

Prevalence and risk factors of obstetric violence among Jordanian women: a cross-sectional study

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ABSTRACT

Aim To assess the prevalence and risk factors associated with obstetric violence during childbirth among Jordanian women.

Methods A descriptive cross-sectional design was adopted. Recruitment occurred in public maternity and children's health centres in the Irbid Directorate in Jordan. Five hundred and fifteen women were enrolled in the study as a convenient sample. An online questionnaire comprised socio-demographic, obstetric and clinical variables and obstetric violence measurement.

Results The prevalence of physical, verbal, and psycho-affective violence was reported in 390 (75.7%), 154 (29.9%), and 191 (37.1%) cases, respectively. Mode of delivery, using induction, and complicated delivery were significantly associated with physical violence ($p < 0.05$). Place of last delivery (OR= 0.51 95% CI: 0.3-0.86), complicated delivery, and primary healthcare provider were associated with exposure to verbal violence ($p < 0.05$). Psycho-affective violence was significantly associated with the mode of delivery, complicated delivery, and primary healthcare providers ($p < 0.05$).

Conclusion The findings of this study, which showed a high prevalence of physical, verbal, and psycho-affective violence, underscore the urgent need to create possible solutions that guarantee the global goal of respectful maternal treatment. These findings are significant as they highlight the prevalence of obstetric violence among Jordanian women and the associated risk factors, thereby contributing to the growing body of research on this critical issue.

Keywords: childbirth, maternal health services, obstetric, patient safety, violence

INTRODUCTION

The World Health Organization (WHO) identified the statement of respectful maternal treatment in 2014 as the respect and elimination of any abusive behaviours during the care of women during pregnancy, childbirth, and the postpartum period (1). This underscores the importance of ensuring respectful treatment for all women during these critical periods. Obstetric violence (OV) still has no consensus definition, and the definition is different according to the legislation of each country. Until now, Jordanian law has no particular legislation dealing with obstetric violence. However, judicial action can be sought given general legislation on medical malpractice, the Jordanian Patient Rights Charter, and legislative provisions concerning human rights, women's rights, and ethical considerations in healthcare (2). The WHO defines any disrespectful, abusive, or

neglectful behaviour by healthcare providers towards women during maternal periods as disrespectful and offensive treatment, and is divided into verbal, physical, or psycho-affective acts (3). The OV has been described not only as gender-based violence but also as structural violence (4). Structural violence, as first coined by Galtung and Høivik (1971), is a form of violence in which a social structure or institution causes harm to individuals by preventing them from achieving their basic needs (5). The factors associated with the existence of obstetric violence among women are different, such as marital status, age, socio-economic status, and occupational status of the mother (6), as well as the attending person himself who supervises the birth, the mode of delivery, and the nature of the hospital or centre, whether it is public or private (7).

Obstetric violence frequently happens worldwide, and the prevalence ranges between 10% and 77.3%, according to some studies (8–10). It has been linked to numerous physical and psychological problems, such as post-partum post-traumatic stress disorder (PTSD) and post-partum depression (PPD) (11). These conditions not only affect the mother's health but also significantly impact the infant's well-being. Postpartum PTSD

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has been linked to lower rates of breastfeeding initiation and a higher incidence of low birth weight (12). In addition, it has an impact on mother morbidity (13), as well as the relationship with the partner, family, and, most importantly, the infant (14). Moreover, PPD may lead to many long-term fetal and maternal problems (15), such as injury, infection, pain, deterioration in spousal or parenteral relationships, and many psychological and social issues during the postpartum period (8).

Obstetric violence is considered a stigma and concealed issue in any healthcare history for a woman due to the vulnerability of women in childbirth (16). For this reason, the current study will highlight this problem and exhibit risk factors of OV to get the attention of the administrators and managers of gynaecologists and obstetric departments. Therefore, designing strategies to eradicate this phenomenon is the first step to improving the psychological status of women during maternal periods and involvement in positive motherhood (8,15). This study aimed to assess the prevalence and risk factors associated with obstetric violence during childbirth among Jordanian women.

PATIENTS AND METHODS

Patients and study design

A descriptive cross-sectional design was used to assess the prevalence of obstetric violence among Jordanian women. This design helps identify the prevalence of the significant variable and other sociodemographic variables in a short period without high cost.

