traders Association. There were 2922 shops in the market.

Study Design

The study was a before and after intervention study that assessed the effects of health education on knowledge of predisposing factors, preventive measures and attitude for domestic violence against women among female traders in Abakaliki

Study Population

The study was carried out among female traders in Abakaliki. Traders who met the inclusion criteria were selected to participate in the study. Those not eligible were excluded.

Inclusion Criteria

- Adult female registered members of AMMATA who were in stalls.
- Adult female registered member of AMMATA who work with husbands that are in stalls.

Exclusion Criteria

Those who were absent.

- Those that declined consent to participate.

Sample Size Determination

The formula for comparing two proportions [34]

$$n= \frac{[Z + Z_B]^2 \times [P_1 (1-P) + P_2 (1-P_2)]^2}{[P1 - P_2]^2}$$

n= minimal sample size in each group

P1 = anticipated change in study, i.e. the proportion of respondents with good knowledge on domestic violence after intervention. 46% (0.680)[35]

P2 = proportion of respondents with good knowledge on domestic violence before intervention 25% (0.250)

Z = critical ratio or standard normal deviate at 5% level of significance = 1.96

Z_B= standard normal deviate corresponding to a power of 80% = 0.84

P1 – P2 = the smallest difference between the two groups of scientific importance which the study would not want to miss (68%-43%) = 25%= 0.25

$$n = \frac{[1.96 + 0.84]^2 \times [0.460 \times (1-0.460) + 0.250 \times (1-0.250)]^2}{}$$

$$[0.460 - 0.250]^2$$

= 521

Adjusting for non-response rate of e.g. 15%, the calculated sample size is multiplied by the factor: i.e. response rate is 85% 1/ (1-NR) where NR is the non-response proportion (1/1 – 0.15) x 521 = 613 for pre and post survey respectively [36].

Sampling Technique

A sample frame of stalls owned/rented by adult female traders and those working with their husbands was drawn up with the help of executives of AMMATA. This gave a figure of 1030 shops on the list with their shop numbers. Systematic random sampling was used to select the shops that were included in the study. The sampling interval of 2 was got by dividing the study population of 1030 by the calculated sample size (after adjusting for non-response) of 613. The starting point was by balloting of the first 2 shops on the list.

Data Collection Method

Data collections were in three stages:

The pre- intervention stage

The intervention stage

The post- intervention stage

Pre intervention Stage

The permission for the study was sought from the executives of AMMATA. The purpose of the study were explained to them. They were expected to explain this to their members to participate.

Training of Interviewers

The research team included the principal investigator and three research assistants that were trained on how to administer the questionnaire on three non-consecutive days over a period of two weeks. **Pre-test** at kpilikpili market in Abakaliki was carried out before the main study to ensure validity. The questionnaire was pre tested on 30 randomly selected subjects. The questionnaire was corrected using the result of the pre-test.

Administration of the questionnaire:

Semi- structured interviewer administered questionnaire was used.

The questionnaire was administered on the participants who give informed written consent to participate. These were done in their shops. The questionnaire were English language but communication was in Igbo were necessary.

The intervention stage

This involved giving the women health education on consequences, predisposing factors and measures for prevention for domestic violence. It was in four modules:

Module one

Involved the introduction and general objectives of the study which was evaluating the Effect of Health Education on the Knowledge of the Types and Predisposing Factors, for Domestic Violence against Women among Female Traders in Abakaliki. Ebonyi State Nigeria

Module two

Involved the types and predisposing factors to domestic violence.

Post- Intervention Stage

Three months after the initial intervention the same questionnaire that were used for the data collection at baseline were also administered to the participants. The aim was to determine and compare the effect of health education on knowledge of the predisposing factors, consequences and measures for prevention of domestic violence against female among the female traders in Abakaliki with the baseline survey.

Data Management/ Method of Data Analysis

Questionnaires were reviewed for incomplete/wrongly filled ones. The questionnaires wrongly filled and those not retrieved were not part of the final analysis.

Measurement of variables

Independent variables: This includes the socio-demographic characteristics such as age, marital status, level of education.

