

Factors Influencing The Increase in Violence Against Women: A Systematic Review

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ABSTRACT

Background: Violence against women is a global public health problem, with an estimated one in three women experiencing physical, emotional, or sexual violence. Approximately one in three women worldwide have experienced physical or sexual violence. Intimate partners have the right to beat their female partners, violence experienced by women is often underreported.

Purpose: to describe the causal factors that contribute to violence against women.

Methods: Systematic review method, data sources, study selection, search, eligibility criteria, data collection, and literature taxonomy. These articles were published over a 6-year period from 2018 to 2023 with selection using PRISMA. the results found 12 articles that had been studied extensively to map the research area.

Results: 61 variables consisting of two parts, namely demographic characteristics and factors that contribute to the cause were studied in the article. Based on the results of the article analysis, it was found that the dominant factors studied, and had a significant relationship to the occurrence of violence against women included: 1) age; 2) women's education; 3) place of residence; 4) family income; and 5) women's work.

Conclusion: Based on the findings, the dominant factors are very important to be followed up in further research with an artificial intelligence (AI) approach using machine learning, which is an interdisciplinary collaboration, especially in the field of women's reproductive health, in line with the emphasis of the digital era on the use of AI.

Keywords: artificial intelligence, demographic characteristics, violence against women, machine learning

Received November 10, 2024; Revised December 12, 2024; Accepted January 3, 2025

DOI: <https://doi.org/10.30994/jnp.v8i2.581>



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BACKGROUND

Women's rights are part of the indicators of the goals regarding gender health. Gender equality is one of the targets that have been set in the world development goals known as the targets to be achieved by 2030, namely reducing violence against women and gender equality (WHO, 2021). WHO, (2021) also stated that physical and sexual violence against women has reached epidemic levels and affects more than a third of women globally. A study recently released by WHO shows that violence against women is widespread and widespread, penetrating various fields and all income levels in society. Violence against women (VAW), or commonly called gender-based violence and sexual and gender-based violence (SGBV), is an act of violence that is primarily committed against women or girls. This violence is often considered a form of hate crime, committed against women or girls specifically because they are women, and can occur in various forms (Reshma, Dharani, Rani, (2021). The study found that one in three women in the world will experience physical or sexual violence in their lifetime, perpetrated by someone they know, be it a husband, boyfriend, family member, or friend. The report states that women of all ages, both young and old, are vulnerable to violence. Many studies have examined further related to violence against women, especially regarding the things that contribute to the increase in violence. One of the factors that contribute to the incidence of violence against women is the demographic characteristics of women and their partners. These demographic characteristics are very important to know, so that interventions can be carried out later, so many researchers are conducting more in-depth research on these demographic characteristics. Literature reviews are increasingly being applied in medical research, examples of the use of logistic regression in medicine include examining factors that predict the cause of violence against women, whether there will be improvement or not after intervention, the presence or absence of a disease in relation to various factors. Several studies have aimed to explore the effects and relationships between several predictors, to determine which potential predictors are actually important and to determine whether the new exploration adds to the predictive validity of existing models. Based on this, this study will present the findings of existing research based on the analysis of articles related to the demographic characteristics of women victims of intimate partner violence which are factors influencing increased violence against women.

OBJECTIVE

The aim of the research is to analyze the factors influencing the increase in violence against women.

METHODS

The systematic literature review protocol includes: defining the research question, conducting a primary study search, establishing selection criteria using the PRISMA method, determining quality assessment procedures, and defining data extraction strategies.

Search Strategy

Literature search using four databases: ScienceDirect, Scopus, PubMed, and IEEE. These databases were chosen because they have a large collection of public health articles. Utilization of these databases allows a comprehensive understanding of the Factors that cause the increase in violence against women. The search began by identifying relevant keywords. Terms ('violence against women "OR" domestic violence "OR" women's failure ') AND ('Artificial Intelligence "OR" Machine Learning '). We conducted a search based on these keywords because it was based on further research from our systematic review on Predicting Violence Against Women with Machine Learning, so based on the search for articles we

found, we focused more on research on the factors that cause the increase in violence against women that need to be discussed further and in detail.

