Assessment of domestic violence and its associated factors among ever-married reproductive-age women in Cameroon: a cross-sectional survey

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Abstract

Background: Domestic violence (DV) against women is a global issue that affects women in all countries and is a significant contributor to their poor health. Women who have experienced DV, in particular, suffer from the gynecological, nervous system, and stress-related issues. Despite such devastating implications, there is a paucity of data on the prevalence of DV and its associated factors among married reproductive-age women in Cameroon.

Method: The data were analyzed by using STATA version 14 from a demographic and health survey conducted in Cameroon in 2018. Both bivariable and multivariable logistic regression analyses were done. Statistical significance was determined using a p-value of less than 0.05 and a 95% confidence range.

Result: A total of 4,903 ever-married women were included in the study. The mean age ± standard deviation, of the participants was 31.3 (±8.4) years with an age range of 15–49 years. The prevalence of DV among ever-married Cameroonian women was 30.5% with 95%CI (29.3%, 31.8%). Women's educational attainment (higher educational level) (AOR = 0.58, 95% CI (0.37, 0.92), p value = 0.02), Husband’s educational level (husbands who attended primary educational level (AOR = 1.30, 95% CI (1.01, 1.68), p value = 0.04), a woman who had media exposure regarding DV ( AOR = 0.83, 95% CI (0.0, 0.99), p value = 0.04), a woman whose husband drinks alcohol (AOR = 3.00, 95% CI (2.56, 3.53), p value < 0.001), and the region where the women reside (center without Yaoundé (AOR = 2.48, 95% CI (1.75, 3.52), p value < 0.001), west (AOR = 1.49, 95% CI (1.05, 2.11), p value = 0.02), South (AOR = 1.89, 95% CI (1.31, 2.72), p-value = 0.001), and Yaoundé (AOR = 1.65, 95% CI (1.14, 2.39), p value = 0.009) were factors that were significantly associated to DV committed by a husband in the previous 12 months against ever-married women.

Conclusion: The present study revealed that the prevalence of DV among ever-married women in Cameroon is high. Women's educational level, husband’s educational level, husband's alcohol drinking status, women's exposure to mass-media about DV, and the region where the woman resides in the country were factors significantly associated with DV.

Keywords: Cameroon, Domestic violence, Married women

Introduction

Domestic violence (DV) is defined as the intentional use of physical force or power, whether threatened or actual, against oneself, another person, or a group or community, which results in or has a high potential of...
Domestic violence is the presence of physical, emotional, or sexual violence, or a combination of all three [10].

Physical violence was defined as one or more intentional acts of physical aggression such as: pushing, slapping, throwing, hair pulling, punching, hitting, kicking, or burning, perpetrated with the potential to cause harm, injury, or death [16].

Psychological/emotional violence was defined as one or more acts, or threats of acts, including shouting, controlling, intimidating, humiliating, and threatening the victim [10, 16].

Sexual violence is defined as the use of force, coercion, or psychological intimidation to force a woman to engage in a sex act against her will, whether or not it is completed [16, 17].

Study variables

The outcome variable was the experience of DV among ever-married reproductive-age women in Cameroon. The variable was categorized into two categories: 1 = “experienced domestic violence” and 0 = “never experience domestic violence”. Physical violence plus emotional violence plus sexual violence constituted DV. In this study, the independent variables included were age, religion, residence, educational status of women, educational status of the husband, husband drinking alcohol, and wealth index of the women are identified as factors that have a significant association with domestic violence [9, 10].

Operational definitions

Domestic violence: is defined as the presence of physical, emotional, or sexual violence, or a combination of all three [10].

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Data processing and analysis

Individual records (IR) files were used to extract data, which was then coded and transformed using STATA version 14 statistical software. To account for the differential chance of selection and non-response to the original survey, weighted samples were used for analysis. Bivariable binary logistic regression analysis was employed to identify factors that are eligible for multivariable binary logistic regression analysis at a p-value less than 0.2. Model fitness was checked with Hosmer and Lemeshow goodness fit test and it was fitted. The variance inflation factor (VIF) was also used to analyze multicollinearity across the explanatory components, and
it was found to be within an acceptable range (1–4) [18]. The 95% confidence interval and a p value of 0.05 were applied to quantify statistical significance.

Result
A total of 4,903 ever-married women were included in the study. The mean age of the participants with standard deviation (SD) was 31.3 (±8.4) years with an age range of 15–49 years (Table 1).

