

BMJ Open Determinants of domestic violence among women of reproductive age (15–49 years) in Quetta, Balochistan – a mixed-method protocol

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ABSTRACT

Background Worldwide, domestic violence (DV) is a cause of death and disability among women aged 15–49 years. In Pakistan, DV appears in different forms, and only 3.2% of women report any DV. There are various factors associated with DV against women. The data are sparse for the Balochistan province due to the under-reporting and scattered population. This research study aims to determine the factors associated with DV and the types of violence among women of reproductive age. Also, to understand the perspective of community leaders and healthcare workers (HCWs) for developing interventions for DV prevention against women of reproductive age in Quetta Balochistan.

Methods and analysis A sequential explanatory mixed-method (quantitative study followed by qualitative) study design will be used to fulfil the study's objectives. Women of reproductive age (15–49 years), both married and unmarried, local residents, community leaders and community HCWs of Quetta Balochistan, will be made part of the study. A structured questionnaire will be used as the quantitative tool. Focus group discussions will be conducted using a semistructured guide for the qualitative data collection. The multivariable logistic regression analysis will be performed for the quantitative part. P value ≤ 0.05 will be considered significant. In the qualitative part, data will be transcribed, and recurrent themes/subthemes will be developed to understand the perspective and opinion regarding DV prevention.

Ethics and dissemination Ethical Approval was taken from Aga Khan University, Karachi, Pakistan. Informed written consent will be obtained from all participants. The article will be published after data collection and analysis in the journal to disseminate the results.

INTRODUCTION

Domestic violence (DV) is a worldwide epidemic. An estimated 30% of women experience physical and sexual violence globally.¹ DV includes violence perpetrated by a family member or intimate partner towards another adult.² Much of the current international evidence focuses on intimate partner violence (IPV), a subset of DV. It is a severe violation of human rights and significant

STRENGTH AND LIMITATIONS OF THIS STUDY

- ⇒ This is the first-ever community-based study in Balochistan, Pakistan, to understand both factors associated with domestic violence and the perspective to prevent it.
- ⇒ This is also the first-ever study to include community leaders and healthcare workers because they have more ideas regarding the community problems.
- ⇒ Large sample size with a multicluster sampling strategy is used to collect data from the women of reproductive age from the significant capital city of the Balochistan province.
- ⇒ Certain biases associated with the study such as recall and wish bias and generalisability, will be limited to women of reproductive age.

public health issues. Worldwide, DV is a cause of death and disability among women aged 15–49 years.³ In addition to causing injury, violence increases women's long-term risks of several other health problems, including physical and mental health issues.^{2,3} Abused women are two times more likely to have medical visits, eightfold more likely to seek mental healthcare and have an increased rate of hospitalisation than non-abused women.³

The reported lifetime prevalence of physical or sexual violence, or both, varied from 15% to 71% among different countries.^{4,5} The prevalence was highest in the WHO African, Eastern Mediterranean and South-East Asia Regions.⁶ Approximately 37% of ever-partnered women reported physical and sexual and IPV at some point in their lives.^{6–8} They reported the subsequent highest prevalence in the American area, with approximately 30% of women reporting lifetime exposure.⁹ Prevalence was lower in the high-income region, 23%, and in the European and the Western Pacific Regions, where 25% of ever-partnered women reported lifetime IPV experience.¹⁰ During the COVID-19 pandemic, a considerable increase was seen

globally in the DV and IPV cases. According to the WHO, there was a rise of 50%–60% of cases based on survivor calls for help to women organisation hotlines.¹¹

DV appears in various forms in Pakistan, and only 3.2% of women report DV.¹² In rural areas of Pakistan, the prevalence of physical violence against women was 56%.¹³ In contrast, the lifetime prevalence in urban environments is 57.6% physical, 54.5% sexual, and 83.6% psychological abuse.^{14–16}

There are different factors associated with DV against women. There is still gender discrimination in many cultures due to sociocultural influences, including unequal access of women to health services, the unequal status of gender relations, emphasis on women's primary reproduction responsibilities, lower educational level and unequal job opportunities.¹⁵ Other than these factors, women's power dynamics, patriarchy, low socio-economic status and substance abuse by a partner or family male were essential factors associated with DV against women.^{12 13 17} Infertility in women is also a significant reason for violence against women in different parts of the world.^{18 19} Moreover, research has indicated that there has been violence during pregnancy.²⁰ The reasons for violence in pregnant women are a partner's alcohol misuse, jealousy, stress and unemployment, which might be risk factors of DV during pregnancy.^{21 22}

While confirming that physical and sexual partner violence against women is widespread, the variation in prevalence between different regions emphasises that this violence is not unavoidable and needs to be addressed.