Study Selection

The process of selecting articles in the selected databases consists of four stages using the PRISMA model. First, a question that is in accordance with the research topic is formulated. Second, articles published in the last five years. Third, articles available in full paper form and written in English. Finally, articles are sorted according to their relevance to the research. The eligibility criteria for the study include:

1. Articles must be published in the last six years (2018-2023).
2. Articles must be in English and published in journals or conference papers.
3. The full text of the article must be accessible.
4. The main focus of the article must be on domestic violence, which can cover topics such as:
 - a. Violence against Women;
 - b. Domestic Violence; and
 - c. Online Violence.

Articles must also explore the application of ML or AI in one or more of the following aspects:

1. Reviewing research related to violence against women.
2. Proposing background methods for studying violence against women.
3. Demographic characteristics of violence against women.
4. Articles that discuss the scope of violence against women.

All research articles that met the specified criteria are shown in Figure 1. The main research areas found in these articles were related to domestic violence and demographic characteristics, which were identified through an extensive literature survey. Articles that did not fall into these main focus areas were excluded from the search list. The research flow using the PRISMA model is as follows:

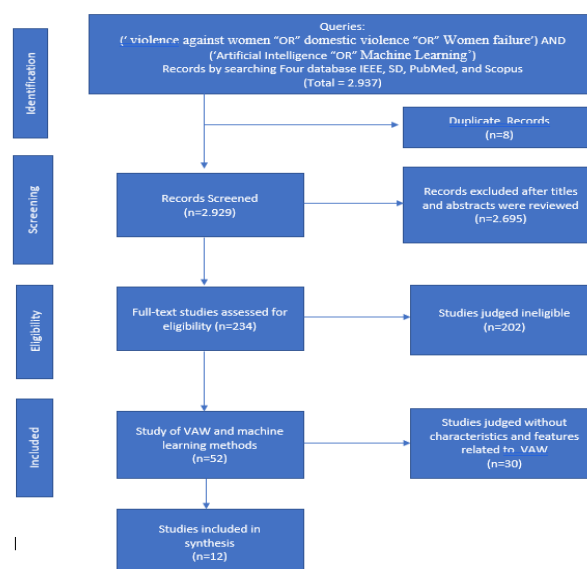


Figure 1. PRISMA Approach of the Study

Table 1. Result of study assessment for systematic review using the jBI critical appraisal tools

Study ID	Assessment criteria											Result
	1	2	3	4	5	6	7	8	9	10	11	
(McDougal et al., 2021)	✓	✓	✓	✓			✓	✓				6/8 (75%)
(Dehingia et al., 2022)	✓	✓	✓	✓	✓	✓	✓	✓				8/8 (100%)
(Deo et al., 2019)	✓	✓	✓	✓	✓	✓	✓	✓				8/8 (100%)
(Ebert & Steinert, 2021)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	11/11 (100%)
(Han & Choi, 2021)	✓	✓	✓	✓	✓	✓	✓	✓				8/8 (100%)
(Raj et al., 2021)	✓	✓	✓	✓	✓		✓	✓				7/8 (87,5%)
(M. M. Hossain et al., 2021)	✓	✓	✓	✓	✓	✓	✓	✓				8/8 (100%)
(Saboya et al., 2019)	✓	✓	✓	✓	✓	✓	✓	✓				8/8 (100%)
(Lannon et al., 2021)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	11/11 (100%)
(Manouchehri et al., 2022)	✓	✓	✓	✓	✓	✓	✓	✓				8/8 (100%)
(Salehi et al., 2023)	✓	✓	✓	✓			✓	✓				6/8 (75%)
(Nuwabaine et al., 2023)	✓	✓	✓	✓			✓	✓				6/8 (75%)

RESULTS

The research results based on the analysis of the articles found are described in several tables consisting of 1) research characteristics; 2) description of demographic characteristics and traits; and 3) summary of demographic characteristics and traits.

Table 2. Study characteristics

Author	Years of publish	Country	Data Source	Sample Size	VAW Object	Design or method of analysis
(McDougal et al., 2021)	2021	India	National Family Health Survey (NFHS) 20 January 2015 and 4 December 2016	66.013	women	Cross-sectional, Observational design precludes causal inference.
(Dehingia et al., 2022)	2022	India	Nationally representative health survey 2015-2016 Co	6000 variables	women	Cross sectional
(Deo et al., 2019)	2020	India	Questionnaire, primary data	385 married women	women	Cross-sectional
(Ebert & Steinert, 2021)	2021	Germany	Online Survey	3818 respondents	Women	Cohort
(Han & Choi, 2021)	2021	Korean	Domestic violence survey in Korea 2016	1.272 Men 2.689 Women	Women	Cross-Sectional
(Raj et al., 2021)	2021	India	India's nationally representative	4000+ variables	Women	retrospective Cross-Sectional

