ORIGINAL RESEARCH

## Intimate partner violence in urban Pakistan: prevalence, frequency, and risk factors

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Correspondence: Tazeen Saeed Ali School of Nursing, Aga Khan University, Stadium Road, PO Box 3500, Karachi 74800, Pakistan Tel +92 213 493 0051 Fax +92 213 493 4294 Email tazeen.ali@aku.edu **Background:** Intimate partner violence (IPV) is an important public health issue with severe adverse consequences. Population-based data on IPV from Muslim societies are scarce, and Pakistan is no exception. This study was conducted among women residing in urban Karachi, to estimate the prevalence and frequency of different forms of IPV and their associations with sociodemographic factors.

**Methods:** This cross-sectional community-based study was conducted using a structured questionnaire developed by the World Health Organisation for research on violence. Community midwives conducted face-to-face interviews with 759 married women aged 25–60 years.

**Results:** Self-reported past-year and lifetime prevalence of physical violence was 56.3 and 57.6%, respectively; the corresponding figures for sexual violence were 53.4% and 54.5%, and for psychological abuse were 81.8% and 83.6%. Violent incidents were mostly reported to have occurred on more than three occasions during the lifetime. Risk factors for physical violence related mainly to the husband, his low educational attainment, unskilled worker status, and five or more family members living in one household. For sexual violence, the risk factors were the respondent's low educational attainment, low socioeconomic status of the family, and five or more family members in one household. For psychological violence, the risk factors were the husband being an unskilled worker and low socioeconomic status of the family.

**Conclusion:** Repeated violence perpetrated by a husband towards his wife is an extremely common phenomenon in Karachi, Pakistan. Indifference to this type of violence against women stems from the attitude that IPV is a private matter, usually considered a justifiable response to misbehavior on the part of the wife. These findings point to serious violations of women's rights and require the immediate attention of health professionals and policymakers.

**Keywords:** intimate partner violence, domestic violence, Pakistan, gender inequality, prevalence, frequency, risk factors

### Introduction

Intimate partner violence (IPV) is the most common form of violence faced by women in both high- and low-income countries and, due to its magnitude, is recognized as a substantial public health problem.<sup>1</sup> One in three women worldwide is reported to experience IPV at some point in her life.<sup>2</sup> This violence confers tremendous suffering on the women affected, as well as on their children.<sup>3,4</sup> According to the World Health Organisation's multicountry study on violence against women in intimate relationships, the lifetime prevalence of physical or sexual violence ranges between 15% and 71%, and past-year prevalence also shows a wide variation (4%–54%), with the lowest rates found for Japan and the highest for Ethiopia, Peru, and Bangladesh.<sup>4</sup>

There are different theoretical models that can be used to understand why violence occurs within intimate relationships. These include psychopathological, sociological, gender, and family systems theories. Sociological theories indicate that low education, economic vulnerability, stress, lack of support from authorities (healthcare services, social welfare), and a closed social network increase the risk of IPV.5 Gender theories describe the cultural and social constructions of gender, where masculinity is associated with aggression and power, and femininity with subordination.<sup>5,6</sup> This, in combination with a material gender-power dimension, where men are assigned more economic and political power and where women are more dependent, increases the risk of violence. Psychopathological theories bring in individual men's interpersonal problems and functional deficits, including certain psychiatric diseases explaining variations between individuals. Family systems theories focus on communication, relationship, and problem-solving skills of couples in whom violence occurs.<sup>5</sup>

Pakistan is a low-income country with 172 million inhabitants. It is a male-dominated society, where partner violence is accepted as a cultural norm and viewed as normal behavior within a marriage.<sup>7</sup> Indifference to this type of violence against women stems from attitudes that partner violence is a private matter and usually a justifiable response to misbehavior on the part of the wife, although it is understood as being against Islamic teachings.<sup>7–9</sup> Most Pakistani women are ignorant of the fact that violence is a crime, and those who do report violence fear punitive action from the husband's family and/or losing their children, and few women of middle and lower class backgrounds can survive independently.<sup>10</sup> Moreover, social norms strongly discourage women from living on their own, especially young women.<sup>10</sup>

Poverty is a substantial problem faced by a large proportion of the population, resulting in ongoing efforts to satisfy the basic necessities of life.<sup>11</sup> According to the 2000–2007 Pakistan demographic health survey, more than half of the women and about one-third of the men in Pakistan lack basic education.<sup>12</sup> Approximately 30% of women are in some kind of paid employment,<sup>12</sup> but most women in Pakistan are confined to the home, doing housework for the extended family, and are excluded from decision-making.<sup>7</sup>