The target population was all Jordanian women who had given birth within the year preceding the data collection period from March 2023 to July 2023. Inclusion criteria included all Jordanian women who gave birth within one year from the point of data collection, those who read and wrote in Arabic, and could use simple social media applications. The exclusion criteria were women with mental or psychiatric disorders or women whose newborns were dead or with any congenital disorders. A convenient sample of (359) women could be required to estimate the prevalence of obstetric violence among Jordanian women with a medium effect size and the power of 80%.

The study proposal was submitted for review and approval by the Research and Ethics Committee of Ajloun University College/ Al-Balqa Applied University, with ethical approval number 1327/H.R/6. Participants were allowed to ask questions at any time they wanted by providing the researcher's phone number and e-mail on the first page of the questionnaire. Privacy and confidentiality were maintained by anonymity, as outlined in the consent form. After obtaining approval, the researcher met with midwives working in maternity and children's health centres (MCH) centres in their working areas.

Methods

The recruitment took place in public maternity and children's health centres (MCH), which are exclusively affiliated with the Jordanian Ministry of Health, to exploit the presence of the mothers within the timetable of the national program of children's vaccination in the first year of the child life, and the mothers' seeking for family planning methods. The recruitment was conducted in Irbid with the help of the MCH centres' midwives. Irbid is the largest directorate in the north of Jordan and

includes the highest number of MCH centres (53 centres) (17). An online self-administered questionnaire designed especially for the study consisted of three parts: socio-demographic, obstetric and clinical variables, and obstetric violence measurement. The first part was included the sociodemographic variables (maternal age, marital status, education level, and monthly family income in Jordan Dinar (JD)). The second part included obstetric and clinical variables (parity, mode of delivery, induced labour, place of delivery, private, military or public hospital), birth outcome, whether it was complicated delivery or not, the use of analgesia after delivery, and the primary healthcare provider during childbirth.

The third part of the questionnaire is designed after an extensive literature review that includes all domains of obstetric violence (7,18–20). The questions measuring obstetric violence and its three components - physical, verbal, and psycho-affective violence, were also included. Physical violence was defined as the use of the following practices without informing and without consent: shaving, enema, artificial rupture of the membranes or drug acceleration of labour, repeated per-vaginal exam and by different professionals, fundal pressure during pushing, a direction to lie down or be supine without justification, or manual removal of the placenta without anaesthesia, as well as, exposure to hand hitting, pushing, kicking, pinching. Verbal disqualification, inappropriate verbal treatment, criticism of the expression of emotions, and the inability to communicate or question were considered verbal violence. Psycho-affective violence was considered: preventing contact with the newborn before being transferred, the feeling of not collaborating, vulnerability, guilt, and insecurity transmitted to the woman.

Any violation of one of the physical, verbal, or psycho-affective components is considered as OV. The responses to all questions were binary options (YES=1, NO=0). The participant was considered abused if she answered "YES" to any of the statements. Five experts in maternal health and obstetric care reviewed the face and content validity of the Obstetric Violence Questionnaire. These experts confirmed the relevance and clarity of the items, suggested some minor adjustments concerning phrasing, and generally agreed that the tool effectively captured the critical aspects of obstetric violence. The content validity index was used to measure the content validity of the tool (CVI=0.865). Depending on the critical social theory (social justice) conceptual framework identifies the embedded violence in the routine care for women during their childbirth (4). The midwives' role is to assess the women's eligibility for the study and obtain verbal consent before sending them the online questionnaire.

Statistical analysis

Statistical methods included calculating descriptive statistics such as the frequency and percentage for categorical variables, the mean, standard deviation (SD), and the minimum and maximum for the continuous variables. Logistic regression has been used to analyse the association between risk factors and outcomes of obstetric violence for inferential analysis. The dependent variables being binary (YES/NO) oblige the choice of a regression model that will allow the estimation of an odds ratio (OR) with the appropriate 95% confidence interval (CI). Variable selection was based on literature and theoretical relevance to obstetric violence. The assumptions of multivariate analysis

were initially verified, including linearity, independence, and lack of multicollinearity, which were checked before the analysis. The Hosmer–Lemeshow (H–L) test was applied, with a non-significant result indicating a good fit of the model to the data. The level of significance was defined as $p = 0.05$.

RESULTS

Nearly 950 online questionnaires were sent to eligible women, and 515 (54.2%) were received with an acceptable response rate. Most women were >35 years old, 271 (52%). Most females had a bachelor's degree, 290 (56.3%). The preponderance of the women who gave birth in governmental hospitals was 230 (44.7%) (Table 1).