			National Family Health Survey 4 2015-2016			
(M. M. Hossain et al., 2021)	2021	Bangladesh	Questionnaire, primary data	511 family	Domestic violence (women and men)	Cross Sectional
(Saboya et al., 2019)	2019	Peru	National Institute of statistics and Informatic of Peru	366558	Women	retrospective Cross-Sectional
(Lannon et al., 2021)	2021	US	Online advertisements and research participants registries Primary data	47	Women	retrospective Cohort
(Manouchehri et al., 2022)	2022	Iran	Questionnaire, primary data	275 married women with multiple sclerosis (MS)	Women	Cross-Sectional
(Salehi et al., 2023)	2023	Iran	Twitter & Instagram	53.105 tweets & captions	Women	Cross-Sectional
(Nuwabaine et al., 2023)	2023	Uganda	Questionnaire, primary data	1.700	Sexual Violence (Women)	retrospective Cross-Sectional

Table 3. Description of demographic characteristics

Author	Analysis Method	Demographic Characteristic/Feature
(McDougal et al., 2021)	Machine Learning: 1. L- 1 regularised regression or lasso. 2. L- 2 regularised regression or ridge. 3. Neural network modelling	1. Age 2. Education (none, primary, secondary, higher) 3. Household wealth quintiles (poorest, poorest, middle, rich, richest) 4. Religion (Muslim, Hindu and others) 5. Caste (SC/ST, OBC, and other castes/general) 6. Place of residence (rural and urban) 7. Region of residence (north, west, south, northeast, east, centre) 8. Frequency of eating fruit: occasionally. 9. Wealth index: medium 10. Knowledge about HIV: healthy looking people can be infected with HIV: yes. 11. Frequency of eating dark green leafy vegetables: every day. 12. Husband/partner's occupation (group): agriculture.

		13. Knowledge about HIV: how to avoid HIV/AIDS including using condoms.
		14. Knowledge about HIV: HIV is transmitted through breast milk: yes.
		15. The parties who usually decide on the respondent's health services: the respondent and husband/partner.
		16. Who usually decides on large household purchases: respondents and husband/partner
		17. Frequency of listening to the radio: not at all.
(Dehingia et al., 2022)	machine learning: 1. iterative thematic analysis 2. Least Absolute Shrinkage and Selection Operator (lasso) by neural network model qualitative research methods	1. Age 2. Literacy 3. Education 4. Household Wealth Quintile 5. Religion 6. Caste 7. Place of Residence 8. Region of Residence 9. Decision making and freedom of movement. 10. women's salary
(Deo et al., 2019)	Chi-Square (univariate and multivariate)	1. Wife education 2. Husband education 3. Socio-economic status 4. Wife occupation 5. Alcohol consumption among husband
(Ebert & Steinert, 2021)	Multivariable logistic regression	1. Education 2. Occupation 3. Financial impact of pandemic 4. Financial worries 5. Mental health 6. Partner's mental health 7. Region
(Han & Choi, 2021)	Multiple logistic regression	Personal history: 1. Witnessing parents' violence in childhood 2. Childhood maltreatment by parents Micro-system 1. Structure of decision making with partner 2. Age (years) Exo-system 1. Education level 2. Household income (1,000 KRW) 3. Occupation type

		Macro-system
		1. Attitude to gender roles
		2. Awareness of neighborhood and community
		3. Attitude to the -IPV
		4. Awareness of -IPV-related laws and policies
		5. Awareness of support facilities
(Raj et al., 2021)	machine learning:	
	1. Iterative Thematic Analysis (ITA)	1. Current age
	2. Least Absolute Shrinkage and Selection Operator (lasso) by neural network model	2. Years of schooling
		3. Marital status
		4. Wealth index status
		5. Place of residence
		6. Region of residence
		7. Told someone or sought help from anyone (among those who experienced sexual violence)
		8. Person from whom the victim sought help (among those who experienced sexual violence)
		9. Relationship to per- petrator for first instance of sexual violence (among those who experienced sexual violence)
		10. Current or former boyfriend/husband
(M. M. Hossain et al., 2021)	Machine Learning	4. Age
	1. Random Forest	5. Gender
	2. Logistic regression	6. Marital status
	3. Naïve bayes	7. Respondent education
		8. Profession
		9. Family type
		10. Number of family members of the respondent
		11. Number of earners
		12. Head of Family
		13. Religion
		14. Residence location
		15. Wealth status
		16. Income before coronavirus
		17. Income after coronavirus
		18. Lost job during coronavirus
(Saboya et al., 2019)	Machine Learning (three supervised learning models):	1. Age
	1. Random Forest Classifier,	2. Region
	2. Decision Tree Classifier,	3. Type of Place of Residence
	3. Extra Trees	4. Ethnicity
		5. Number of Household members
		6. Education Level
		7. Literacy
		8. Wealth Index