Dependent/outcome variables: This includes prevalence of domestic violence, domestic violence knowledge scores for pre-disposing factors, Cross tabulation were done to determine the relationship between the variables. Data were analyzed using statistical product & service solution SPSS version 23. Frequency tables' simple percentages means and standard deviation were calculated. Tests of statistical significance (McNemar X^2) were done to assess the effect of health education on their knowledge. Statistical significance were present when P values is $\leq$ 0.05 confidence level at 95%.

Assessment of knowledge:

The correct responses to the knowledge based questions identified by other respondents were scored as a percentage of the possible total score of correct answers. 50% were taken as good knowledge.

Ethical considerations

Ethical clearance for this study was obtained from the research and ethics committee of Ebonyi State University Abakaliki. Permission to carry out the study was also obtained from the executives of market traders association.

Confidentiality: The data collection tools questionnaire and the checklist for the approval of the traders did not include self-identifying characteristics such as names of study participants, phone numbers, and stall numbers.

A separate booklet was opened for such records during the sampling frame preparation and was coded for reference purposes.

Informed consent: written informed consent was obtained after explaining the purpose of the study to the respondent.

Voluntary participation: participation was optional and respondents were made to know this, and they were at liberty to decline to participate or withdraw from the study with no consequence to them.

Limitations of the study

The data is self-reported and there may be untruthful response if confidentiality is not assured. They were assured of the confidentiality of their responses. There may be problem of social desirability bias.

To ensure that the same population used for the pre intervention, intervention and post intervention phases were used, codes known only to the researcher were used to identify the stalls.

Results

In this study 635 female traders were enrolled and interviewed respectively during the pre and post intervention phases. All the enrolled participants responded to the data collection tool hence giving a response rate of 100%. They all also took part in the intervention phase. The findings are presented on the tables and figure below.

Table 1: Socio-demographic characteristics of the traders

Variable	Frequency (n=635)	Percentage
Age groups (years)		
<28	60	9.4
28 – 49	450	70.9
>49	125	19.7
Mean ±SD (Range)	**38.9±10.9(18-74)**	
Marital status		
Single	57	9.0
Presently married	335	52.8
Separated/widowed/divorced	243	38.5
Ethnicity		
Igbo	522	82.2
Yoruba	77	12.1
Others	36	5.7
Religion		
Christian	587	92.4
Islam	48	7.6
Type of marriage (n = 578)		
Monogamy	511	88.4
Polygamy	67	11.5
Position (n = 67)		
1st wife	15	22.4
2nd wife	26	38.8
3rd wife	26	38.8
Level of education completed (n = 635)		
No formal education	67	10.5
Primary school	101	15.9
Secondary school	204	32.1
Tertiary education	263	41.4
Duration in marriage (years)	**13.1±10. 0 (1-55)**	
Number of male children alive	**2.0±1.0 (0-7)**	

Number of female children alive	**1.0±1.0 (0-8)**

Table 1 showed that the average age of the women was 38.9±10.9years ranging between 18 and 74years, with those aged 28 – 49years being greatest in proportion 450 (70.9%). Majority 335 (52.8%) were at that moment in a marital relationship. Over 85% of those had ever married were in a monogamous setting. The average duration of marriage for the women was 13.1years with maximum duration of 55years. Greatest proportion of the women had up to tertiary level of education 263 (41.4%). Some of them had no children alive while some had up to 7 and 8 male and female children alive respectively.

Table 2: Awareness of domestic violence, prevalence, perpetrators and reported reasons for domestic violence against the respondents

Variable	Frequency (n=635)	Percentage
Awareness about predisposing factors of domestic violence against women		
Yes	400	63.5
No	235	37.5
Awareness about the consequences of domestic violence against women		
Yes	196	30.8
No	439	69.2
Awareness about the preventive measures for domestic violence against women		
Yes	197	31.0
No	438	69.0

*Multiple responses allowed

On Table 2, it was revealed that 400 (63.5%), women had ever heard about domestic violence against women, 196 (30.8%) and 197 (31.0%) were aware of the consequences and the preventive measures for domestic violence against women respectively.