Studies from Pakistan on IPV against wives are few. Furthermore, these studies are either facility-based, based on small convenience samples, and/or conducted outside of urban Karachi. These studies indicate a prevalence of 16%–76% for physical violence and 12%–16% for sexual violence. For psychological violence, the prevalence was found to be at least 23% and reaching extremely high levels (>60%),<sup>7,13,14</sup> with a rising trend noted during the past 30 years for all three forms of violence.<sup>10</sup>

Studies in other Asian countries have also reported high prevalence figures. In rural Vietnam, the lifetime and past-year experience of physical IPV amounted to 31% and 8%, respectively.<sup>15</sup> The Indian National Family Health Survey, conducted across all Indian states in 2005-2006, found that 35% of 28,139 married women reported experiencing life-time physical IPV, with or without sexual violence from their husbands, 7.9% reported both physical and sexual IPV, and 28% reported experiencing physical IPV only.16 From eastern India, a study of 1718 married women found that 16% were exposed to physical violence and 25% to sexual violence, while 52% suffered psychological abuse in their lifetime.<sup>17</sup> Another study from India comprising 9938 women aged 15-49 years reported a high prevalence of physical violence (40%).<sup>18</sup> A study from Iran of 2400 married women found that 15% had suffered physical abuse from their husbands in the previous year, 42% sexual abuse, and 82% various degrees of psychological abuse.19

Cultural norms in Pakistan stipulate that violence against women is not to be discussed openly.<sup>7</sup> To perform a large-scale community-based study on this topic demands collaboration with local health organizations, because government-run health facilities are often poorly staffed and without resources for research and surveillance studies.

The aim of this community-based study, conducted among married women living in low- and middle-income areas in urban Karachi, was to investigate the prevalence and frequency of physical and sexual violence and psychological abuse perpetrated by husbands against their wives, and any associated sociodemographic risk factors.

#### Methods

#### Study design and population

This cross-sectional study was performed in Karachi, Pakistan. Karachi has about 16 million inhabitants and forms a district within the Sindh province.<sup>12</sup> Karachi is further divided into 18 towns. In this study, 759 married women aged 25–60 years, living in two of the towns with approximately 720,000 inhabitants, were included. The response rate was 93.7%.

Due to the restrictive attitudes concerning women's movements and decision-making in Pakistani society,<sup>14,20</sup> it was necessary to link up with a health organization that maintained a surveillance system for data collection and

had health workers who were known in the community. Government health facilities were initially contacted, but because they lacked resources, we were advised to contact the Health and Nutrition Development Society (HANDS).<sup>21</sup> HANDS is a nongovernmental organization working closely with the government health services, and provides basic health facilities, primary education, and income-generating opportunities, as well as institutions to empower communities in the low- and middle-income areas of Karachi.21 HANDS' facilities are equipped with trained people who shoulder full responsibility for local healthcare services at the primary care level (maternal and child health, immunization, oral rehydration therapy, control of diarrheal diseases, nutrition counseling, growth monitoring, treatment of minor illnesses), and field sites have been established to follow up on these activities. Community midwives with 18 months of training are available at these facilities to provide general antenatal and postnatal care, to assist during deliveries, and to provide family planning services.<sup>21</sup> These midwives carried out the data collection for this study.

HANDS manages the health facilities in two major towns (Gadap and Bin Qasim), and has established 10 health field sites in these towns. For this study, six of these health field sites were randomly chosen for data collection. Many different ethnic populations reside in these towns. Socioeconomically, the population belongs mainly to the lower and middle socioeconomic strata.<sup>22</sup> Therefore, the data gathered from these two towns can only be generalized to the lower and middle socioeconomic groups of Karachi.<sup>22,23</sup>

#### Data collection

The data collection instrument used was the Multi-country Study on Women's Health and Life Experiences Questionnaire developed by the World Health Organisation for public health research, with a focus on interpersonal violence.<sup>24</sup> The questionnaire was developed for use in different cultures and is considered to be crossculturally appropriate. To date, it has been used in more than 15 countries. The abuse questions were developed on the basis of a variety of other abuse assessment scales (Index of Spouse Abuse and the Conflict Tactics scales) with established reliability and construct validity.<sup>25,26</sup>

This instrument was translated into Urdu, the national language generally spoken in Pakistan. A few items were excluded, regarded as being unacceptable in this context, such as women's alcohol consumption patterns, whether women acted as heads of the households, and if the husband had multiple sex partners. The questionnaire went through face and content validity assessment by experts, including a psychologist, an epidemiologist, a sociologist, a community-based medical doctor, the field supervisor, a public health specialist, and the data collectors. The final questionnaire contained items addressing sociodemographic and psychosocial factors, general and reproductive health, different forms of violence, its frequency, and any health effects of the violence inflicted.