Rationale

There are two reasons for which this study is important. First the data regarding any type of violence against women of reproductive age are sparse for the Balochistan province due to the under-reporting and scattered population. Second there are some important factors which contribute to DV against women in the province, the significant factor is education. Balochistan's literacy rate is below 50% compared with other regions of Pakistan.²³ Moreover the people of Balochistan follow strict sociocultural norms like not allowing women to go outside the home for education and doing jobs, and there is gender discrimination and male dominance.²⁴ Not much is documented about violence against women from this part of the country. This study aims to identify the DV's associated factors and determine the type of violence used, that is, physical, verbal, emotional and psychological violence against women of reproductive age in Quetta Balochistan, Pakistan. The study will document the factors and types of DV in this conservative area which will pave the way for future studies and interventions in Pakistan.

Objectives

The study aims to determine the factors associated with DV, types of violence among women of reproductive age and to understand the perspective of community leaders

and HCWs for developing preventable strategies for DV against women of reproductive age in Quetta Balochistan.

Hypothesis

The odds of DV among non-married women of reproductive age (both ever married and never married) will be two times higher than in married women of reproductive age groups.

OPERATIONAL DEFINITIONS

Physical spousal violence

Push you, shake you or throw something at you; slap you; twist your arm or pull your hair; punch you with his fist or with something that could hurt you; kick you, drag you or beat you up; try to choke you or burn you on purpose; or threaten or attack you with a knife, gun, or any other weapon.²⁵

Emotional spousal violence

Say or do something to humiliate you in front of others, threaten to hurt or harm you or someone close to you or insult you or make you feel bad about yourself.²⁶

Verbal abuse/violence

Verbal abuse—a type of emotional abuse—is when someone uses their words to assault, dominate, ridicule, manipulate and/or degrade another person and negatively impact this person's psychological health. Verbal abuse is a way for a person to control and maintain power over another person.²⁶

Psychological abuse/ violence

Psychological violence is intimately related to a person's inability to tolerate another when circumstances make communication difficult.²⁷

METHODS

Study design

A sequential explanatory mixed-method (quantitative study followed by qualitative) study design will be used. A cross-sectional study design will be used for quantitative part followed by a phenomenological approach in the qualitative part.

Study setting and study site

It will be conducted in the district of Quetta, Baluchistan, the provincial capital of Balochistan. It has two tehsils that is, Chiltan and Zarghoon. These tehsils are further constituted of 50 Union councils. The district's total population is 2.5 million, and there are 263 143 households in the district. Baloch and Pashtuns inhabit the community with segments of Hazara and Punjabis (Pakistan Bureau of Statistics, Census 2017).

Study participants

Study participants will be women of reproductive age (15–49) years for quantitative component. For qualitative

component, data will be collected from community leaders and community healthcare workers (HCWs) of Quetta Balochistan.

Study duration

This study is planned to start from 1 August 1 2022, and the expected end date will be 31 March 2023. The study duration will be 8 months.

Eligibility criteria

All women of reproductive age (15–49 years), both ever married and never married and resident of the Quetta for at least 5 years will be included in quantitative component of the study.

Community leaders and community HCWs of Quetta Balochistan are willing to participate in the study and give informed written consent which will be included in the qualitative part of study.

Sampling strategy

We will use a two-stage sampling design; first will select households from the list taken from the health department of government of Balochistan. This selection of households in each Union Council (UC) will be manmade by a randomiser through the computer-generated list of all households in the UC. Once the households are selected, data collectors will visit the selected families for data collection. A single woman from each home will be selected randomly for data collection in each household, if the randomised woman does not provide informed consent, the next woman in the same household will be approached, and if all the women of reproductive age in the randomly selected household refuse to provide data, the adjacent household will be selected for data collection. For the qualitative part, a non-probability purposive sampling strategy will be used.

Sample size

For the quantitative part, the sample size was calculated using the factors associated with DV in women of reproductive age in Quetta, Pakistan; in this regard, the different factors, that is, number of reasons for which wife-beating is justified, women afraid of husband and spouse education were identified from the literature.^{14 23}

The proportion of all these factors varied in the literature, level of spouse education with exposed 33.8% and unexposed 26.2% to the number of reasons for which wife beating is justified with exposed 29.3% to unexposed 39.23%.^{13 14 23 25 26} Considering the proportion to gather with 80% power, 95% CI and 1:1 of unexposed to exposed in the sample, the estimated sample size was 367. Considering the design effect of two that occurs for multistage cluster sampling, the required sample size was 734.