Table 1. The Demographic, obstetric and clinical characteristics of the women

| Characteristics | N (%) of women | |
|---|----------------------------|-----------------------|
| Age (years) | ≤35 | 244 (47.4) |
| | >35 | 271(52.6) |
| Education | Less than secondary school | 15 (2.9) |
| | Secondary school | 131 (25.4) |
| | Bachelor | 290 (56.3) |
| | Graduate study | 79 (15.3) |
| Marital status | Married | 482 (93.6) |
| | Divorced | 23 (4.5) |
| | Widowed | 10 (1.9) |
| | One child | 72 (14.0) |
| Number of Children | 2-3 children | 217 (42.1) |
| | More than 3 children | 226 (43.9) |
| | Normal | 306 (59.4) |
| Mood of delivery | Ceserean | 209 (40.6) |
| | Yes | 222 (43.1) |
| Using induction or augmentation | No | 293 (56.9) |
| | Place of the last delivery | Governmental hospital |
| Private hospital | | 186 (36.1) |
| Military hospital | | 88 (17.1) |
| Other | | 11 (2.1) |
| Complicated delivery | Yes | 183 (35.5) |
| | No | 332 (64.5) |
| Delivery outcome | One child | 487 (94.6) |
| | Twins or more | 28 (5.4) |
| Primary healthcare provider during delivery | Midwife | 189 (36.7) |
| | Doctor | 301 (58.4) |
| | Other | 25 (4.9) |

The prevalence of physical, verbal, and psycho-affective violence was reported in 390 (75.7%), 154 (29.9%), and 191 (37.1%) women, respectively. The most frequent physical violence was “Recurrence of per-vaginal exam from different care providers,” which was reported by 241 (46.8%) women, and 27 (5.2%) reported that they were exposed to hand hitting, pushing, kicking, pinching. The most frequent verbal violence was “Inappropriate verbal treatment,” which was reported by 442 (85.8%) women, and 114 (22.1%) reported “The inability to communicate or question.”. The most frequent verbal violence was “Feeling of insecurity” and “Transition of guilt feeling to woman,” which were reported by 117 (22.7%) and 116 (22.5%) women, and 114 (22.1%) reported that they were prevented

from contacting the newborn before being transferred (Table 2).

Mode of delivery, using induction, and complicated delivery were significantly associated with physical violence (OR= 0.38, 95% CI: 0.23-0.64) (OR = 2.24; 95% CI: 1.34-3.83) (OR= 2.28, 95% CI: 1.43-3.64) ($p < 0.05$), respectively. Place of last delivery (OR= 0.44 95% CI: 0.28-0.69), complicated delivery (OR= 3.44, 95% CI: 2.32-5.1), use of induction (OR=1.87, 95% CI: 1.28-2.73), and primary healthcare provider (OR= 0.39, 95% CI: 0.26-0.59) were associated with exposure to verbal violence. Psycho-affective violence was significantly associated with the mode of delivery (OR= 1.43, 95% CI: 1-2.06), complicated delivery (OR= 3.19, 95% CI: 2.19-4.66), use of induction (OR= 1.59; 95% CI: 1.11-2.28), and primary healthcare providers (OR= 0.48, 95% CI: 0.33-0.7). The inferential goodness-of-fit test is the Hosmer–Lemeshow (H–L) test that yielded a χ^2 (8) of 6.08 and was insignificant ($p > 0.05$), suggesting that the model fit the data well. The model successfully explained the 22.8% variation in the response variable around its mean (Table 3 and 4).