Prevalence of domestic violence
In the current study, the prevalence of DV among ever-married Cameroonian women was 30.5% with 95% CI (29.3%, 31.8%). The proportion of DV was higher among age groups of women from 25 to 34 (32.7%) and 35–49 (30.3%) as compared to women found in the age groups of 18–24. Furthermore, domestic violence was higher among women whose husband drinks alcohol (43.2%).

Table 1  Sociodemographic characteristics of married women in Cameroon (n = 4903)

| Variable                        | Category         | Frequency | Percent |
|---------------------------------|------------------|-----------|---------|
| Age group (in years)            | 15–24            | 1126      | 23.0    |
|                                 | 25–34            | 2152      | 44.0    |
|                                 | 35–49            | 1625      | 33.0    |
| Residence                       | Rural            | 2429      | 49.5    |
|                                 | Urban            | 2474      | 50.5    |
| Religion                        | Christian        | 3302      | 67.4    |
|                                 | Muslim           | 1406      | 28.6    |
|                                 | Other            | 195       | 4.0     |
| Educational status of a woman   | No formal education| 1330      | 27.0    |
|                                 | Primary          | 1552      | 31.7    |
|                                 | Secondary        | 1760      | 36.0    |
|                                 | Higher           | 262       | 5.3     |
| Educational status of the husband| No formal education| 905       | 18.4    |
|                                 | Primary          | 1327      | 27.0    |
|                                 | Secondary        | 1511      | 31.0    |
|                                 | Higher           | 394       | 8.0     |
|                                 | Don't know       | 765       | 15.5    |
| Wealth index                    | Poor             | 2037      | 41.5    |
|                                 | Middle           | 948       | 19.3    |
|                                 | Rich             | 1918      | 39.2    |
| Current working status          | Currently working| 3478      | 29.1    |
|                                 | Currently not working| 1426    | 70.9    |
| Mass-media exposure             | Yes              | 2804      | 57.8    |
|                                 | No               | 2099      | 42.8    |
| Husband drinks alcohol          | Yes              | 2253      | 46.0    |
|                                 | No               | 2650      | 54.0    |
| A region where respondents reside| Adamawa           | 265       | 5.4     |
|                                 | Centre without Yaoundé| 402   | 8.2     |
|                                 | Douala           | 553       | 11.3    |
|                                 | East             | 318       | 6.5     |
|                                 | Far north        | 929       | 19      |
|                                 | Littoral (without Yaoundé)| 171  | 3.5     |
|                                 | North            | 699       | 14.3    |
|                                 | Northwest        | 335       | 6.9     |
|                                 | West             | 468       | 9.6     |
|                                 | South            | 179       | 3.7     |
|                                 | Southwest        | 92        | 1.9     |
|                                 | Yaoundé          | 492       | 10.0    |

Other (Animist, no religion, and other)
Prevalence of different forms of violence
Out of 4903 women involved in the study, 21.87%, 18.7%, and 6.5% of the participants experienced emotional, physical, and sexual violence by their husbands in the past 12 months respectively.

Factors associated with domestic violence
In the bivariable logistic regression analysis, independent variables with a p value of less than 0.2 were passed to be included in the multivariable logistic regression analysis. Those variables were residence, religion, women's educational level, current working status of a woman, husband's educational level, women's mass-media exposure to DV, husband's alcohol drinking status, and the region where a woman resides. Based on multivariable binary logistic regression analysis the following explanatory variables had a statistically significant association with DV among ever-married reproductive-age women: Women's educational attainment (women who had a higher level of education (AOR = 0.58, 95% CI (0.37, 0.92), p value = 0.02), Husband's educational level (husbands who attended primary educational level (AOR = 1.30, 95% CI (1.01, 1.68), p value = 0.04), women who had an exposure to mass-media about the DV (AOR = 0.83, 95% CI (0.70,0.99), p value = 0.04), women whose husband drinks alcohol (AOR = 3.00, 95% CI (2.56, 3.53), p value < 0.001), and the region where the women resides (center without Yaoundé (AOR = 2.48, 95% CI (1.75, 3.52), p value < 0.001), west (AOR = 1.49, 95% CI (1.05, 2.11), p value = 0.02, South (AOR = 1.89, 95% CI (1.31, 2.72), p value = 0.001), and Yaoundé (AOR = 1.65, 95% CI (1.14, 2.39), p value = 0.009). The odds of DV was decreased by 42% among married woman who had a higher level of educational attainment. The odds of DV increased by 30% among women whose husband’s education is at a primary level (Table 2).

