

Prevalence and Contributing Factors of Gender-based Violence in SAARC Territories from 2010 to 2020: A Systematic Review and Meta-analysis

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ABSTRACT

Background: Gender-based violence is a key global concern due to the high prevalence and increased socio-economic burden for survivors. However, estimation of the prevalence of gender-based violence is difficult due to differences in study design and underreporting of abuse, especially in developing nations. Therefore, we conducted this study to estimate the prevalence of Gender-based violence among women living in the SAARC region.

Methods: The review protocol was registered in PROSPERO (CRD42020219577). Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines were followed throughout the review. A thorough database search was conducted to identify studies done in the SAARC region. Title and abstract screening were done in Covidence, followed by a full-text review. Data were extracted and pooled for analysis using the inclusion and exclusion criteria. Subgroup analysis was done where possible.

Results: A total of 76 studies were included in the systematic review and metaanalysis. The community prevalence of domestic violence (DV) was 43.8% (95% CI, 35.1% - 52.9%), GBV prevalence was 34.9% (95% CI, 30.2% - 39.9%) and IPV prevalence was 39.8% (95% CI, 30.7% - 49.6%). GBV prevalence was highest in illiterate women [54.2% (95% CI, 46.8% - 61.5%)] and lowest among women with higher than secondary level education [23.1% (95% CI, 16.2% - 32.0%)]. The prevalence of GBV among women in pregnancy or postpartum period was 32.3% (95% CI, 25.1% - 40.4%, I²: 98.64), while among female sexual workers, the prevalence of Gender-based violence was 42.1% (95% CI, 28.1% - 57.5%, I²: 99.25).

Conclusions: There is a high prevalence of Gender-based violence in the SAARC region. Higher socioeconomic status and educational status are protective factors for Gender-based violence. However, more studies using validated tools are needed to understand the true extent of the problem.

Keywords: Domestic violence; gender-based violence; pregnancy; women.

INTRODUCTION

Gender-Based Violence (GBV) is defined as “violence involving men and women in which the female is usually the victim; and which is derived from unequal power relationship between men and women”.¹ GBV can be physical, mental, emotional, sexual, financial, or structural, and can be committed by intimate partners, familiarity, strangers and institutions.^{2,3} Men’s

perpetration of violence are commonly attributed to self-constructed social ideologies regarding masculinity.⁴⁻⁶

Globally, one out of three women is forced to experience some sort of violence.⁷ In high-income countries, referral systems and interventions such as counseling, social and emotional support, psychotherapy, and education are available.⁸⁻¹⁰ However, the condition is far worse

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for women living in low and middle-income countries (LMIC).^{11,12} Compared to other regions, women in South-East Asia are at a higher risk of intimate partner violence during their lifetime.¹³

Domestic violence has been linked to various poor physical and mental health outcomes.^{13,14-16} Its high prevalence and negative impact on health make it imperative to develop effective programs to tackle it. This study aims to provide an accurate measure of the extent of GBV in the South Asian region, which can be helpful in this effort.

METHODS

Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines were followed throughout the review, and the checklist for the same can be found in [Supplementary file 1](#).¹⁷

Protocol Registration

The study protocol was registered in PROSPERO (CRD42020219577).¹⁸

Inclusion criteria:

Study type(s): Prospective or retrospective cross-sectional studies published in the English language (2000-2020) as full, or abstracts were considered eligible to be included in this review.

Study participant(s): Married women of reproductive age group (MWRA) "or" commercial Sex workers or adolescents who have experienced gender-based violence.

Objective outcome(s): Any studies reporting gender-based violence prevalence ratio in their outcome.

EXCLUSION CRITERIA

Pediatric population, case reports, systematic review/meta-analysis, editorials, viewpoints, commentaries and articles, missing/insufficient data, and irretrievable (articles in other languages and non-accessible) studies were excluded.