Table 2. The Prevalence of obstetric violence according to its components

| Type of Violence/Item | Answer | No (%) of women |
|---|--------|-----------------|
| Physical | | |
| Conducting procedures without consent | YES | 188 (36.5) |
| | NO | 327 (63.5) |
| Fundal pressure during pushing | YES | 142 (27.6) |
| | NO | 373 (72.4) |
| Recurrence of per-vaginal exams from different care providers | YES | 241 (46.8) |
| | NO | 274 (53.2) |
| Direction to lie down or be supine without justification | YES | 53 (10.3) |
| | NO | 462 (89.7) |
| Manual removal of the placenta without anaesthesia | YES | 143 (27.8) |
| | NO | 372 (72.2) |
| Exposure to hand hitting, pushing, kicking, pinching | YES | 27 (5.2) |
| | NO | 488 (94.8) |
| Verbal | | |
| Inappropriate verbal treatment | YES | 442 (85.8) |
| | NO | 73 (14.2) |
| Criticism of the expression of emotions or for any reason | YES | 104 (20.2) |
| | NO | 411 (79.8) |
| The inability to communicate or question | YES | 114 (22.1) |
| | NO | 401 (77.9) |
| Psycho-affective | | |
| Preventing contact with the newborn before being transferred | YES | 74 (14.4) |
| | NO | 441 (85.6) |
| Feeling of not collaborating | YES | 89 (17.3) |
| | NO | 426 (82.7) |
| Feeling of vulnerability | YES | 116 (22.5) |
| | NO | 399 (77.5) |
| Feeling of insecurity | YES | 117 (22.7) |
| | NO | 398 (77.3) |
| Transition of guilt to the woman | YES | 70 (13.6) |
| | NO | 445 (86.4) |

DISCUSSION

During childbirth, violence is more frequent than some obstetric complications because women are not fully aware of their rights during this critical and valuable time. The purpose of this study was to assess physical, verbal, and psycho-affective violence

Table 3. The analysis of the demographic factors for obstetric violence

| Variable | Physical Violence | | | Verbal Violence | | | Psycho-affective Violence | | |
|---------------------------|-------------------|----------------|---------------------|-----------------|----------------|---------------------|---------------------------|----------------|---------------------|
| | NO (No; %) | YES (No; %) | OR (95% CI) | NO (No; %) | YES (No; %) | OR (95% CI) | NO (No; %) | YES (No; %) | OR (95% CI) |
| Age (years) | | | | | | | | | |
| ≤ 35 | 53 (21.7) | 191 (78.3) | 1 (ref.) | 160 (65.6) | 84 (34.4) | 1 (ref.) | 139 (57) | 105 (43) | 1 (ref.) |
| > 35 | 72 (26.6) | 199 (73.4) | 0.77 (0.51-1.15) | 201 (74.2) | 70 (25.8) | 0.66 (0.45-0.97) | 185 (68.3) | 86 (31.7) | 0.62 (0.43-0.88) |
| Education | | | | | | | | | |
| Graduate | 16 (20.3) | 63 (79.7) | 1 (ref.) | 54 (68.4) | 25 (31.6) | 1 (ref.) | 48 (60.8) | 31 (39.2) | 1 (ref.) |
| Bachelor | 71 (24.5) | 219 (75.5) | 0.78 (0.43-1.44) | 199 (68.6) | 91 (31.4) | 0.99 (0.58-1.69) | 182 (62.8) | 108 (37.2) | 0.92 (0.55-1.53) |
| Secondary | 36 (27.5) | 95 (72.5) | 0.67 (0.34-1.31) | 96 (73.3) | 35 (26.7) | 0.79 (0.43-1.45) | 86 (65.6) | 45 (34.4) | 0.81 (0.45-1.44) |
| Less than Secondary | 2 (13.3) | 13 (86.7) | 1.65 (0.34-8.07) | 12 (80) | 3 (20) | 0.54 (0.14-2.09) | 8 (53.3) | 7 (46.7) | 1.35 (0.45-4.11) |
| Income | | | | | | | | | |
| 0-400 | 51 (22.5) | 176 (77.5) | 1 (ref.) | 148 (65.2) | 79 (34.8) | 1 (ref.) | 128 (56.4) | 99 (43.6) | 1 (ref.) |
| 401-600 | 29 (22.5) | 100 (77.5) | 1 (0.6-1.68) | 93 (72.1) | 36 (27.9) | 0.73 (0.45-1.16) | 87 (67.4) | 42 (32.6) | 0.62 (0.4-0.98) |
| 601-800 | 16 (21.9) | 57 (78.1) | 1.03 (0.55-1.95) | 51 (69.9) | 22 (30.1) | 0.81 (0.46-1.43) | 52 (71.2) | 21 (28.8) | 0.52 (0.3-0.92) |
| 801-1000 | 20 (33.3) | 40 (66.7) | 0.58 (0.31-1.08) | 48 (80) | 12 (20) | 0.47 (0.24-0.93) | 39 (65) | 21 (35) | 0.7 (0.39-1.26) |
| > 1000 | 9 (34.6) | 17 (65.4) | 0.55 (0.23-1.3) | 21 (80.8) | 5 (19.2) | 0.45 (0.16-1.23) | 18 (69.2) | 8 (30.8) | 0.57 (0.24-1.38) |
| Marital status | | | | | | | | | |
| Married | 118 (24.5) | 364 (75.5) | 1 (ref.) | 341 (70.7) | 141 (29.3) | 1 (ref.) | 305 (63.3) | 177 (36.7) | 1 (ref.) |
| Divorced | 5 (21.7) | 18 (78.3) | 1.17 (0.42-3.21) | 14 (60.9) | 9 (39.1) | 1.55 (0.66-3.67) | 14 (60.9) | 9 (39.1) | 1.11 (0.47-2.61) |
| Widowed | 2 (20) | 8 (80) | 1.3 (0.27-6.19) | 6 (60) | 4 (40%) | 1.61 (0.45-5.8) | 5 (50) | 5 (50) | 1.72 (0.49-6.03) |
| Number of children | | | | | | | | | |
| One | 11 (15.3) | 61 (84.7) | 1 (ref.) | 43 (59.7) | 29 (40.3) | 1 (ref.) | 35 (48.6) | 37 (51.4) | 1 (ref.) |
| Two-Three | 56 (25.8) | 161 (74.2) | 0.52 (0.25-1.05) | 150 (69.1) | 67 (30.9) | 0.66 (0.38-1.15) | 137 (63.1) | 80 (36.9) | 0.55 (0.32-0.95) |
| More than Three | 58 (25.7) | 168 (74.3) | 0.52 (0.26-1.06) | 168 (74.3) | 58 (25.7) | 0.51 (0.29-0.89) | 152 (67.3) | 74 (32.7) | 0.46 (0.27-0.79) |