Discussion
By examining Cameroon’s most recent DHS data, this study investigated the prevalence and associated factors of DV among ever-married women. In the last 12 months. The prevalence of domestic violence among ever-married Cameroon women was 30.5% with 95%CI (29.3%, 31.8%). And Women's educational level, husband's educational level, women's mass-media exposure to DV, husband's alcohol drinking status, and the region where the women reside were factors that had a statistically significant association with DV among ever-married women in Cameroon.

The prevalence of DV in this study was significantly lower than those of previous studies done in Figitalekoma, Woreda, Awi zone, Ethiopia, which found 78.0% [10], Zimbabwe (42.7%) [11], Nigeria (67.2%) [12], Senegal (56.92%) [13], and Egypt (40.8%) [19]. This disparity could be attributed to socio-demographic characteristics in some of the countries that encourage wife-beating behavior, and some studies assess the lifetime prevalence of DV. As a result, when compared to our study, those factors may increase the prevalence of DV in those countries. However, the results of the present study are higher than the study conducted in rural Nepal which is 23.1% [16]. This difference is possibly due to differences in sociodemographic characteristics of the population.

DV among ever-married women was affected by different socio-demographic characteristics of both the women and their husbands. DV was found to be strongly connected with women’s educational status in the current study, with women with a higher level of education, having a lower risk of experiencing domestic violence by their husbands. This result is supported by studies conducted in Saudi Arabia [20] and Kenya [21]. According to Chenna Kal's study, education may help people overcome ignorance, develop moral ideas, and improve their character. According to the study, education is also a tool that improves people’s thinking and judgment of what is right and wrong, which encourages women to fight violence [22]. Moreover, the results of the present study stated that women who had husbands with a primary level of education had a higher risk for domestic violence than husbands with a higher level of education. This outcome is in harmony with studies done in Nigeria, Nepal, and Turkey respectively [23–25]. This could be explained by husbands with lower educational status who may have a lower level of awareness about women’s rights and legislation that states domestic violence. DV among married women has also had a significant association with their husband’s alcohol drinking behavior. This result is supported by a study done in Ethiopia, Zimbabwe, and Nepal [9, 10, 24]. This is because, alcohol consumption has a direct impact on human physico-cognitive function, reducing self-control and making people less capable of negotiating a nonviolent resolution to conflict within relationships. This may lead to domestic violence [26]. Furthermore, there is a statistically significant association between DV and women’s exposure to mass-media about DV. That is, compared to their counterparts, women who had access to mass-media had a decreased probability of experiencing DV. This result is supported by a study done in India [27]. Finally, the present study also revealed that the region where the women reside in the country is also another factor that was significantly associated with domestic violence. This disparity in the prevalence of domestic violence among married women across different regions of Cameroon may be due to differences in the socioeconomic
Table 2  Factors associated with domestic violence among ever-married women in Cameroon, (n = 4903)