The data were collected by community midwives employed by HANDS in March-August 2008, using a multistage random sampling technique in the selected area (Figure 1). In each field site, and via the surveillance system set up by the community midwives, the required number of households was randomly selected (using computer-generated numbers from Epi Info<sup>TM</sup>) from a list of all households in which women of the required age resided. Ten women refused to participate in the initial stage of the interview and were replaced by a neighboring woman of the same age. A further 41 women decided to discontinue the interview when half-way through, and were not replaced, which gave a dropout rate of 6.3%. In a household with more than one eligible woman, only one woman was selected, by asking the youngest and the oldest, alternately. Information related to the husbands was obtained from the women, and relates only to the current husband.

### Sample size calculation

In order to detect a 1.6-fold increase in risk of physical, sexual, and/or psychological violence and abuse with 80% probability and an estimated 20%–30% prevalence rate in the study sample, we calculated that we needed a sample size of about

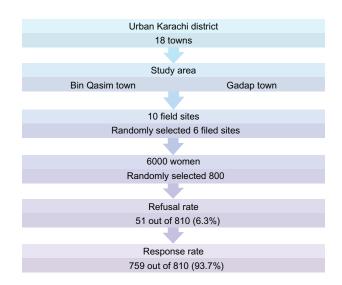


Figure I The sampling strategy of the study and its response rate.

664 individuals. It was decided to aim for 800 respondents, and 810 were approached. In total, 759 women were included in the study.

### Training of data collectors

Six community midwives received training for one week, conducted by the main author of this study and a psychologist in collaboration with members of the Women Lawyers' Association (a nongovernmental organization that supports women's legal rights) and HANDS. The training included the rationale behind the study, known prevalence and causes of IPV, women's vulnerability, ethical considerations, and communication and interview skills. Two of the interviewers were lost during the training period and four data collectors continued.

Each interview was conducted in the local language, Urdu. The study was presented as a women's health study to the household members, and not until the conversation was safe from being overheard were any sensitive questions asked. The interviews were conducted in the respondent's home, where privacy could be ensured, otherwise at a nearby school or HANDS facility. To ensure quality of the data, about 5% of the participants were reinterviewed at random, and only minor differences were detected in the responses given.

#### Variables

#### Dependent variables

IPV is defined as any act of physical, sexual, or psychological abuse by a current or former partner, whether cohabiting or not.4 Physical violence was measured as moderate (slapping, throwing things, pushing, shoving) or severe (hitting, kicking, dragging, beating, choking, burning). Sexual violence was defined as being coerced to perform sexual acts against the woman's will and physically forced into sexual intercourse by the husband. Psychological abuse was measured as insulting the woman or making her feel bad about herself, belittlement or humiliation in front of others, doing things to scare or intimidate her on purpose, and threats to hurt her or someone she cared about. Lifetime exposure to violence after marriage was assessed by items assessing acts of violence, forming composite measures for physical, sexual, and psychological violence, respectively, along with their frequency (how often it had occurred). Past-year exposure was obtained as a summary measure only of the different forms of violence and not by individual items. For bivariate and multivariate analyses, the dependent variables were dichotomized into experience of violence as opposed to no experience of physical or sexual violence or psychological abuse, respectively.

#### Independent variables

Sociodemographic variables were analyzed as independent risk factors. Age was divided into three groups and later dichotomized into younger and older age groups (25-35 years and 36-60 years). Educational attainment was grouped into no education, primary (up to eight years), secondary schooling (9-10 years), intermediate (11-12 years), and higher education (at least 13 years), and for multivariate purposes education was dichotomized into no formal education as opposed to any length of schooling. The employment status of the husbands and wives were dichotomized into being employed or not. Those that were in paid employment were further categorized as unskilled workers (eg, construction, messenger, landlord, farmer, watchman, servant, shopkeeper), skilled workers (eg, fisherman, gardener, carpenter, trader, driver, tailor), and low- and medium-level professionals (eg, soldier, police officer, teacher, health professionals, receptionist, secretary, lady health visitor, school teacher). This variable was further dichotomized into skilled workers (including the professionals), and unskilled workers.