Table 3: Prevalence and Experiences of Domestic Violence

Variable	Frequency (n=635)	Percentage
Commonest Domestic violence I experienced		
Beating or battery	125	65.8
Verbal abuse	26	13.7
Fighting	21	11.1
Sexual abuse	18	9.5
Reported reasons for domestic violence experienced *		
Financial issues	88	39.3
Misunderstanding	75	33.5
Infidelity	23	10.3
Infertility/desire for more children	12	5.4
Request for sexual intercourse	9	4.0
Care for the children and food issues	6	2.7
Wealth and inheritance	6	2.7
Alcohol	5	2.2
No tangible reason	221	49.7
Actions I took following domestic violence*		
Reported to our parents	79	33.2
Reported to pastor	59	24.8
Cried	56	23.5
Begged	49	20.6
Fought back	35	14.7
Commonest perpetrators of domestic violence *		
Men	272	55.1
Husband	162	32.
In-laws	16	3.2
Women/friends	13	2.8
Neighbours	4	0.8

*Multiple responses allowed

Table 3 shows that the commonest type of domestic violence experienced by the women was beating or battery as reported by 125(65.8%). Sexual abuse was the least reported, 18(9.5%).The women who have experienced domestic violence stated that in about half, 221, (49.7%) of cases, there were no tangible reason given for the action. However, the commonest trigger of domestic violence they could explain was as a result of financial issues 88(39.3%). Most women 79(33.2%)

resorted to reporting to their parents when domestic violence was meted out to them. About 35(14.7%) of them fought back the perpetrators, commonest of who were men 272(55.1%), neighbour 4 (0.8%) were also seen to carry out domestic violence against women.

Table 4: Knowledge of Types of Domestic Violence against women Pre and Post Intervention.

Variable	Period of study n (%)		McNemar P-value
	Pre intervention	Post intervention	
Domestic violence includes			
Beating	492 (79.2)	501 (80.7)	0.57
Throwing objects at one another	234 (37.7)	254 (41.0)	0.26
Slapping	233 (52.1)	343 (54.4)	0.50
Kicking, pushing and punching	229 (36.5)	250 (39.8)	0.25
Use of deadly weapon against the women	210 (33.3)	217 (34.4)	0.72
Forcing women to have sexual intercourse when they do not want	260 (41.3)	266 (42.1)	0.82
Forcing women to engage in other sexual acts outside hetero vaginal sex. Oral sex, harassment.	223 (35.4)	213 (33.8)	0.59
Shouting/verbal abuse	221 (37.0)	226 (37.9)	0.81
Threat to life	189 (30.0)	201 (31.9)	0.51
Threat to loved ones	218 (35.2)	201 (32.4)	0.33
Humiliation in front of others	216 (34.7)	265 (42.6)	0.001
Withholding finances	138 (22.2)	161 (25.9)	0.15
Being ignored	150 (22.6)	165 (26.6)	0.35
Accusation of infidelity	230 (36.5)	237 (37.8)	0.73
Driving women out of the house	226 (35.9)	235 (37.3)	0.65
Restricting contact with family and friends	146 (23.3)	152 (24.2)	0.73
Restriction from attending health facilities without the permission of partner	116 (18.7)	126 (20.0)	0.62
Restriction of freedom to go out without permission by partner	112 (18.5)	126 (20.8)	0.34
Early marriage	153 (25.1)	166 (27.2)	0.41
Forced prostitution	92 (14.6)	99 (15.7)	0.63
Female genital cutting	79 (12.9)	119 (19.4)	0.002

There was generally marginal improvements in the responses of the women to types of domestic violence against women they knew, the changes were however not statistically significant for most of them except for humiliation in front of others and female genital cutting ($P<0.05$).