Information source and search strategy

DS and PB used the appropriate MeSH terms in electronic databases (PubMed, Scopus, PMC, Embase, Google Scholar) to find the relevant articles by using Boolean terms 'AND' and 'OR'. For each study shortlisted via this process, the paper's reference section was checked to identify further studies not found in the previous database searches. Furthermore, unpublished studies were searched in grey literature. Secondary examinations included screening the references of the included studies and the previous systematic review. Electronic search details are available as [Supplementary file 1](#)

Study selection and data extraction

Ten thousand nine hundred eighty studies were retrieved from the search databases for screening. First, SG and SA screened the remaining studies for title and abstract. Then, AG and SA individually performed the full-text reviews of the selected studies based on inclusion and exclusion criteria using Covidence. Discrepancies were resolved by mutual consent obtained among authors. Finally, relevant data from the selected studies were extracted into the MS excel spreadsheet under the headings. Details of the study, including the period of data collection, the location where the study was conducted, the number and description of participants, were noted for all studies. Our reported outcomes of interest were the prevalence or incidence of domestic violence, GBV, intimate partner violence (IPV) for all participants and subgroups. Separate information on physical, psychological, and sexual violence was also recorded.

Risk of bias assessment

The studies' quality was assessed individually by AG and SG using the JBI quality appraisal tool for prevalence studies (2019).¹⁹ The bias summary is available as a [Supplementary file 2](#).

Summary Measures

The key characteristics of included studies were summarized as a narrative synthesis. For the meta-analysis, the prevalence of GBV among various populations in South Asian nations was used as the effect size. In studies that didn't report the prevalence of GBV as their primary outcome, the prevalence ratio was calculated from the variables given if possible.

Synthesis of Results

The extracted excel file was drawn into the CMA for the quantitative analysis. First, the pooled prevalence of GBV in south Asian nations with 95% CI was calculated via a random effect model. Next, the heterogeneity of the included studies was calculated using I^2 statistics. Finally, representative forest plots showing individual studies and the combined effect size were generated to overview the results.

Risk of bias across studies:

After data extraction and analysis, the evidence for publication bias was assessed using a funnel plot, and its significance was interpreted using Egger's test.

SENSITIVITY ANALYSIS

Sensitivity analysis was performed with the different forms of GBV and different patient populations identified in the review.

RESULTS

A total of 10,980 studies were identified from the initial database search. A total of 239 duplicates were removed. A total of 10,741 studies were subject to title and abstract screening, out of which 10,225 studies were excluded. In addition, full-text screening of 516 studies was done, and 76 were included in the final analysis (Figure 1).

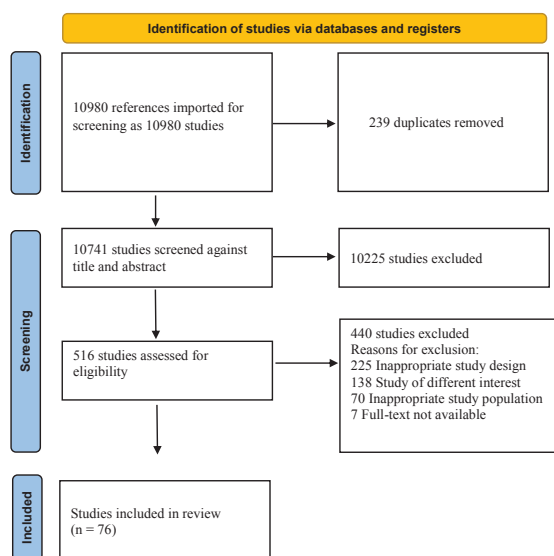


Figure 1. PRISMA flowchart.

Characteristics of included studies:

Out of the 76 studies included in our review, 36 studies reported community-level data on the prevalence of gender-based violence. Other studies included women of a specific demographic/socio-economic group, such as pregnant women or in the postpartum period, female sex workers, women with HIV, women with disabilities, and women in the workplace. Results from these subgroups were analyzed separately and are presented in the upcoming sections. In addition, 35 of the included studies were conducted in India, 15 in Nepal, 12 in Bangladesh, 6 in Sri Lanka, 5 in Pakistan, 3 in Afghanistan, and 1 in Bhutan. All studies were published between 2010 and 2020. A tabulated summary of included studies is presented in [Supplementary file 3](#) table 1-5.^{20,96}

Among community-based studies

Based on the community level studies among the SAARC countries and the random effects meta-analysis assessment of 20 studies the prevalence of DV is 43.8% (95% CI, 35.1% - 52.9%, I²: 95.86), GBV prevalence is 34.9% (95% CI, 30.2% - 39.9% I²: 64.33) and IPV prevalence is 39.8% (95% CI, 30.7% - 49.6%, I²: 99.72) (Figure 2). The prevalence of gender-based violence in respective SAARC countries were Bangladesh [47.1% (95% CI, 30.4% - 64.6%)], India [32.9% (95% CI, 28.0% - 38.2%)], Nepal