The formula and calculation are as follows:

$$n = [Z^2 a/2 (pq)] + B^2 \times Design\ effect$$

where $Z^2 (a/2) = (1.96 \text{ at } 95\% \text{ CI})$; p =proportion of DV (0.5); q =proportion of no DV $(1-0.5)=0.5$; B^2 =bound on error $(0.05)^2$; design effect=2; the final sample size

adjusting to the cluster effect came to be $(367 \times 2) = 734$. With the inclusion of 5% non-response and missing data, the final sample size came to be 770 dyads.

In the qualitative part, two Focus Group Discussions (FGDs) will be conducted, one with community leaders and community HCWs. A maximum of 12 participants will be required for that process.

Data collection procedure

Data collectors will visit the randomly selected houses for the quantitative data. Data collectors will be female psychology students or nursing students, considering the topic's sensitivity. For security reasons, male field supervisors will be allotted with the data collectors' team to communicate with the community and lead the data collection process. Women will be screened for eligibility and enrolled after taking written informed consent. A study ID will be assigned to her. Data collectors will be collecting demographic data, and specific questions related to DV will be asked. During the data collection process, privacy and confidentiality will be maintained. The data will be collected using a standard questionnaire (Pakistan Demographic Health Survey (PDHS)-Domestic violence module). At the end of the interview, data collectors check the questionnaire for errors, inconsistencies and missing values before leaving the house. If no woman of reproductive age lives in the house or locked houses, the next house will be approached.

The FGDs will be conducted in the next process to understand the perspective of community leaders and HCWs regarding DV and its prevention strategies. A semi-structured guide will be used for this purpose. To mitigate risk and women reply without any fear it will be made sure that the participating women have no risk or harm of violence due to this study. The neighbourhoods will be identified with the help of community leaders, and it will be made sure to collect data in the nearby basic health units, otherwise in the absence of a male or house head.

Data management

The quantitative data will be collected using Epidata software V.3.1. A data entry operator will enter the data. Every form has a unique participant identification (ID) to avoid duplication. Principal investigator (PI) will check 10% of randomly selected questionnaires for errors, inconsistencies and missing values. After data entry, the entered data will be password protected. Also, backup files for electronic data will be maintained to prevent data loss. For qualitative data, all the interviews will be audio recorded with participants' permission, which will be transcribed and translated for themes/subthemes development.

Data collection tool

For the quantitative data collection, Demographic Health Survey Domestic Violence tool will be used to collect the data from participants. For basic information about the participants, a questionnaire will be developed. The reliability of the tool was 0.9, calculated using Cronbach's

alpha. The qualitative tool will be developed for FGD, which will have questions regarding the perception of community leaders and HCWs to address the issue and develop strategies to prevent DV. The PI will lead FGD with the team at community centres/halls. The strong through every mile (STEM) theoretical framework will focus on tertiary prevention, coping and recovery from DV. STEM's expected outcomes are supported by four main theoretical frameworks: self-determination theory, self-efficacy theory, locus of control and social capital theory. Additionally, the empowerment, happiness and mindfulness literature supports STEM's anticipated outcomes.⁵

STUDY VARIABLES

Outcome variable

DV, according to WHO violence is defined as the intentional use of physical force and power, threatened or actual, against oneself, another person, or against oneself another person, or a group or community that either result in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment and deprivation and the act of this violence in a domestic setting is called DV against women of reproductive age, both married and unmarried, residents of Quetta, Balochistan. This variable will be binary violence against women (Yes/No).

Measurement of violence

PDHS 2017–2018 DV tool will be used. Information will be obtained from both married and unmarried women on their experience of violence committed by their current and former husbands and others. More specifically, violence committed by the current husband (for currently married women) and by the most recent husband (for formerly married women). There will be three specific domains with operational definitions.

Covariates

Different factors are associated with DV against women. The individual factors that will be assessed are women's age at the time of the survey, ethnicity, Pashtun, Baloch, Hazara women's highest level of education, primary, secondary graduate, postgraduate women's occupation, housewife, teacher, working in health sector husband/partner's age, husband's highest level of education, types of occupation of the participant and partner, type of family (nuclear, joint family), the total number of family members of the victim or participant, the total number of children of the participant, years of marriage of the participant, monthly family income of the participant in rupees, geographic location of the participant and substance abuse like drugs abuse, cocaine abuse, antidepressant and marijuana.

A priori confounders

Age of the participant, level of education, occupation and geographical location are categorised as a priori

confounders in this research. Literature reports lower age groups have more chances of violence compared with senior, and differences in education can be a confounder, as more educated woman is an empowered woman. Moreover, a working woman faces less violence compared with a housewife. There is a significant difference in urban and rural areas populations which affects the violence rates.^{20 24}

Qualitative covariates will be the perspective and opinion of community leaders and HCWs for developing potential strategies for preventing DV against women.