Table 5: Knowledge of predisposing factors of domestic violence against women pre and post intervention

Variables	Period of study n(%)		McNemar (p-value)
	Pre intervention	Post intervention	
Predisposing factors to domestic violence against women			
Unemployment	318 (56.3)	221 (51.3)	0.91
Financial problems	374 (60.4)	388 (62.7)	0.44
Lack of education	395 (63.5)	422 (66.0)	0.13
Suffered abuse as a child	184 (29.4)	185 (29.6)	1.00
Keeping late at night outside home	207 (33.1)	225 (35.9)	0.33
Extra marital affairs/infidelity	278 (44.4)	288 (46.0)	0.60
Types of friends/company one keeps	162 (25.9)	195 (31.2)	0.04
Infertility	202 (32.5)	209 (33.7)	0.72
Lack of submission of women to traditional role of women	153 (25.3)	178 (28.7)	0.20
Disobedience to partner/husband	0 (0)	114 (18.4)	0.07
Alcohol abuse	242 (39.0)	242 (39.0)	1.00
Drug abuse	126 (20.7)	130 (21.1)	0.94
Domineering partner	64 (10.5)	86 (14.4)	0.001
Disagreement in the house	90 (14.7)	127 (20.9)	0.006
Domineering extended family on either side	54 (8.8)	93 (15.2)	0.001
Immaturity	98 (16.0)	110 (17.9)	0.42
Male dominance	147 (23.9)	152 (24.8)	0.78
Religion	114 (18.2)	137 (21.9)	0.13
Culture	96 (15.8)	120 (19.3)	0.12

Table 5 showed the change/improvement in the responses about the predisposing factors to domestic violence against women following the intervention. Generally, there were marginal improvements in the proportion of the respondents' knowledge of the predisposing factors. Knowledge of variables such as Types of friends/company one keeps (P=0.04), Domineering partner (P=0.001), Disagreement in the house (P=0.006) and Domineering extended family on either side (P<0.001) showed statistically significant improvement following the intervention.

Knowledge of alcohol abuse as a risk factor for domestic violence depreciated after the health education.

Table 6: Association between socio-demographic characteristics of respondents and knowledge of types of domestic violence against women at Baseline

Socio-demographics	Knowledge of domestic violence against women n (%)		x^2 (p-value)
	Good knowledge	Poor knowledge	
Age groups (years)			
< 26	17 (28.3)	43 (71.7)	3.1 (0.22)
26 – 49	113 (25.1)	337 (74.9)	
>49	23 (18.4)	102 (81.6)	
Marital status			
Single	19 (33.3)	38 (66.7)	2.26 (0.04)
Presently married	95 (28.5)	240 (73.5)	
Separated/widowed/divorced	49 (20.0)	194 (80.0)	
Completed level of education			
No formal/vocational education	15 (22.4)	52 (77.6)	17.38 (<0.001)
Primary	18 (17.8)	83 (82.2)	
Secondary	35 (17.2)	169 (82.8)	
Tertiary	85 (32.3)	178 (67.7)	
Ethnicity			
Igbo	131 (25.1)	391 (74.9)	5.19 (0.07)
Yoruba	19 (24.7)	58 (75.3)	
Others	3 (8.2)	33 (91.7)	
Religion			
Christianity	144 (24.5)	443 (75.5)	0.81 (0.39)
Islam	9 (18.3)	39 (81.3)	
Type of marriage			
Monogamous	121 (23.7)	390 (76.3)	0.68 (0.43)
Polygamous	13 (19.4)	54 (80.6)	
Position in polygamous marriage			
1st wife	8 (53.3)	7(46.7)	17.07 (<0.001)
2nd wife	0 (0.0)	26 (100.0)	
3rd or later wife	5 (18.5)	21 (81.5)	

Duration in marriage (years)			
1 – 10	66 (21.6)	240 (78.4)	3.27 (0.20)
11 – 20	50 (28.9)	123 (71.1)	
>20	37 (23.7)	119 (76.3)	
Number of male children alive			
➢ None	20 (15.0)	113 (85.0)	7.30 (0.03)
1 – 4	101 (21.8)	366 (78.4)	
>4	2 (21.6)	33 (94.3)	
Number of female children alive			
None	21 (14.6)	123 (85.4)	5.84 (0.04)
1 – 4	102 (21.3)	378 (78.8)	
>4	0 (0.0)	11 (100.0)	