[43.5% (95% CI, 34.5% - 52.8%)], Pakistan [87.1% (95% CI, 84.5% - 89.3%)], and Sri Lanka [53.1% (95% CI, 50.2% - 55.9%)] (Figure 3). The GBV was higher among illiterate than literate based on level of education [Supplementary file 4](#) figure 1). However, it did not differ based on the employment status ([Supplementary file 4](#) figure 2).

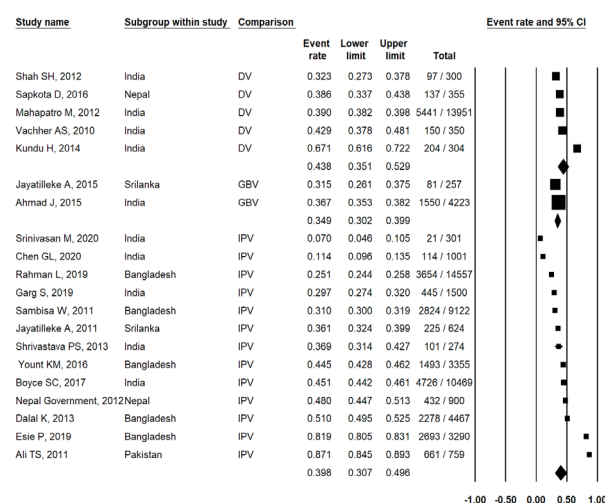


Figure 2. Forest plot showing DV, GBV, and IPV among SAARC countries among community-based studies.

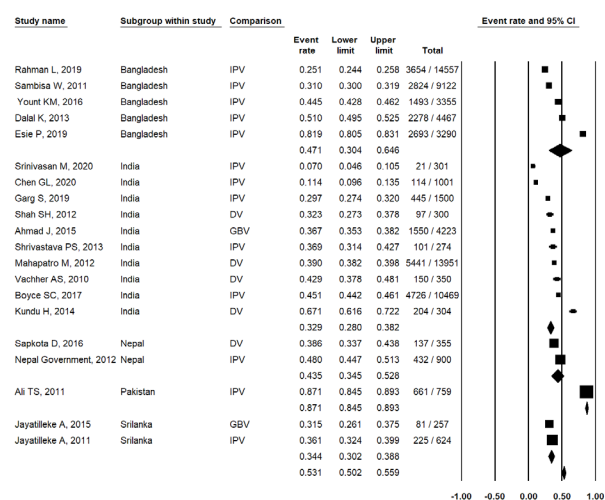


Figure 3. Forest plot showing different types of GBV based on countries among SAARC region among community-based studies.

The physical form of violence

The prevalence of physical violence in different SAARC countries among community based studies were highest in Bangladesh and lowest in Sri Lanka. The proportion of the violence for respective countries were Bangladesh [56.3% (95% CI, 43.2% - 68.6%, I²: 99.42)], Pakistan [46.5% (95% CI, 26.6% - 67.7% I²: 97.97)], Afghanistan [43.8% (95% CI, 10.9% - 83.2%, I²: 99.74)], India [25.8% (95% CI, 20.7% - 31.7%, I²: 98.63)], Nepal [24.2% (95% CI, 17.3% - 32.7% I²: 96.91)], Sri Lanka [22.8% (95% CI, 12.5%

- 37.8% I²: 93.96)] (figure 4).

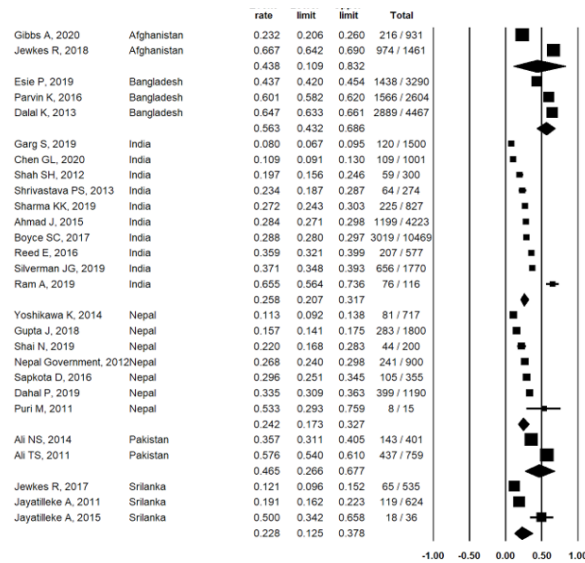


Figure 4. Forest plot showing the physical form of violence based on countries among SAARC region among community-based studies.