Classifier		
(Lannon et al., 2021)	Machine learning: 1. Gradient Boosting Machine (GBM) 2. SF-MPQ	Sociodemographic: 1. Age, 2. Race, ethnicity, 3. Height, 4. Weight, 5. Marital status, 6. Household income, and 7. Years of education were collected through self-report. Predictors of pain scores Coping Disability Psychiatric diagnosis/symptoms PTSD/trauma Executive Function Neuroendocrine secretion Physiological stress response Pain
(Manouchehri et al., 2022)	Chi-square Fisher exact Multiple logistic regression	Age No. of children Income Husband income Husband occupation Occupation Education Level Husband Education Level Family support level
(Salehi et al., 2023)	Machine Learning: Naïve Bayes Logistic regression Support Vector Machine (SVM) Random Forest Decision Tree	Narration of abuse Domestic violence
(Nuwabaine et al., 2023)	Multivariable logistic regression	Age Education level Working status Parity Justified beating. Health insurance Religion Wealth index Residence Region Household size Sex of household head

Exposure to radio
 Exposure to television
 Exposure to newspapers
 Economic empowerment
 Healthcare decision-making
 Husband/partner's age
 Husband/partner's education
 Husband/partner's frequency of getting drunk.
 Husband/partner's working status

Table 4. Summary of demographic characteristics and features

No	Demographic Characteristics and Features	Article											
		1	2	3	4	5	6	7	8	9	10	11	12
1	Age	✓	✓			✓	✓	✓	✓	✓	✓		✓
2	Education/wife	✓	✓	✓	✓	✓		✓	✓		✓		✓
3	Household wealth quintiles	✓	✓							✓			
4	Religion	✓	✓					✓					✓
5	Caste	✓	✓										
6	Place of residence	✓	✓				✓		✓				✓
7	Region of residence	✓	✓		✓		✓	✓	✓				✓
8	Frequency of eating fruit	✓											
9	Wealth index	✓				✓	✓	✓	✓				✓
10	Knowledge about HIV	✓											
11	Frequency of eating dark green leafy vegetable	✓											
12	Husband/partner's occupation (group)	✓									✓		✓
13	Knowledge about HIV	✓											
14	The parties who usually decide on the respondent's health services: the respondent and husband/partner.	✓											
16	Who usually decides on large household purchases	✓											
17	Frequency of listening to the radio	✓											
18	Literacy		✓						✓				
19	Decision making and freedom of movement		✓										
20	women's salary		✓								✓		
21	Husband education			✓							✓		✓
22	Sosio-economic status			✓									
23	Wife occupation			✓	✓	✓		✓			✓		✓
24	Alcohol consumption			✓									

	among husband			
25	Financial impact of pandemic	✓		
26	Financial worries	✓		
27	Mental health	✓		
28	Partner's mental health	✓		
29	Witnessing parents' violence in childhood		✓	
30	Childhood maltreatment by parents		✓	
31	Structure of decision making with partner		✓	
32	Years of schooling		✓	✓
33	Marital status	✓	✓	✓
34	Gender		✓	
35	Family type		✓	
36	Number of family members		✓	✓
37	Number of earners		✓	
38	Head of Family		✓	
39	Income before coronavirus		✓	
40	Income after coronavirus		✓	
41	Lost job during coronavirus		✓	
42	Race/Ethnicity		✓	✓
43	Height		✓	✓
44	Weight		✓	✓
45	No. of children			✓
46	Husband income			✓
47	Family support level			✓
48	Narration of abuse			✓
49	Domestic violence			✓
50	Parity			✓
51	Justified beating			✓
52	Health insurance			✓
53	Household size			✓
54	Sex of household head			✓
55	Exposure to radio			✓
56	Exposure to television			✓
57	Exposure to newspapers			✓
58	Economic empowerment			✓
59	Healthcare decision-making			✓
60	Husband/partner's age			✓
61	Husband/partner's			✓

frequency of getting drunk.