Table 6 revealed the relationship between the socio demographic characteristics of the respondents and their knowledge of types of domestic violence before the intervention. Proportion of women who had good knowledge of the types of domestic violence against women was greatest among those who were aged up to 26 years (28.3%) compared to other age groups interviewed. Single women had greatest proportion of those who had good knowledge (38.3%). Women who attained tertiary education had greatest proportion of knowledgeable persons on types of domestic violence (32.3%), unlike others with lower level of education. The Igbos had a slightly greater proportion of those with good knowledge relative to other ethnic groups. Women who were Christians had a greater percentage of those with good knowledge of domestic violence types before the intervention compared to Muslims. Those who had 1 – 4 children alive had the greatest proportion of knowledgeable persons [(21.8%) for males alive and (21.3%) for females alive] compared to their counterparts.

Highly significant statistical relationship existed between knowledge of types of domestic violence against women and marital status, educational level completed, and position in polygamous marriage ($P<0.05$). The relationship was also statistically significant with number of children alive ($P=0.03$ and $P=0.04$ for male and female respectively)

Table 7: Association between socio-demographic characteristics of respondents and knowledge of predisposing factors for domestic violence against women at baseline

Socio-demographics	Knowledge of predisposing factors to domestic violence against women n(%)		x^2 (p-value)
	Good knowledge	Poor knowledge	
Age groups (years)			
< 26	6 (10.0)	54 (90.0)	4.31 (0.12)
26 – 49	22 (4.9)	428 (95.1)	
>49	11 (8.8)	114 (91.2)	
Marital status			
Single	2 (3.5)	55 (96.5)	8.21 (0.02)
Presently married	31 (9.2)	304 (90.8)	
Separated/widowed/divorced	10 (3.7)	233 (96.3)	
Completed level of education			
No formal/vocational education	5 (7.5)	62 (92.5)	0.72 (0.86)
Primary	5 (5.0)	96 (95.0)	
Secondary	14 (6.9)	190 (93.1)	
Tertiary	15 (5.7)	248 (94.3)	
Ethnicity			
Igbo	39 (7.5)	483 (92.5)	FT (0.004)
Others	0 (0.0)	113 (100.0)	
Religion			
Christianity	39 (6.6)	548 (93.4)	(0.04)
Islam	0 (0.0)	48 (100)	
Type of marriage			
Monogamous	39 (7.6)	472 (92.4)	FT (0.02)
Polygamous	0 (0.0)	67 (100.0)	

Position in polygamous marriage			
1st wife	0 (0.0)	15 (100.0)	
2nd wife	0 (0.0)	26 (100.0)	
3rd or later wife	0 (0.0)	26 (100.0)	
Duration in marriage (years)			
1 – 10	22 (7.2)	284 (92.8)	2.02 (0.36)
11 – 20	11 (6.4)	162 (93.6)	
>20	6 (3.8)	150 (96.2)	
Number of male children alive			
➢ None	8 (6.0)	125 (94.0)	0.02 (1.00)
1 – 4	29 (6.2)	438 (93.8)	
>4	2 (5.7)	33 (94.3)	
Number of female children alive			
None	13 (9.0)	131 (91.0)	FT (0.20)
1 – 4	26 (5.4)	454 (94.6)	
>4	0 (0.0)	11 (100.0)	

FT = Fisher's Exact Test

Table 7 shows the relationship between socio demographic features of the respondents and their knowledge of the predisposing factors for domestic violence against women. Generally, there were very high proportion of the respondents who had poor knowledge of the predisposing factors. This was evident by the fact that 90.0% – 100% of them had poor knowledge across all the respective socio demographic variables. However, there were statistically significant associations between the knowledge of the predisposing factors and marital status (P=0.04); ethnicity (P=0.004) and type of marriage (P=0.02).