The sexual form of violence

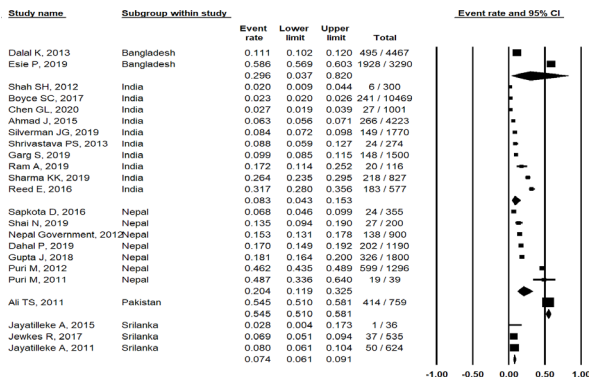


Figure 5. Forest plot showing the sexual form of violence based on countries among SAARC region among community-based studies.

The prevalence of sexual violence based on community based studies in different SAARC countries were as follows in descending order: Pakistan [54.5% (95% CI, 51.0% - 58.1%, I²:0)], Bangladesh [29.6% (95% CI, 3.7% - 82.0% I²: 99.94)], Nepal [20.4% (95% CI, 11.9% - 32.5%, I²:98.55)], India [8.3% (95% CI, 4.3% - 15.3%, I²: 99.28)], Sri Lanka [7.4% (95% CI, 6.1% - 9.1%, I²: 0)] (figure 5).

Selected studies reported both physical and sexual forms of violence and psychological form of gender-based violence in the community [Supplementary file 4](#) figure 3 and 4).

Subgroup/Sensitivity analysis

IPV within last 12 months

The overall IPV in the community within the past 12 months was found to be 38.1% (95% CI, 23.1% - 55.7%, I²:99.86). The prevalence of IPV decreased with increasing educational status of individuals with illiterate individuals with proportion of 52.8% (95% CI, 41.0% - 64.3%, I²: 90.97) and those with graduate level education with proportion of 20.5% (95% CI, 10.2% - 36.8%, I²: 80.54). Sub-analyzing the community level IPV in the past 12 months into categories of physical, psychological and sexual violence the prevalence was found to be 32.2% (95% CI, 20.2% - 47.1%, I²: 99.64), 45.8% (95% CI, 22.8% - 70.8%, I²: 99.71) and 13.9% (95% CI, 4.2% - 37.4%, I²: 99.81) respectively (Table 1).

GBV:

The lifelong community prevalence of GBV was found to be 41.7% (95% CI, 37.0% - 46.5%, I²: 98.52). Similar to IPV within the past 12 months, increasing educational status resulted in decreasing trend of GBV. The prevalence of GBV among illiterate was 59.8% (95% CI, 50.0% - 68.9%, I²: 97.99), primary level education was 49.3% (95% CI, 41.6% - 57.0%, I²: 93.35), secondary level education was 35.7% (95% CI, 30.9% - 40.8%, I²: 83.62) and graduate level education was 25.8% (95% CI, 14.1% - 42.2%, I²: 65.56).

The prevalence of GBV among women in pregnancy or postpartum period was 32.3% (95% CI, 25.1% - 40.4%, I²: 98.64) with 15.2% (95% CI, 8.7% - 25.4%, I²: 99.39) experiencing physical violence, 23.3% (95% CI, 12.7% - 38.9%, I²: 99.15) experiencing psychological violence and 8.6% (95% CI, 4.7% - 15.2%, I²: 98.64) experiencing sexual violence.

Among FSW, the prevalence of GBV was 42.1% (95% CI, 28.1% - 57.5%, I²: 99.25) with physical and sexual violence being 31.9% (95% CI, 12.9% - 59.6%, I²: 99.67) and 14.9% (95% CI, 9.9% - 21.8%, I²: 96.75) respectively.