*OR: Odds Ratio, CI: Confidence Interval, ref.: Reference Group (the group against which all other categories are compared in the regression model).

against Jordanian women who have given birth within one year or less. Our findings indicated that physical, verbal, and psycho-affective violence was found in (75%), (29.9%), and (37.1%), respectively. This high prevalence may be related to many factors. Jordanian healthcare providers, including midwives, have complained of high workload, low job satisfaction, and moderately insufficient quality of work-life environment (21). Hence, healthcare providers, specifically midwives, have the risk of developing many mental and psychological disorders (22).

This finding showed similarity with other studies published in the literature. A survey conducted in 2017 indicated that around 40% of Jordanian females experienced at least one verbal violence during their last birth experience (23). Another study that took place in Spain showed that 25.1% of females experienced verbal violence during their previous birth. Moreover, our findings indicated high physical violence (75.7%)

compared to the literature. In Brazil, physical violence was presented in (13.6%) of females, and another study showed that 54.5% of women were exposed to physical violence in Brazil (11,24,25). Such discrepancies are likely to be explained by several factors. First, cultural differences in Jordan and Brazil's healthcare systems may manifest in the prevalence and reporting of obstetric violence (26,27). In Jordan, the cultural or social norms about birth, combined with the command figures in health facilities, have potential implications for underreporting or acceptance of practices as "normal" (7). Since it was strained by low staffing and limited resources, the public health care system in Jordan might contribute to stressful conditions during labour, which in turn may increase the frequency of applications of physical interventions that could be perceived as violent (17). In this respect, country-specific factors should be considered when comparing the results across countries.