The socioeconomic status variable was constructed from a list of household assets. Each respondent marked the assets available in the household and these assets were assigned different weights according to how common they were in households and their market price, eg, electricity, radio, and/or television (rated as 1), telephone and/or computer (2), and refrigerator and/or air conditioner (3). The weightings were determined by a team of researchers from the Aga Khan University, with experience of conducting communitybased studies. The weights were summed and divided into quartiles. Families up to the 25th centile were rated as being of low socioeconomic status, and then each quartile was rated as lower-middle socioeconomic status, upper-middle socioeconomic status, and high socioeconomic status, respectively. Socioeconomic status was further dichotomized into low socioeconomic status as the exposure category versus middle and upper socioeconomic status. This way of grouping households into different socioeconomic status groups has also been used by other studies in this area.<sup>27,28</sup>

The number of children was grouped into five categories, ie, 0, 1–2, 3–4, 5–6, and  $\geq$ 7. This variable was thereafter dichotomized into 0–4 children as opposed to  $\geq$ 4. The number of family members was measured as those living

together and sharing one kitchen in a household. The variable was dichotomized into the number of members in the family. One to four members was considered the reference and  $\geq 5$  as the exposure category.

## Statistical analysis

SPSS (v 10.0; SPSS Inc, Chicago, IL) was used for all statistical calculations.<sup>29</sup> Odds ratios (OR) with a 95% confidence interval (CI) level were used in the bivariate and multivariate analyses to estimate associations between sociodemographic variables and lifetime exposure to all three forms of violence. Statistically significant variables in the bivariate analyses were entered into the multivariate model, one at a time. Final models are displayed.

### Ethical considerations

The ethical principles of violence research defined by the World Health Organization were strictly followed.<sup>30</sup> All respondents were informed about their free choice to participate and to withdraw whenever they wished during the research phase. Data collectors secured written consent from all respondents before the interview. Those women who disclosed experiences of violence and expressed a need for support were referred to the Pakistan Women Lawyers Association and Women's Social Security Department, Government of Pakistan, a social welfare department for women, located in the Sindh secretariat, where counseling is given by female lawyers and social workers, who further offer support in divorce cases and provide income generation schemes to victims of violence. The study was approved by the Institutional Ethical Review Committee of Aga Khan University in Karachi, Pakistan. Linking up with the HANDS organization secured the data collection process, because unfamiliar women introducing themselves as data collectors would hardly have been accepted by the families. Furthermore, data collectors unfamiliar to the households may have been put at personal risk. The women who participated in the study were provided with referrals to mental health professionals, and lawyers for a free of cost consultation. Moreover, women in the community were also given awareness sessions by the lawyers with regard to women's rights.

## Results

## Sociodemographic pattern

Of the participating women, about half had no formal education (47.6%) and the majority of them were housewives (Table 1). Of the male spouses, 36.2% had no formal

Table I Sociodemographic and psychosocial factors of respondents
and their husbands (n = $759$ )

	and their husbands (n = 759)						
Characteristics	n = 759	%					
Respondents							
Age group (years)							
25–35	447	58.9					
36-45	228	30.0					
46-60	84	11.1					
Education	241	47.4					
No formal education	361	47.6					
Primary school (<6 years)	175	23.1					
Secondary school (6–8 years)	110	14.5					
Secondary school (9–10 years)	87 17	11.5 2.2					
Intermediate (11–12 years) Higher education (≥13 years)	9	1.2					
Employed $(\geq 13 \text{ years})$	,	1.2					
Yes	110	14.5					
No	649	85.5					
Occupation	017	05.5					
Housewife	649	85.5					
Unskilled workers	18	2.4					
Skilled workers	51	6.7					
Low and medium level professionals	42	5.5					
Husbands/partners							
Age group (years)							
25–35	307	40.4					
36-45	263	34.7					
46–90	189	24.9					
Education							
No formal education	275	36.2					
Primary school (<6 years)	89	11.7					
Lower secondary school (6–8 years)	108	14.2					
Higher secondary school (9–10 years)	185	24.4					
Intermediate (11–12 years)	63	8.3					
Higher education ( $\geq$ 13 years)	39	5.1					
Employed							
Yes	746	98.3					
No	13	1.7					
Occupation							
Unemployed	13	1.7					
Unskilled workers	500	65.9					
Skilled workers	145	19.1					
Low and medium level professionals	101	13.3					
Family factors							
Socioeconomic status							
Low	242	31.9					
Medium low	172	22.7					
Medium high	202	26.6					
High	143	18.8					
Number of children							
0 children	41	5.4					
I–2 children	249	32.8					
3–4 children	221	29.1					
5–6 children	170	22.4					
≥7 children	78	10.3					
Number of family members	2//	25.0					
I-4 family members	266	35.0					
5–17 family members	493	65.0					

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schooling and 65.9% were unskilled workers. Of the families, 32.7% had more than four children, and 65.0% of the house-holds contained five or more members.