The prevalence of GBV among HIV positive, hospitalized or disabled was 41.2% (95% CI, 32.4% - 50.6%, I²: 95.19). On further analysis the physical violence was 28.1% (95% CI, 14.6% - 47.0%, I²: 98.09), psychological violence was 62.6% (95% CI, 36.2% - 83.2%, I²: 98.68) and sexual violence was 10.3% (95% CI, 5.4% - 18.6%, I²: 95.41).

GBV in work-place or among adolescent was found to be 20.2% (95% CI, 6.4% - 48.3%, I²: 99.52).

Table 1. Showing summary statistics of subgroup/sensitivity analysis.

Study subgroup	Random effect, (95% CI)	Proportion	No of the study	No of the individuals in subgroup	I ²
Community: Within 12 months					
Overall IPV	0.381 (0.231-0.557)		6	32711	99.86
IPV: Illiterate	0.528(0.410-0.643)		3	1799	90.97
IPV: Primary	0.490(0.390-0.591)		3	1457	69.01
IPV: Secondary	0.277(0.134-0.486)		3	1456	93.32
IPV: Graduate	0.205(0.102-0.368)		3	426	80.54
IPV: Physical	0.322 (0.202-0.471)		8	14768	99.64
IPV: Psychological	0.458 (0.228-0.708)		5	6974	99.71
IPV: Sexual	0.139 (0.042-0.374)		5	10832	99.81
Community: Lifelong					
Overall GBV	0.417 (0.370-0.465)		14	37648	98.52
GBV: Illiterate	0.598 (0.500-0.689)		5	8541	97.99
GBV: Primary	0.493 (0.416-0.570)		4	4032	93.35
GBV: Secondary	0.357 (0.309-0.408)		4	3769	83.62
GBV: Graduate	0.258 (0.141-0.422)		3	186	65.56
GBV: Unemployed	0.430 (0.316-0.552)		4	5132	97.72
GBV: Employed	0.431 (0.323-.0546)		4	1046	90.04
GBV: Physical	0.303 (0.245-0.368)		19	26574	98.92
GBV: Psychological	0.405 (0.319-0.497)		13	25316	99.18
GBV: Sexual	0.132 (0.076-0.219)		18		99.45
Pregnancy and postpartum					
GBV	0.323 (0.251-0.404)		14	12675	98.64
GBV: Physical	0.152(0.087-0.254)		11	13000	99.39
GBV: Psychological	0.233 (0.127-0.389)		7	6342	99.15
GBV: Sexual	0.086 (0.047-0.152)		9	11762	98.64
FSW					
GBV: FSW	0.421 (0.281-0.575)		5	9220	99.25
GBV: Physical	0.319 (0.129-0.596)		4	7818	99.67
GBV: Sexual	0.149 (0.099-0.218)		3	7229	96.75
HIV, hospital, disable					
GBV	0.412 (0.324-0.506)		10	2848	95.19
GBV: Physical	0.281 (0.146-0.470)		7	1951	98.09
GBV: Psychological	0.626 (0.362-0.832)		6	1744	98.68
GBV: Sexual	0.103 (0.054-0.186)		6	1911	95.41

Table 1. Showing summary statistics of subgroup/sensitivity analysis.

Study subgroup	Random effect, (95% CI)	Proportion	No of the study	No of the individuals in subgroup	I ²
Adolescent/ workplace: GBV					
GBV/WPV	0.202 (0.064-0.483)		5	10131	99.52

GBV: Gender-based Violence, IPV: Intimate Partner Violence, FSW: Female Sex Worker, HIV: Human Immunodeficiency Virus, WPV: Work-place violence

Publication bias:

Publication bias among the included studies was tested using Egger's test and was presented in a Funnel plot. The Funnel plot showed an asymmetric distribution of studies, which suggests a significant amount of publication bias ([Supplementary file 4](#) figure 5-7). As a result, the random-effects model was used for analysis.