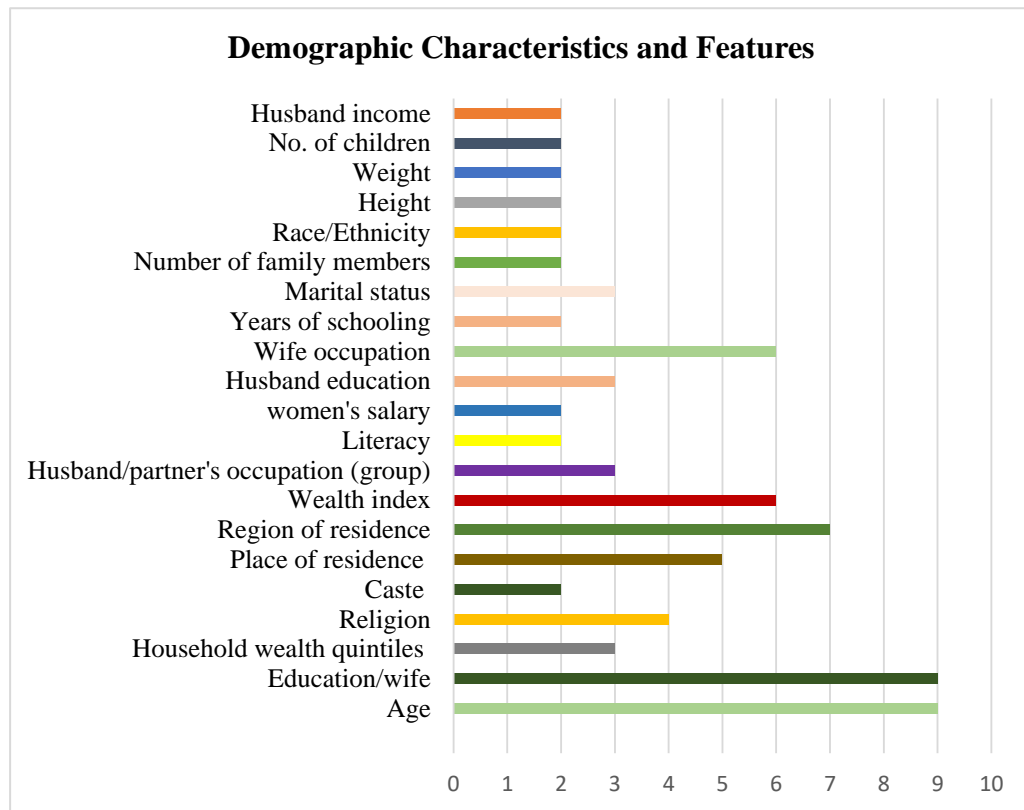


Figure 2. Frequency distribution of demographic characteristics and features

DISCUSSION

The results of the analysis of the previously presented articles contained 61 variables consisting of two parts, namely demographic characteristics and characteristics studied in the article. Characteristics that are not included in the characteristics include attitudes and concerns that are not directly related to incidents of violence against women, but can contribute to the occurrence of violence against women. The results of previous research by Young Ran, Anita Raj, and Edward Lannon. Meysam Salehi explained more about domestic violence which describes the fear of sexual violence committed by perpetrators against women as victims. There was a case of fraud committed by a father, but after being brought to court, the victim (the perpetrator's child) did not want (the perpetrator's father) to be imprisoned, even though the victim was suffering from a sexually transmitted disease. This condition illustrates that there are many considerations for victims to respect the perpetrator, one of which is that the perpetrator is someone close to the victim, many of whom are blood relatives. This condition is one of the things that contributes to the recurrence of violence against women because there is no deterrent effect for the perpetrator. Another narrative about violence against women is the discovery of the phenomenon of several women who are victims of violence and live in suburban areas who think that lawyer fees are expensive, so they don't think about hiring a lawyer, so the solution is to file a complaint and get out of the situation together with a group of volunteer lawyers who are ready to accept defense for the victim's case free of charge. Women who report acts of violence most often make initial contact with police officers, therefore, the attitude of the police is very important in

facilitating a sense of security and comfort for women who have experienced being victims, realizing this problem, several countries have implemented special police stations for women, namely police stations that specifically handle certain crimes, such as sexual violence, harassment, domestic violence committed against women (Reshma, Dharani, Rani, 2021).