Table 4. The analysis of the obstetric factors for obstetric violence

| Variable | Physical Violence | | | Verbal Violence | | | Psycho-affective Violence | | |
|--|-------------------|----------------|----------------------|-----------------|----------------|---------------------|---------------------------|----------------|---------------------|
| | NO (No; %) | YES (No; %) | OR (95% CI) | NO (No; %) | YES (No; %) | OR (95% CI) | NO (No; %) | YES (No; %) | OR (95% CI) |
| Mode of delivery | | | | | | | | | |
| Normal vaginal | 47 (15.4) | 259 (84.6) | 1 (ref.) | 215 (70.3) | 91 (29.7) | 1 (ref.) | 203 (66.3%) | 103 (33.7) | 1 (ref.) |
| C-Section | 78 (37.3) | 131 (62.7) | 0.3 (0.2-0.46) | 146 (69.9) | 63 (30.1) | 1.02 (0.69-1.5) | 121 (57.9) | 88 (42.1) | 1.43 (1-2.06) |
| Using induction | | | | | | | | | |
| NO | 98 (33.4) | 195 (66.6) | 1 (ref.) | 222 (75.8) | 71 (24.2) | 1 (ref.) | 198 (67.6) | 95 (32.4) | 1 (ref.) |
| YES | 27 (12.2) | 195 (87.8) | 3.63 (2.27-5.81) | 139 (62.6) | 83 (37.4) | 1.87 (1.28-2.73) | 126 (56.8) | 96 (43.2) | 1.59 (1.11-2.28) |
| Place of the last delivery | | | | | | | | | |
| Governmental hospital | 52 (22.6) | 178 (77.4) | 1 (ref.) | 149 (64.8) | 81 (35.2) | 1 (ref.) | 141 (61.3) | 89 (38.7) | 1 (ref.) |
| Private hospital | 55 (29.6) | 131 (70.4) | 0.7 (0.45-1.08) | 150 (80.6) | 36 (19.4) | 0.44 (0.28-0.69) | 132 (71) | 54 (29) | 0.65 (0.43-0.98) |
| Military hospital | 15 (17) | 73 (83) | 1.42 (0.75-2.68) | 55 (62.5) | 33 (37.5) | 1.1 (0.66-1.84) | 43 (48.9) | 45 (51.1) | 1.66 (1.01-2.72) |
| Other | 3 (27.3) | 8 (72.7) | 0.78 (0.2-3.04) | 7 (63.6) | 4 (36.4) | 1.05 (0.3-3.7) | 8 (72.7) | 3 (27.3) | 0.59 (0.15-2.3) |
| Complicated delivery | | | | | | | | | |
| NO | 97 (29.2) | 235 (70.8) | 1 (ref.) | 264 (79.5) | 68 (20.5) | 1 (ref.) | 241 (72.6) | 91 (27.4) | 1 (ref.) |
| YES | 28 (15.3) | 155 (84.7) | 2.28 (1.43-3.64) | 97 (53) | 86 (47) | 3.44 (2.32-5.1) | 83 (45.4) | 100 (54.6) | 3.19 (2.19-4.66) |
| Delivery outcome | | | | | | | | | |
| One Child | 114 (23.4) | 373 (76.6) | 1 (ref.) | 340 (69.8) | 147 (30.2) | 1 (ref.) | 304 (62.4) | 183 (37.6) | 1 (ref.) |
| Twins or more | 11 (39.3) | 17 (60.7) | 0.47 (0.22-1.04) | 21 (75) | 7 (25) | 0.77 (0.32-1.85) | 20 (71.4) | 8 (28.6) | 0.66 (0.29-1.54) |
| Using analgesics | | | | | | | | | |
| NO | 17 (14.7) | 99 (85.3%) | 1 (ref.) | 70 (60.3) | 46 (39.7) | 1 (ref.) | 67 (57.8) | 49 (42.2) | 1 (ref.) |
| YES | 108 (27.1) | 291 (72.9) | 0.46 (0.26-0.81) | 291 (72.9) | 108 (27.1) | 0.56 (0.37-0.87) | 257 (64.4) | 142 (35.6) | 0.76 (0.5-1.15) |
| Primary healthcare provider during delivery | | | | | | | | | |
| Midwife | 31 (16.4) | 158 (83.6) | 1 (ref.) | 114 (60.3) | 75 (39.7) | 1 (ref.) | 102 (54) | 87 (46) | 1 (ref.) |
| Doctor | 92 (30.6) | 209 (69.4) | 0.45 (0.28-0.7) | 239 (79.4%) | 62 (20.6) | 0.39 (0.26-0.59) | 214 (71.1) | 87 (28.9) | 0.48 (0.33-0.7) |
| Other | 2 (8) | 23 (92) | 2.26 (0.51-10.06) | 8 (32%) | 17 (68) | 3.23 (1.33-7.86) | 8 (32%) | 17 (68) | 2.49 (1.03-6.05) |

*OR: Odds Ratio, CI: Confidence Interval, ref.: Reference Group (the group against which all other categories are compared in the regression model).

In Spain and Mexico, two different articles were published that around 36% of women faced psycho-effective violence, which is similar to our findings (24,28). However, the assessment of obstetric violence is not uniform, and there is a great deal of variation; as a result, the same action may be interpreted as verbal type violence by some researchers and as psycho-affective type violence by others. Also, the high prevalence of burnout among Jordanian health providers could be considered a factor that may affect the prevalence of obstetric violence in an indirect way and consequently (29).