## Forms of violence

Of the 759 women, 57.6% reported a lifetime experience of physical violence and, of these, 54.2% reported severe incidents of physical violence (Table 2) and 56.3% reported past-year exposure to physical violence. For sexual violence, the corresponding figures for lifetime and past-year prevalence were 54.5% and 53.4%. For psychological violence, the corresponding figures were 83.6% and 81.8%, respectively. In the majority of cases, violence was experienced as repeated acts, ie, more than three times per year (see Table 2 for detailed prevalence figures).

The different forms of violence and their overlapping nature are shown in detail as a Venn diagram of lifetime exposure in Figure 2. The most commonly occurring single form was psychological violence (19.1%). An overwhelmingly large group reported all three forms of violence, ie, 43.9% (n = 333) in their lifetime and 87.1% (n = 661) reported any kind of violence exposure.

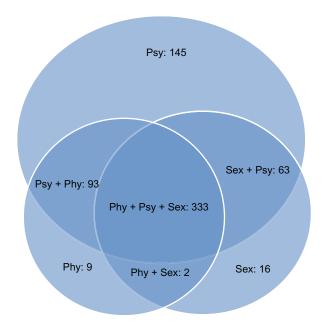
# Associations with sociodemographic and psychosocial factors

Poor socioeconomic life circumstances constituted the main risk factor for all forms of lifetime violence (Table 3). Older women were more at risk of physical and sexual violence than their younger counterparts, with an OR of 1.65 and a 95% Confidence Interval [CI] of 1.23-2.23. Physical and sexual violence were associated with almost identical risk factors, ie, no formal education for either the woman or the husband, older age of the husband, more than five children in the family, and living in an extended family setup, as compared with having fewer children and living in a smaller family, respectively (Table 3). Statistically significant risk factors for psychological abuse were the husband having no formal education (OR 2.21, CI: 1.41-3.47) and being an unskilled worker or unemployed (OR 3.18, CI: 2.15-4.71) and, linked to this, low socioeconomic status of the family (OR 2.21, CI: 1.37-3.54). The educational level of the husband had a statistically significant association with all three forms of violence over the lifetime. Analyses of risk factors for past-year experience of any forms of violence were carried out, but are not shown in the tables because these were almost the same as for lifetime exposure.

Table 2 Lifetime prevalence and frequency of different forms of violence among married women (n = 759)

Forms of violence	Life time prevalence						
	Violence experienced	Number of events					
		1–2	3–4	≥5			
Physical violence <sup>a</sup>	n (%)	n (%)	n (%)	n (%)			
Moderate physical violence							
Slapped/threw something	227 (29.9)	3 (0.4)	155 (20.4)	69 (9.I)			
Pushed/shoved	384 (50.6)	9 (1.2)	302 (39.8)	73 (9.7)			
Summary measure of moderate physical violence	402 (53.0)	9 (1.2)	318 (41.9)	75 (9.9)			
Severe physical violence							
Hit with a fist that could hurt	306 (40.3)	8 (1.1)	230 (30.3)	68 (8.9)			
Kicked/dragged or beating	330 (43.5)	3 (0.4)	260 (34.3)	67 (8.8)			
Choked or burnt on purpose	183 (24.1)	3 (0.4)	3  ( 7.3)	49 (6.5)			
Summary measure of severe physical violence	411 (54.2)	9 (1.2)	329 (43.3)	73 (9.6)			
Summary measure of physical violence	437 (57.6)	10 (1.3)	351 (46.2)	76 (10.0)			
Sexual violence <sup>a</sup>							
Physically forced to have sexual intercourse	257 (33.9)	5 (0.7)	188 (24.8)	64 (8.5)			
Did have sexual intercourse when you did not want too	414 (54.5)	10 (1.3)	330 (43.5)	74 (9.8)			
Summary measure of sexual violence	414 (54.5)	10 (1.3)	330 (43.5)	74 (9.8)			
Psychological abuse <sup>a</sup>							
Insulted or made her feel bad about herself	586 (77.2)	I (0.1)	383 (50.5)	202 (26.7)			
Belittled or humiliated her in front of others	567 (74.7)	5 (0.7)	422 (55.6)	140 (18.5)			
Did things to scare or intimidate her on purpose	562 (74.0)	6 (0.8)	415 (54.7)	141 (18.6)			
Threaten to hurt her or someone she cared about	578 (76.2)	6 (0.8)	431 (56.8)	141 (18.6)			
Summary measure of psychological abuse	634 (83.6)	8 (1.1)	480 (63.2)	146 (19.3)			
Psychological abuse alone	145 (19.1)	3 (0.4)	128 (16.9)	14 (1.8)			

Note: "Participants reported more than one incident.