The results of the article analysis in Figure 2 show that the five most widely studied causes of violence against women include: 1) age; 2) women's education; 3) area of residence; 4) family income; and 5) women's work. This is also in accordance with the results of research by Young Ran, MD Murad Hossain, and Elham Manouchehri that the five characteristics have a significant relationship with the incidence of violence against women. Deo., et al (2019) stated that low levels of education, socio-economic status, and employment status of respondents contributed significantly, so that women's empowerment to the extent of education and overall socio-economic development can reduce domestic violence. These new factors contributing to violence are an important pathway to complement and add to existing approaches to violence prevention, and the novel application of machine learning algorithms combined with qualitative thematic coding used in this analysis offers one such pathway. Thus, there may be an opportunity to reach women in health meeting sessions, by targeting them with multi-pronged empowerment programs, health and violence support, which support a more holistic approach to women's well-being (Mc Dougal., et al, 2021). Based on the results of the article analysis, several factors were found to have a significant relationship to the occurrence of violence against women, (Mc Dougal, Nabamalika, Richa Dheo, Young Ran, Md. Murad Hossain, Elham Manouchehri, and Lilian Nuwabaine) which are explained in table 5 below:

Table 5. Corelation Fitures' of Violence Against Women

Author	Corelation figure
(McDougal et al., 2021)	<ol style="list-style-type: none"> 1. experiences of/exposure to violence, 2. sexual behaviour, 3. decision making and freedom of movement, 4. sociodemographic, 5. access to media, 6. health knowledge, 7. health system interaction, 8. partner control, 9. economic agency, 10. reproductive and maternal history, and 11. health status.
(McDougal et al., 2021)	<p>Identified themes associated with help-seeking behaviour included experience of injury from violence, husband's controlling behaviour, husband's controlling behaviour, in this case one of the husband's controlling behaviours is excessive financial control, as stated by (Syahira et al., 2022) that if someone takes away another person's right to financial freedom, then that's right called financial abuse. As the most complex form of abuse, financial control, exploitation, or sabotage are common categories financial abuse. Besides that, husband's consumption of alcohol also very influential, according to the results of research by (Coll et al., 2021) that alcohol use by partners is the strongest</p>

marker of vulnerability to violence against women with the prevalence of VAW for the most vulnerable being 43% compared to 21% in the overall sample. Being currently separated from husband. Themes related to women’s access to social and economic resources, such as women’s employment, and receipt of maternal and reproductive health services were also noted to be related factors. We observed similarity in correlates for seeking help from anyone, vs from formal sources, with a greater focus on women being separated for help-seeking from formal sources.

- (Deo et al., 2019)
1. low level of education,
 2. Low socio-economic status, and
 3. employment status of the respondents
 4. education level and
 5. alcohol use by their husbands.

- (Han & Choi, 2021)
1. Witnessing parents’ violence in childhood
 2. Childhood maltreatment by parents
 3. Education level
 4. Household income (1,000 KRW)
 5. Occupation type
 6. Attitude to gender roles
 7. Attitude to the -IPV

- (M. M. Hossain et al., 2021)
1. Age
 2. Marital Status
 3. Education
 4. Profession
 5. Wealth Status
 6. Residence Location
 7. Income before Coronavirus
 8. Income after Coronavirus
- Lost Job in Coronavirus

- (Manouchehri et al., 2022)
1. income
 2. spouse’s income
 3. Participant’s job
 4. Participant’s education

In logistic regression, the overall rate of domestic violence was higher in participants with education less than a diploma than in participants with a diploma (P = 0.014) and participants with a university education (P = 0.016).

- (Nuwabaine et al., 2023)
1. experienced sexual violence.
 2. Justified beatings.
 3. not having health insurance
 4. no involved in health care decision making.