Plan of statistical analysis

Mean±SD will be calculated for all normally distributed continuous variables, for example, the age of subjects. Frequencies and percentages will be computed for all qualitative variables.

The outcome or dependent variable of the study is binary; therefore, binary logistic regression will be used. The univariate analysis will be done to know the individual effect of the independent variable when regressed against DV. P value less than or equal to 0.25 will be considered significant. Those variables that are not significant will be removed after this process.

A stepwise approach will be used for multivariable analysis. Multicollinearity will be checked between all the variables before multivariable analysis. Multicollinearity will be assessed through different tests. After exploring multicollinearity, the multivariable analysis will be performed. Variables that will be significant at the univariate level will be added one after another in the model based on a p value less than or equal to 0.05 is the cut-off for the significance of multivariable analysis. Biologically plausible interactions between variables will also be assessed in the main model, if there is no interaction found between variables, then we will check for confounders. STATA V.17 will be used for the analysis.

Qualitative data will be transcribed, that is, the data collected from focus groups discussion, and two independent coders will review the transcript and develop a codebook from the responses. A qualitative content analysis using Atlas.ti software (Berlin, Germany) will be performed to identify recurrent themes/subthemes related to perspectives and opinions regarding DV prevention.

LIMITATIONS AND VALIDITY

Internal validity

The study has a few biases addressed in both designs and will be addressed in the analysis phase.

Recall bias

Some of the questions required the participant to recall, especially related to domestic/intimate partner or gender-based violence that happened in the past, and there will be possible to recall issues. Appropriate data collection measures will be taken to mitigate the risk of

recall. Hospital records for violence can be checked if available to avoid recall bias.

Wish bias

Certain questions in the questionnaire can produce wish bias if a participant tries to hide certain information related to personal information or violence. To address this bias, the questionnaire is designed so that these questions will be asked less sensitively. However, the possibility of wish bias cannot be excluded.

External validity

The results will be generalised to all women of reproductive age (15–49 years). The factors may differ in different settings like social, cultural and religious norms.

ETHICS AND DISSEMINATION

The approval for the study was obtained from Aga Khan University's Ethical Review Committee (ERC Ref# 6114). The data collectors will be given proper training on ethical consideration and sensitivity of the topic before beginning the interview process. A proper process for the data collection will be followed to comply with ethical considerations. The complete data collection process, including consent, will be taken in a separate room or place. Data collection will be done behind closed doors at the participant's home, if the participant is not comfortable. In that case, she will be called with her house head permission at a separate place like the community hall, community head's house, lady health visitor (LHV) clinic or basic health units. There will be no force on data collection if her husband or house head refuses to give permission. Data collectors will be properly trained to handle any unwanted situations. They will be given proper counselling training, especially during emotional breakdowns and situations, to empathise with the participant. Data collectors will be females, either nurse, LHVs or psychology students, and should have the proper experience to provide emotional support and comfort.

Furthermore, during data collection, the participant's name will be kept anonymous to ensure anonymity and confidentiality. All participants will be given complete information about the study, and only after that will they provide their consent which shall be voluntary. Participants will also be informed that they can discontinue the interview process during the interview without facing any consequences. Before going to ask a sensitive question related to the study, permission will be granted from the participant, the collected data will be protected and access will be only given to primary investigators. Participants will also be referred to appropriate counselling and assistance as per need and requirement. The article will be published after data collection and analysis in the journal to disseminate the results.

Referrals for DV victims

Participants who will need medical attention or have any adverse health consequences due to violence will be referred to non-governmental organisations (NGOs) or health facilities for proper counselling and medical help. Before the study, such organisations will be identified and listed for referral in Quetta. This study will not bring any direct benefit to the participants. However those who would ask for help and who do not will be provided with NGOs, phone numbers and hospital contacts to seek help if they need it.

Public health implication

Violence against women is increasingly seen as a public health problem globally. This will help fill research gaps for associated factors with DV against women in Quetta. The findings from this research will help different sectors to develop the interventions and the government to plan and strategise strict laws and policies to control or end the violence against women in Pakistan. Moreover, this will generate evidence through numbers for further understanding of the cause and reasons of violence and will be a pioneer for violence research in Quetta Balochistan.

Patient and public involvement

As this is a study protocol no patients were involved.

Contributors SM -conceptualisation, methodology and writing original draft. SS was involved in writing, reviewing and editing.

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Competing interests None declared.

Patient and public involvement Patients and/or the public were not involved in the design, or conduct, or reporting or dissemination plans of this research.

Patient consent for publication Not applicable.

Ethics approval Aga Khan University, Ethical review Committee (AKU-ERC)

Provenance and peer review Not commissioned; externally peer reviewed.

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