**Figure 2** Venn diagram illustrating the overlapping between the different forms of violence for life time exposure. Physical (Phy), sexual (sex) and psychological (psy) violence. Number of women are given for each specified category.

Multivariate analyses were then performed to test for possible confounding factors (Table 4). For physical violence, factors related to the husband that were statistically significant included no formal education (adjusted OR 1.87, CI: 1.31–2.67), belonging to the unskilled worker group (adjusted OR 1.84, CI: 1.32-2.58), and number of family members being more than five in the household (adjusted OR 1.49, CI: 1.03-2.14). For sexual violence, the woman's lack of formal education (adjusted OR 2.27, CI: 1.65–3.12), more than five family members living in the household (adjusted OR 1.49, CI: 1.03-2.15), and low socioeconomic status (adjusted OR 1.89, CI: 1.35-2.65) proved to be statistically significant risk factors. For psychological abuse, the husband being an unskilled worker (adjusted OR 2.69, CI: 1.77-4.09) and of low socioeconomic status (adjusted OR 1.93, CI: 1.18-3.15) remained statistically significant in the multivariate analysis.

#### Discussion

The results of this study revealed extremely high lifetime and past-year prevalence rates, and also a high frequency of all forms of IPV against women belonging to the lower and middle income strata in Karachi. The picture that evolves is that psychological abuse seems to be present in more than 80% of the families. Furthermore, the prevalence figures for physical and sexual violence are of similar size; more than 50% of the population in this study reported such experiences, and 44% reported exposure to all three forms of violence. Our findings point to poor life circumstances contributing to IPV in this setting, including low occupational status of the husband, low family socioeconomic status, too many children, and living with extended family.

The major strength of our study was its community-based nature, and the respondents having been selected by random sampling. Furthermore, it comprised a comparatively large sample from a country where violence in the family is not discussed or questioned openly. In addition, a well-known instrument was used for data collection, and the response rate was extremely high (93.7%). It was possible to reach out to individual women because data collection was done by community midwives who were well trusted in the community. This trust was essential because IPV is an extremely sensitive topic in Pakistan, where it is generally considered an inappropriate subject for a woman to discuss with a stranger.

One of the weaknesses in our study is that the two towns selected for this study comprised people only from the lower and middle socioeconomic strata, but failed to reach the upper socioeconomic strata. However, we do consider the data to be valid and representative of similar socioeconomic areas in Karachi, because the population was carefully selected at random in a multistaged procedure. There is reason to believe that violence against women is even more common in rural areas, squatter settlements, and the suburbs, due to extremely low educational attainment levels and poverty amongst both men and women.

A further weakness is that we were not able to acquire specific data on past-year violence exposure. The data collectors asked for detailed information on acts of violence and their frequency only for life-time experience. Past-year prevalence was inquired about as a summary ("has any of this happened in the past year?"), for physical, sexual, and psychological violence. Past-year prevalence data is often thought to be a more reliable assessment of IPV than events occurring over the lifetime because of less recall bias.<sup>12,15,31</sup> However, pastyear prevalence figures were close in magnitude to lifetime figures in our study, which is interpreted as violence faced by women in Pakistani families being ongoing year by year, with few women being able to obtain a divorce as a way to end the violence. Support for this assumption also comes from recent focus group discussions with women living in the same area (unpublished data). It is also a fact that the women, due to continuous exposure to different forms of violence and abuse, may have difficulties in differentiating recent events exactly from more distant violence experiences.