-
5. having a husband/partner with primary education
 6. or have no education.
 7. have a husband/partner.
 8. who occasionally
 9. drunk was tested positive.
 10. related to sexual violence.
 11. waver, women from male-headed households.
 12. less likely to experience sexual violence.
-

Based on table 5, it is known that the results of this systematic study show that there are 5 factors that cause an increase in violence against women because they have a significant relationship, including: 1) age; 2) women's education; 3) area of residence; 4) family income; and 5) women's work. The first factor is age. Age is often associated with incidents of violence against women because of various social, cultural, psychological, and economic factors that can affect the level of risk and type of violence experienced by women at certain stages of life. This is closely related to several factors that play a role, including women's dependence on men, women feel they are not independent enough to be able to provide a true attitude, so that starting from attitudes, behavior, and decisions taken as if everything depends on men or their partners, even though wise decisions can be taken together with partners, this is what can ultimately trigger violence against women. In addition to dependence, other factors that influence are unequal gender roles, life changes such as divorce that can occur at a young age, biological and psychological factors, power gaps, lack of socialization, and isolation and limited mobility. Gender differences are one of the factors influencing violence against women. Rodríguez-Rodríguez et al., (2020); Azim Ismail et al., (2022) stated that gender-based violence is a public health problem that requires high attention from the community and government by using all available resources to eliminate discrimination and violence against women and girls. The second and third factors are the level of education, and the area of residence that can contribute to violence against women. The place of residence that contributes to this is women who live in rural areas or on the outskirts of the city. This contribution can be influenced by various factors, namely social, economic, cultural, and structural factors. Socio-culture in society often positions men as superior beings and women as weak inferior beings. Cultural values and norms embedded in society in this case can lead to integration between men and women, so that moving away from this integration is one of the factors that causes someone to commit acts of violence against women. The norms that apply in society also influence it, such as it is not appropriate for a wife to oppose her husband, therefore a husband can do anything without any prohibition. Culture plays a very strong role in life in rural communities, so it is very important for community leaders to gather in order to place the culture in the community environment in a position that does not have a negative impact, especially on women, because until now there are still many cultural traditions in society that contribute to the emergence of violence against women and are considered normal. In response to this, the participation of various parties across sectors is very much needed to jointly create attention and understanding with the right solutions to overcome the culture that still applies in society. In addition to culture that plays a role in the residential environment, formal and informal knowledge in rural areas is also very influential. Although currently sources of information about violence against women can be accessed online, not all people in rural areas are exposed to these sources of information, resulting in a lack of public knowledge regarding violence against women. The fourth and fifth factors, namely family income and women's work, also contribute to incidents of violence against women. This is in accordance with the results of a study by Coll et al., (2021) which states

that 1 in 4 women experience violence against women, especially by their partners, occurring in women in low- and middle-income countries.

This approach builds interdisciplinary collaboration, especially in the field of women's reproductive health, in line with the emphasis of the digital era on the use of AI. This strategic alignment is evident in various articles ((Redondo et al., 2023), (Zurnetti & Muliati, 2022), (Philbrick et al., 2021), (Ds et al., 2021), (Dharani et al., n.d.), (Bello et al., 2020), (M. E. Hossain et al., 2020). One approach through artificial intelligence is to use machine learning, artificial intelligence approaches can be applied to predict incidents of violence against women with precise accuracy using machine learning ((Escobar-Linero et al., 2023), (Karystianis et al., 2021), (Guggisberg, 2018), (Philbrick et al., 2021), (Reza et al., 2021), (Ds et al., 2021)). In the framework of artificial intelligence, the important point lies in the device that can accurately predict violence against women through the application of machine learning. Crime prediction will help law enforcement in developing policies to prevent crimes against women and take proactive measures to reduce crime (Ds et al., 2021). With these five factors, prevention and intervention efforts can be designed to address violence against women with various methodological approaches that will ultimately be applied as steps in intervention programs to prevent violence against women, including education, awareness raising, social assistance, legal protection, and mental health support for women so that they can be more prosperous and healthy.

CONCLUSION

Violence against women has always been a current issue in women's health issues almost all over the world. Therefore, the factors that influence these cases are very urgent and important to study. Significant factors that cause violence against women are age, women's education, area of residence, family income and women's work. The findings of this study are very important to be followed up in further research using other methods in order to find out more quickly and precisely what features can predict incidents of violence against women using an artificial intelligence approach. This feature is expected to reduce mortality and morbidity from violence against women and girls in the future.

ACKNOWLEDGMENTS

Thank you to the Indah Banjarmasin Foundation, Sari Mulia University, and the Institute for Research and Community Service at Sari Mulia University.

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