Discussion

The study reveals a high prevalence of domestic violence against women among female traders in Abakaliki, Nigeria, with a lifetime prevalence of 37.8%. The most common reason for domestic violence is fear of stigma and the fear of beating. Financial issues are the most common triggers, leading to problems like lack of food, school fees, frequent fights, and even death. Predisposing factors for domestic violence include lower social class, alcohol consumption, increasing age disparity between couples, and spouse unemployment.

There was no statistical significance in the knowledge of types of domestic violence, suggesting that the patriarchal system in Nigeria favors domestic violence.

The study also found that exposure, education, ethnicity, wealth index quintile, and level of education, ethnicity, economic power, and awareness all influence the acceptance of domestic violence.

Gender education and capacity building are essential for achieving national gender policy objectives, such as promoting women's human rights and addressing sexual and gender-based violence.

Conclusion

The impact of health education on the knowledge of the types and predisposing factors, for domestic violence against women were examined. This study revealed that many female traders in Abakaliki do not have proper understanding about the type and predisposing factors for domestic violence against females. However, the post health education on the knowledge of the types and predisposing factors for domestic violence against women showed a greater improvement. Therefore, health education had a significant positive impact on female traders in Abakaliki's in understanding the types and predisposing factors, for domestic violence against women

Recommendations

This study's conclusions led to the following recommendations for enhancing female traders' understanding of the risk factors, repercussions, and preventative strategies for domestic violence in Abakaliki.

(1) The government and civil service organizations (CSO) must actively participate in stepping up aggressive health education and public awareness campaigns on domestic abuse, particularly among Abakaliki's female traders.

(2) Increasing the awareness of domestic violence prevention strategies among Abakaliki's female traders should be a top concern.

(3) The government ought to establish a special court to deal with matters pertaining to domestic abuse and a toll-free number for reporting such incidents.

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Esthetical approval

Ethical clearance for this study was obtained from the research and ethics committee of Ebonyi State University Abakaliki. Permission to carry out the study was also obtained from the executives of market traders association with the code: **ABSU/DRIC/UREC/Vol.05/077**

Conflict of interest
The authors declare no conflict of interest

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References

1. 1 Flury M, Nyberg E, Riecher-Rossler A, Domestic Violence Against Women: definitions, epidemiology, risk factors and consequences, Swiss Med Wkly.2010 Sept 2; 140: w 13099.

2. Heise L., Garcia-Moreno C. Violence by intimate partner world report on Violence and Health. Pan-American organization 4, 4.1-3

3. Ormon K, Torstensson –Levander M, Vulnerable and without protection ; lifetime experiences of abuse and its influence on mental ill health open journal of Nursing vol 4 no 1 Jan 22 2014.

4. Mala Htun, Laurel Weldon S, The civic origins of progressive policy combating violence against women in global perspective. American political science review 2012; 106:548-569

5. United Nations Declaration on the elimination of violence against women A/RES/104 85th plenary meeting 20th Dec 1993 .Declaration48/104.

6. Fawcett B. Domestic violence a global perspective. Hong Kong J. of social work 2007;41, 25-37

7. Aihie ON, Prevalence of domestic violence in Nigeria, implications for counselling. Edo journal of counselling 2009 May; 2(1)

8. Benebo FO, Schumann B, Vaezghasemi M. Intimate partner violence against women in Nigeria; a multilevel study investigating the effect of women's status and community norms. BMC Women's Health 2018;18, Article number: 136.

9. Shrivastava PS, Shrivastava SR. A study of spousal domestic violence in an urban slum of Mumbai int J Prev Med 20B 4 P27-32.

10. WHO, violence against women, key facts Nov 2017.

11. Das BN, Mohandas A, Killi B. prevalence and associated factors of domestic violence amongmarried women in an urban slum in south India. Journal of family medicine and primary care. P 1006-1011 March 2022 DOI: 10.4103/jfmpc. Jfmpc-133-4.

12. CDC. Intimate partner violence fact sheet [cited Oct, 2008] Available from https://www.cdc.gov/violenceprevention/intimatepartnerviolence/index.html

13. Catalano R, Lind S, Rosenblatt A, Novaco R., Coker A L. (2003) Research into the economic antecedents of violence. American journal of community psychology . https://pubmed.ncbi.nlm.nih.gov/14570434

14. Ravneet K, Suneela G. Addressing domestic violence against women: an unfinished agenda. Indian journal of community medicine 2008 Apr;33(2):73-76.