Table 3 Bivariate associations	between	sociodemographic	factors	and	life 1	time	experience	of physical	sexual,	and p	osychological	ĺ
violence (n = $759$ )												

Variables	Physical viole n = 427	nce	Sexual violeno n = 402	ce	Psychological abuse n = 621		
	n (%) with OR (95% CI) violence experienced		n (%) with violence experienced	OR (95% CI)	n (%) with OR (95% Cl) violence experienced		
Respondents' age (years)							
25–35	235 (52.6)	I	229 (51.2)	I	367 (82.1)	I	
36–60	202 (64.7)	1.65 (1.23–2.23)	185 (59.3)	1.38 (1.03–1.85)	267 (85.6)	1.29 (0.86–1.92)	
Respondents' education			. ,	× ,		· · · ·	
Educated (1–15 years)	205 (51.5)	I	172 (43.2)	I	332 (83.4)	I	
No formal education	232 (64.3)	1.69 (1.27–2.27)	242 (67.0)	2.67 (1.99–3.59)	302 (83.7)	1.02 (0.69–1.49)	
Respondents' occupation	( )	( , , , , , , , , , , , , , , , , , , ,	( )	( )		· · · · · ·	
Skilled workers and professionals	44 (49.9)	I	51 (58.0)	I	74 (83.1)	I	
Unskilled workers	15 (75.0)	0.74 (0.47–1.14)	14 (66.7)	1.20 (0.77–1.88)	19 (950.0)	1.02 (0.57–1.84)	
Housewives	378 (58.2)	1.87 (0.66–5.31)	349 (53.7)	1.73 (0.64-4.65)	541 (83.2)	3.43 (0.45-26.01)	
Husband's age group (years)	( )	( , , , , , , , , , , , , , , , , , , ,	( )	( )			
25–35	153 (49.8)	I	150 (48.9)	I	249 (81.1)	I	
36–90	284 (62.8)	1.70 (1.26–2.28)	264 (58.4)	1.47 (1.09–1.96)	385 (85.2)	1.33 (0.90–1.97)	
Husband's education	( )	( , , , , , , , , , , , , , , , , , , ,	( )	( )	( )	( /	
Education (1–17 years of schooling)	240 (49.6)	I	239 (49.4)	I	387 (80.0)	I	
No formal education	197 (71.6)	2.57 (1.87–3.53)	175 (63.6)	1.79 (1.32–2.43)	247 (89.8)	2.21 (1.41–3.47)	
Husband's occupation		( ,	()				
Skilled workers and professionals	113 (45.9)	1	123 (50.0)	1	177 (72.0)	1	
Unskilled workers and unemployed	324 (63.2)	2.01 (1.48–2.74)	291 (56.7)	1.31 (0.96–1.78)	457 (89.1)	3.18 (2.15–4.71)	
Socioeconomic status	()	( , , , , , , , , , , , , , , , , , , ,	()	(			
Medium and high	290 (56.1)	I	256 (49.5)	1	416 (80.5)	1	
Low	147 (60.7)	1.21 (0.89–1.65)	158 (65.3)	1.92 (1.40–2.63)	218 (90.1)	2.21 (1.37–3.54)	
Number of children	()		()		,	(	
0–4 children	271 (53.0)	1	265 (51.9)	1	419 (82.0)	1	
≥5 children	166 (66.9)	1.79(1.31–2.46)	149 (60.1)	1.39.(1.03–1.90)	215 (86.7)	I.43 (0.93–2.20)	
Number of family members		(	. ()		- ( )	(	
I_4	129 (48.5)	1	126 (47.7)	1	214 (80.5)	1	
5–17	308 (62.5)	I.77 (I.31–2.40)	288 (58.4)	I.56 (I.16–2.11)	420 (85.2)	1.40 (0.96–2.10)	

Abbreviations: OR, odds ratio; CI, confidence intervals.

The fact that community midwives performed the data collection does, however, increase the likelihood of accurate estimates because trust and confidence was established. Another limitation of a cross-sectional study is that it is not possible to establish causal relationships.

The high prevalence figures found for past-year and lifetime exposure of all three forms of violence can be understood in the light of the fact that women's opportunities to end the violence are few. This is due to perpetration of violence being considered as normal male behavior. The subordinate role of women in the society and family allows the violence to continue and keeps divorce rates low, especially among the low- and middle-income groups.<sup>9</sup>

The prevalence of violence in our study was higher than that found in studies conducted in Vietnam, India, and Bangladesh,<sup>15,16,32</sup> but similar to findings from Iran, specifically for sexual and psychological violence.<sup>19</sup> This might be due to the higher level of gender inequality among low- and middle-income women in Pakistan, who generally accept violence within marriage and poor life circumstances, but also due to a high level of trust in community midwives that made disclosures possible.