DISCUSSION

Based on studies published between 2010 and 2021, we estimate the community prevalence of domestic violence in the SAARC region to be 43.8% (95% CI, 35.1% - 52.9%), the prevalence of GBV to be 34.9% (95% CI, 30.2% - 39.9%), and the prevalence of IPV to be 39.8% (95% CI, 30.7% - 49.6%). This is comparable to the finding from the systematic review by Kalokhe et al.¹³ that 41% of women in India reported experiencing domestic violence during their lifetime. The WHO estimate of lifetime estimate of 37.7% experiencing domestic violence in the South-eastern Asian region¹³. The self-reporting estimates for domestic violence in the SAARC and eastern Asian region are consistently higher than those for other world regions. While the differences in data collection methods and the cultural differences that could influence self-reporting could account for some of the differences, the significantly more traditional family and societal structures in this region are likely important contributing factors^{1,2}. One encouraging sign is the increasing focus on this very pressing problem, highlighted in the literature.

The quality of all included studies was assessed using the JBI quality appraisal tool, and they were found to be generally of good quality. However, some studies did not report the response rates, while in some studies, the sampling method was not described in detail. Additionally, there was high variability in findings between the studies included, attributable to geographical and cultural differences within the region and the differences in methodology. Therefore, standardization of reporting tools and methods is paramount in getting better quality data to the root of the issue.

Psychological abuse was the most common form of

violence, but physical and sexual violence accounted for a significant part of the abuse. This is another indicator of the seriousness of the issue, as a large proportion of women are experiencing physical trauma and psychological abuse. A country-based analysis of community-based studies showed wide variation in the region. One study from Pakistan⁵¹ and two studies from Nepal^{26,46} and Sri Lanka^{29,53} were included in the community level analysis, so definitive conclusions cannot be drawn. Still, India had the most significant number of studies included and had the lowest reported prevalence of lifetime domestic violence (32.9%). This was true for all forms of abuse, including physical, sexual, and psychological violence.

The prevalence of domestic violence also showed significant variation by educational and employment status. Unemployed^{20,26,27,50} and illiterate^{20,27,33,39,40,50,51} women reported experiencing domestic violence higher than employed or those with higher academic levels. However, the reported lifetime prevalence of domestic violence is still alarmingly high among employed and highly educated women. This is evidence of the complex origin of the problem than just its economic aspect. The prevalence of GBV among female sex workers was roughly the same as the community prevalence of GBV. The prevalence of GBV among pregnant women or in the post-partum period was lower than the community prevalence but still significant.

Most studies included in our review were methodologically sound but varied in the questionnaires used. For example, some only looked at specific forms of violence, and some grouped different forms into the same category while reporting sexual and physical violence, in addition to the lack of clear distinction between the various forms in some cases, such as violence perpetrated by intimate partners, family members, or others. This meant that we could not analyze all studies together. Therefore, we suggest that further studies use well-defined terminologies and validated questionnaires for reporting domestic violence.

The limitations of our study stem from the subjective nature of self-reported answers, the heterogeneity in the questionnaires among the studies, and the flaws

in our review design. As a result, calculating the true prevalence of gender-based violence is difficult. Admitting to being a victim of abuse is not an easy task, especially in the SAARC region, where the roots of tradition and patriarchy run deep despite recent advances. The use of self-reporting questionnaires and anonymization of results partially addresses this problem. However, there might still be women whom these questionnaires cannot reach and are more likely to be abuse victims. Normalization of abusive behavior is another potential cause for the underreporting of domestic violence. All data included in our study areas were reported in the publications, and we did not attempt to contact authors in cases of missing or conflicting data. In addition, our database search was limited to international indexes. While this increases the chance of included studies being of higher quality, we might have missed studies published in national and regional journals which are not indexed.

The most important finding from this review is that the prevalence of domestic violence over the last decade has been alarmingly high in the SAARC region, and efforts need to be made to address it. Potential topics for further study in this field could be the impact of domestic violence in women's lives, both physical and psychological. A more granular look at domestic violence, including differences in the age of women, divorced or widowed women, or same-sex couples, would also add to our understanding of the issue. Other topics of study could be the change in prevalence and pattern of violence with time and potential tools to improve the quality of reporting, particularly the development and validation of tools that incorporate the cultural and societal norms of the SAARC region.

CONCLUSIONS

About 4 in 10 women in the SAARC region experience gender-based violence in their lifetime, a significant part of which is physical and sexual. Higher socioeconomic status and educational status are protective factors for GBV. However, more studies using standardized and validated tools are needed to understand the true extent of the problem.

CONFLICT OF INTEREST

None.

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