15. Hamel J. (2017) The Evolution of Evidence-Based Treatment for Intimate Partner Abuse, 7 (3), 226 – 276 paper 8.

16. Hossain A. (2016) The impact of domestic violence on women: A case study of Rural Bangladesh. Sociology and criminology, 4:135-142

17. World Health Organization. Understanding and addressing violence against women. Pan American health organization 2016.

18. Esteal P, Carlin A. Domestic violence, property and family law in Australia. International journal of law, policy and family 2018 Aug.;32(2):204-229.

19. Dillon G, Hussain R, Loxton D, Rahman S. Mental and physical health and intimate partner violence against women: A review of the literature. International journal of family medicine volume 2013 (2013) article ID 313 909, 15 pages.

20. World Health Organisation. Global and regional estimates of violence against women: prevalence and health effects of intimate partner violence and non-partner sexual violence. Geneva: World Health Organization 2013.

21. This Day (2011, September 20). Domestic violence: When law fails to protect.

22. Taghisi M H, Estebsari F, Dastoorpour M, Jamshidi E, Jamalzadeh F, Latifi M. The impact of educational intervention based on empowerment model in preventing violence against women. Iran Red Crescent Med J. 2014 Jul; 16(7): e 14432.doi: 10. 5812/ircmj. 14432. Epub 2014 July 5.

23. Anderson J N, "Effects of education on victims of domestic violence" (2015) Walden Dissertations and doctoral studies 345.

24. Zaher E, Keogh K, Ratnapalan S. Effect of domestic violence training 2014 Jul; Can Fam Physician. 60(7): 618-624.

25. Arora S, Rege S, Sarah MM, Knowledge attitude and practices of heaithcare providers trained in responding to violence against women . A pre and post interverntion study.2001BMC public health 21, article no 1973.

26. West A, Wandreu M. L., Intimate partner violence A model for predicting interventions by informal helpers. J. Interpers violence 2002;17(9):972-86.

27. Dekeseredy WS, Understanding Women Abuse in Canada. Crime, Justice and Social Democracy pp. 175-185

28. The Holy Bible New King James Version Proverbs 22:6

29. Tuner W, Hester M, Broad J, Szilass E, Feder G, Drinkwater J et al. Interventions to improve the responses of professionals to children expose to domestic violence and abuse: A systematic review. Wiley online library volume 26 issue 1 19-39.

30. Ebrahim B, Arash T B, Marzieh N, Babaee E, Tehrari B A, Asadi – Alibadi M et al Population Based Approaches to prevent Domestic Violence against women using a systematic review. Iranian Journal of Psychiatry 2021 Jan 16(1) 94 – 105

31. Khadivzadeh T, Erfanian F, Comparison of Domestic Violence during pregnancy with the pre-pregnancy period and its relating factors. The Iranian Journal of Obstetrics, Gynaecology and Infertility. 2011; 14(4): 47-56

32. Marszalek J. The 30 million dollars campaign against domestic violence. The courier – mail April 26 2015 1pm

33. Scott E. Carrell and Mark Hoekstra. Family Business or Social Problem? The Cost of Unreported Domestic Violence. Journal of Policy Analysis and Management. Vol. 31 No. 4 (2012) pp. 861 – 875 (15 pages) published by: Wiley

34. Nithya J G, Principles of sample size calculation Indian J. ophthalmol 2010 Nov-Dec., 58 (6): 517 -518

35. Dupont W D, Plummer D, Jr. Power and Sample size calculations for studies involving linear regression. A review and computer programme. Control clin Trials 1990 Apr; 11(2): 116-28

36. Bahati C. Izabayo J. Munezero P. Niyonsenga J. Mutesa L. Trends and correlates of intimate partner violence (IPV) victimization in Rwanda ; results from the 2015 and 2020 Rwanda demographic health survey (RDHS 2015 and 2020) 2022; 22: 368.