| Variable                                      | Domestic violence | Bivariate analysis | Multivariable analysis |
|-----------------------------------------------|------------------|--------------------|------------------------|
|                                               | Yes (n = 1496)    | No (n = 3407)      |                        |
|                                               | Frequency (30.5%) | Frequency (69.5%)  |                        |
| Age (c)                                       | 31.3 (± 8.1)     | 31.2 (± 8.1)       |                        |
| Residence                                     |                  |                    |                        |
| Urban                                         | 724 (29.3%)      | 1750 (70.7%)       |                        |
| Rural                                         | 772 (31.8%)      | 1657 (68.2%)       |                        |
| Religion                                      |                  |                    |                        |
| Catholic                                      | 1139 (34.5%)     | 2163 (65.5%)       |                        |
| Muslim                                        | 302 (21.5%)      | 1103 (78.5%)       |                        |
| Other                                         | 55 (28.1%)       | 140 (71.9%)        |                        |
| Women’s educational level                     |                  |                    |                        |
| No formal education                           | 301 (22.6%)      | 1029 (77.4%)       |                        |
| Primary                                      | 525 (33.9%)      | 1026 (66.1%)       |                        |
| Secondary education                           | 625 (35.5%)      | 1135 (64.5%)       |                        |
| Higher                                        | 45 (17.3%)       | 217 (82.7%)        |                        |
| Current working status of a woman             |                  |                    |                        |
| Currently working                             | 1125 (32.3%)     | 2353 (67.7%)       |                        |
| Currently not working                         | 371 (26.0%)      | 1054 (74.0%)       |                        |
| Husband’s educational level                   |                  |                    |                        |
| No formal education                           | 177 (19.6%)      | 727 (80.4%)        |                        |
| Primary education                             | 456 (34.4%)      | 871 (65.6%)        |                        |
| Secondary education                           | 534 (35.3%)      | 979 (64.7%)        |                        |
| Higher                                        | 87 (22.2%)       | 307 (77.8%)        |                        |
| Don’t know                                    | 242 (31.6%)      | 523 (68.4%)        |                        |
| Wealth index                                  |                  |                    |                        |
| Poor                                          | 615 (30.2%)      | 1422 (69.8%)       |                        |
| Medium                                        | 290 (30.5%)      | 658 (69.5%)        |                        |
| Rich                                          | 592 (30.8%)      | 1327 (69.2%)       |                        |
| Mass-media exposure                           |                  |                    |                        |
| Exposed                                       | 911 (32.5%)      | 1893 (67.5%)       |                        |
| Non exposed                                   | 586 (27.9%)      | 1514 (72.1%)       |                        |
| Husband’s alcohol drinking status             |                  |                    |                        |
| Yes                                           | 973 (43.2%)      | 1280 (56.8%)       |                        |
| No                                            | 524 (19.7%)      | 2127 (80.3)        |                        |
| Region                                        |                  |                    |                        |
| Adamawa                                       | 48 (18.4%)       | 217 (81.6%)        |                        |
| Center without Yaoundé                        | 197 (49.0%)      | 205 (51.0%)        |                        |
| Douala                                        | 164 (29.8%)      | 388 (70.2%)        |                        |
| East                                          | 112 (35.1%)      | 206 (64.9%)        |                        |
| Far-north                                     | 177 (19.0%)      | 752 (81.0%)        |                        |
| Littoral (without Douala)                     | 39 (23.3%)       | 131 (76.7%)        |                        |
| North                                         | 208 (29.7%)      | 491 (70.3%)        |                        |
| North -west                                   | 122 (36.6%)      | 213 (63.4%)        |                        |
| South                                         | 67 (37.4%)       | 112 (62.6%)        |                        |
| South west                                    | 25 (26.8%)       | 67 (73.2%)         |                        |
| Yaoundé                                       | 159 (32.4%)      | 333 (67.6%)        |                        |

N.B: Hosmer and Lemeshow model fitness (> 0.05) and the variance inflation factor within the acceptable range (1–4)
status of the people living in such divergent regions of the Country.

Conclusion and recommendations
The present study revealed that the prevalence of domestic violence among ever-married women in Cameroon is high. Women’s educational level, husbands’ educational level, husband’s alcohol drinking behavior, women’s media exposure to DV, and the region where the woman resides in the country were factors significantly associated with DV. As a result, the government should devise a comprehensive program to minimize domestic violence, taking into consideration the study’s findings and enabling women to protect their legal rights.

Abbreviations
AOR: Adjusted odds ratio; CI: Confidence interval; DV: Domestic violence; DHS: Demographic Health Survey.

Acknowledgements
We would like to acknowledge the MEASURE DHS program for permitting us to obtain and use recent DHS data sets of Cameroon.

Authors’ contributions
All authors made substantial contributions to the conception, acquisition of data, or analysis and interpretation of data; took part in drafting the article or revising it critically for important intellectual content; agreed to submit it to the current journal; gave final approval of the version to be published; and agree to be accountable for all aspects of the work. All authors read and approved the final manuscript.

Funding
No funding was received from any organization.

Availability of data and materials
All results-based data are available within the manuscript and anyone can access the data set online from www.measuredhs.com.

Declarations
Ethics approval and consent to participate
The research was carried out following the Helsinki Declaration. The authors were asked to obtain a permission letter to download and utilize the data files for the current study because it was based on secondary data (DHS data).

Consent for publication
Not applicable.

Competing interests
The authors declare that they have no competing interests.

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Received: 13 March 2022   Accepted: 26 July 2022 Published online: 01 October 2022

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