The multivariate analyses confirmed that low education and low occupational status of the husband were important risk factors for physical violence and perpetration of psychological abuse, but lack of formal education in women was only an important risk factor for sexual violence. In one of the earlier studies from Vietnam, we also noted that male factors (low educational attainment, poverty) were risk factors for partner violence against women.<sup>15</sup> This is in line with what has also been found in other sociological and public health studies.<sup>4,16,33</sup> Striving for job security can create conflict and stress among men of low educational achievement. Rather than using any other

	Physical	Sexual	Psychological	
Respondents' age (years)				
25–35/36–60	1.01 (0.66–1.55)	1.04 (0.68–1.60)	0.74 (0.48-1.13)	
Respondents' education				
Education/no formal education	1.29 (0.93–1.78)	2.27 (1.65–3.12)	_	
Husband's age (years)				
25–35	I	I		
36–90	0.80 (0.53-1.23)	0.82 (0.54–1.26)	-	
Husband's education				
Education	I	I	I	
No formal education	1.87 (1.31–2.67)	1.28 (0.92–1.79)	1.41 (0.86–2.31)	
Husband's occupation				
Skilled workers and professionals	I		I	
Unskilled workers and unemployed	1.84 (1.32–2.58)	_	2.69 (1.77-4.09)	
Number of children				
0–4 children	I	I		
≥5 children	1.26 (0.84–1.88)	0.92 (0.62-1.37)	-	
No of family members				
_4	I	I		
5–17	1.49 (1.03–2.14)	1.49 (1.03-2.15)	_	
Socioeconomic status				
Medium and high		I	I	
Low socioeconomic	_	1.89 (1.35-2.65)	1.93 (1.18–3.15)	

**Table 4** Associations between sociodemographic and psychosocial variables with lifetime physical, sexual, and psychological violence, final models, presented as adjusted odds ratios with 95% confidence intervals (n = 759 married women)

coping strategy, violence towards the wife may be used as a stress reliever.<sup>34</sup>

Low level of education in women as a risk factor for IPV exposure has been explained as being linked to a higher degree of acceptance of traditional gender roles than would be the case with better educated women, and thereby less ability to withstand such violence.<sup>35</sup> The Iranian study similarly identified that illiterate and unemployed women were at a higher risk of violence.<sup>19</sup> These findings emphasize the importance of education for both men and women. However, some studies from other countries<sup>32,34,36,37</sup> have shown that better educated women sometimes face an increased risk of experiencing IPV, but this may be of a temporary nature.

Large family size was also identified as a risk factor for IPV. This can be explained by the fact that when the number of people in a household increases, financial stresses and miscommunication also increase, and this may result in violence towards the wife.<sup>32,38</sup> Another study from Karachi also supports this finding, in that the presence of in-laws was found to be a risk factor for violent perpetration, and not only by the husband.<sup>13</sup>

The woman's age was not identified as a statistically significant risk factor for any of the forms of violence when controlled for in the multivariate analyses. However, there were indications in the bivariate analysis that older age could be a risk factor for physical and sexual violence. This can be interpreted as being due to the fact that violence against women in Pakistan is ongoing year-by-year, and older women will be more exposed over their lifetime.

Socioeconomic status was, in this study, a statistically significant factor for sexual violence and psychological abuse, which is in line with findings from other studies.<sup>15,39</sup> This finding illustrates that within those families that are most vulnerable in terms of low education and low socioeconomic status, violence occurs more commonly. As has already been explained, this may be due to high stress levels, mirroring difficulties in managing everyday life, particularly in men, who are viewed as the main breadwinners.<sup>40</sup>

## Conclusion

The prevalence of all forms of IPV being perpetrated in the lifetime was extremely high in the low- and middleincome strata in Karachi. Married women face this violence repeatedly. Sociodemographic factors were identified as contributing to the occurrence of this type of violence, with those having the least resources being most affected. The institutionalized and serious gender inequality accepted as a normal part of daily life by both women and men has contributed to the present situation. Few women are able to act on this by getting a divorce because a single woman's chances of living a decent life and taking care of her children alone are extremely limited.

This situation requires serious and urgent attention at all levels of societal organization, by policymakers, political stakeholders, and professionals. Policy initiatives are needed, as are legal actions, to criminalize men's violence against women. Basic education needs to be made available for both girls and boys, with special attention placed on female education. Gender equality teaching and training should be included at different levels in the school curriculum. Healthcare staff and social authorities need training on the identification, counseling, management, and prevention of violence against women. Training of nurses and medical doctors in counseling of young couples for the prevention and management of IPV should be part of their basic education. Mass media involvement is necessary to create a debate on such gender discrimination practices and to encourage women's empowerment in society and in the family.

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### Disclosure

The authors declare that they have no competing interests in this work.

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