Contrary to some other studies' findings, there is no association between undergoing obstetric violence and sociodemographic characteristics, including age, marital status, or socioeconomic status (10,30–33). In a review that included 16 studies, socio-demographic factors and a lower social status linked to a higher risk of experiencing obstetric violence were found

(34). Similarly, other studies found that younger women with a lesser level of education are more likely to endure verbal violence (35). Our results were consistent with those studies reporting that most sociodemographic factors did not significantly predict violence (7,36–38).

Our findings suggested that using augmentation or induction in the delivery was associated with the probability of exposure to physical, verbal, and psycho-affective violence. In contrast, a study conducted in Jordan in 2023 indicated that the induction of labour had no significant association with obstetric violence (39). At the same time, some authors reported the induction of labour as a risk factor for verbal violence (25). Cesarean section (CS) as a mode of delivery was significantly associated with the existence of physical and psycho-affective violence in our study, similar to other reports (25). Experiencing complications during delivery, according to our results, had

a significant association with the exposure to physical, verbal, and psycho-affective violence. Women who undergo any medical intervention during delivery, such as cesarean section or vacuum-assisted delivery, may have a high likelihood of the exposure to violence for many reasons. Firstly, healthcare providers exert more time and effort to increase control over women, which may be considered violence from the women's perspective. Moreover, in emergencies, there was a significant lack of consent forms before procedures or insufficient information was given for patients to get approval due to the need for quick decisions (24). Hence, women may feel disrespect, mistreatment, or empowerment.

Similar to previous studies (7), women from our study who gave birth in private hospitals have lower rates of exposure to verbal violence. However, in contrast with some previous studies (7), doctors as healthcare providers during birth were significantly associated with the presence of verbal and psycho-affective violence. As reported by previous studies, there was no significant association between the class of healthcare providers who attended the birth and the presence of obstetric violence (40). It may be related to Jordanian culture, which prefers dealing with female healthcare providers such as midwives (41,42). Also, most of Jordan's gynaecology and obstetrics physicians were males (17).

It is important to emphasise that the prevalence of obstetric violence in our study was high when such acts are medically, ethically, and professionally unacceptable. Any form of violence in obstetrics is a violation of respectful maternal care principles and eradicates the trust between healthcare providers and their patients. The findings reveal an urgent need to address such practices, ensuring that women receive dignified and compassionate care during childbirth in line with medical ethics and professional standards.

Although this study has several strengths, such as a large and representative sample, it also has several potential limitations. For instance, self-administered questionnaires risk bias that cannot be eradicated in cross-sectional studies. The second limitation was the inability to accurately estimate the prevalence of violence due to the lack of reliable and accurate tools for monitoring this issue.

This study has several implications in different areas. Firstly, they aim to improve the quality of care. Highlighting this aspect of healthcare may establish the urgent need to develop new policies to guarantee respect for both women and healthcare providers. Also, creating evidence regarding the prevalence of obstetric violence could enhance public awareness and encourage women to speak about their experiences. Conducting this type of research by the healthcare providers themselves emerges from the advocacy role of the advanced nurse practitioner to promote respectful, safe, and non-violent obstetric care.

In conclusion, the term obstetric violence is becoming increasingly visible. However, there is no transparent and standardised concept of obstetric violence, and, in a broad sense, obstetric violence could be understood as any action, conduct, or omission of the woman's right during childbirth. Our findings showed a high prevalence of physical, verbal, and psycho-affective violence. Several factors were considered as risks of obstetric violence, such as complicated delivery, using augmentation and induction of labour, mode of delivery, place of deliv-

ery, and primary healthcare provider. At the same time, demographic data were not associated with violence.

AUTHOR CONTRIBUTIONS

Conceptualization, N.A. and A.A.; methodology, N.A.; software, M.S.; validation, Y.A.S., A.R. and M.A.-A.; formal analysis, B.A.-Z.; investigation, N.A., A.A., M.S.; resources, A.R., Y.A.S., M.A.-A.; data curation, N.A., A.A.; writing—original draft preparation, N.A., B.A.-Z.; writing—review and editing, A.R. All authors have read and agreed to the published version of the manuscript.

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