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Exploring the Determinants of Intimate Partner Violence Against Married Women in Jordan: 2017-2018 JDHS Analysis

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Abstract: This study raised and addressed three questions related to determinants of IPV experiences in Jordan, drawing on a nationwide survey involving a sample size of 6461 married women. Descriptive (percentages) and analytical statistics (logistic regression) were used to analyze the data sets. The findings revealed that the social-ecological perspective is still valid in explaining some factors affecting IPV against Jordanian married women. For instance, the analysis indicated that individual-level factors, such as a wife witnessing domestic violence during her childhood, would increase the likelihood of her experiencing IPV. Also, some family factors appear to be a key factor exposing Jordanian married women to experience IPV, including the societal acceptance that beating wives under some circumstances increases the likelihood of wives being abused by their husbands. Further, being residents of the central region of Jordan and living in poorer households increases the odds of women being abused by their husbands. Based on the findings, families, and government must invest in social and economic transformation agenda to reduce IPV against wives in Jordan, including reorientation at homes, increased safety nets for poorer communities, and educating family members on tolerance and the rejection of domestic violence.

Keywords: Intimate Parmer Violence, Jordan, Married Women, Risk Factors.

1 Introduction

Intimate partner violence (IPV) has of late been considered a social problem threatening the security and well-being of married women across the globe. IPV seems to be a growing problem globally. In 1996, the World Health Assembly adopted a resolution declaring that violence is a public health problem due to the severe consequences of this phenomenon on individuals and communities. IPV is reported to be a complex public issue [1, 2], involving any act that results in physical, psychological, or sexual harm to persons engaged in an intimate relationship [3]. Also, IPV is regarded as a human rights violation that damages the health and well-being of the victims and their families [4]. Compared to men, women are much more affected by IPV [1, 5], with violence against them being the least reported human rights violation in the world [6].

At the global level, it is pointed out that there is relatively little research on risk factors affecting different forms of IPV and/or applying a joint model of multiple forms of violence into a single indicator of IPV occurrence [7]. Furthermore, in Arab countries in general and Jordan in particular, there is a dearth of empirical studies investigating the risk and protective factors associated with IPV. One example of such few studies was a study on the determinants of the prevalence of husband-to-wife violence [8]. In addition, there were two studies, based on national surveys, in Jordan dealing with married women's victimization [9, 10]. The first one identified some differences in violence against women during the last year before the survey - differences which were attributed to demographic and history of violence factors. The second study focused on the effect of woman demographic and financial empowerment factors on woman experiencing IPV. To be sure, there are other several studies on IPV. However, those studies are based either on narrow samples based on specific national groups [11, 12] or on non-representative data in clinical settings [13,14].

Apart from the dearth of studies on IPV and the limited samples of such studies, another limitation with the extant studies on IPV in the Arab and Jordanian contexts is that most of them are based on a limited range of factors affecting IPV against women. There is thus a need to look for more potential factors that are likely to be causally associated with IPV. A recent model, the social ecological model, has of late been advanced. It encompasses a range of micro (i.e., individual

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and family) level and macro (i.e., community and society) level that are likely to be related to the commission of violence against women.

This study aims to explore the risk and protective factors associated with intimate partner violence (IPV) against married women in Jordan. More specifically, our study uses social-ecological model with a view to exploring the micro and macro level factors in the perpetration of violence against women in the Jordanian context. As discussed in the literature section, this model encompasses four levels seen as leading to IPV against women. These levels are individual, family, community, and society. Our study also uses a large nationally representative sample in exploring those factors. Thus, this study is an attempt to fill in the gaps discernable in the extant empirical literature on IPV.

Our study follows the grounded theory tradition in that it adds to the growing body of empirical studies on IPV in different national settings across the globe. Over time, such studies will yield a corpus of knowledge on IPV. In turn, such fund of knowledge may eventually yield a theory or theoretical perspectives on IPV.

2 Literature Review

The social-ecological model provides the underling theoretical framework for this study. A heuristic tool, the model provides probable causes of IPV [15]. It thus posits that the perpetration of violence against women is a function of four different levels of risk factors. Moreover, those levels interact with one another [16]. In the model, the first level is the individual level which refers to the partners' personal history, resources, and individual features. Risk/protective factors that subsume under this level encompass, inter alia, education, employment, age, wife witnessing her father beat her mother, etc. [15, 16].

The second level of analysis is family relationships, which focus on aspects of family life such as role structure and interactional dynamics [15, 16]. Risk factors here may include wife being afraid of husband, marriage duration, wife's ownership of assets, wife decision-making in family affairs, husband's controlling behaviors, etc.

The third level is a macro level; it operates at the community level, which refers broadly to community standard of living [15, 16, 17]. Risk factors at this level may include urban/rural residence, region, a measure of wealth, etc. The final level is the societal level, which indicates the broader set of cultural values and beliefs that influence the other three levels of the social ecological framework [15, 16]. For the purpose of this study, societal acceptance of wife being is the single factor that is relevant to the Jordanian context.

The social ecological model provided framework for numerous empirical studies on IPV. The research results of some of these studies are reviewed below.

2.1 Individual Risk factors

Some previous research indicates that some individual characteristics of the victim and of the aggressor are risk or protective factors associated with IPV. Several studies have found that most wives who experienced, in their childhood, witnessing their fathers beat their mothers are likely to be victimized by their husbands [18, 19, 20]. Studies also report that violence against wives is associated with such risk factors as wife unemployment, lower education, early age of marriage, and young couples [18, 21, 22, 23]. However, it is reported that wife employment and education are protective factors against physical violence perpetrated by husbands. On the other hand, some researchers have found that couples' education [19] and unemployment [24] are silent factors in the perpetration of IPV against women. Further, differences in age, religion, ethnicity, and educational attainment are not found to be statistically significant in victimizing wives [6].

2.2 Family Risk factors

Some studies report that a key family risk factor associated with violence against wives is husband's controlling behavior [8, 18, 25]. However, mixed research findings are reported with respect to other family factors. Thus, it is reported that wives with decision-making autonomy in the household are not likely to be victimized by husbands [19]. It is also reported that wives' participation in household decision-making increases the likelihood of being abused [18, 22, 26]. Other factors, such as family size and the number of children in the household, are found to be positively related to IPV against women [20, 27, 28]. One study reports mixed results regarding the relationship between asset ownership and IPV [29].

2.3 Individual Risk factors

At the community and societal levels, the literature indicates that IPV is associated with patriarchal male dominance and cultural practices based on power imbalance between men and women [30]. In this regard, PV can be influenced by such factors as urban-rural residence, the region in which spouses live, and government policies [30]. It is also argued that IPV is more than a partner issue; it could be family or communal and can spread across generations [31]. Some research reports a positive association between wives' acceptance of IPV and the perpetration of such violence. It also reported that greater prevalence of IPV is associated with poor socioeconomic status and women's lack of decision-making power, making

women more dependent on their male partners in low- and middle-income countries [19, 32, 33]. Similarly, a study found that the association between household poverty and IPV was significant in one of five countries in political and economic transitions [34]. However, one study reports contradictory results about the effect of wealth and poverty on of IPV against women [35].

In light of the social ecological model, our study aims to answer the research questions below. Our dependent variables include physical violence, emotional violence, and social violence perpetrated against married women in Jourdan. Our predictors or independent variables include various risk factors that subsume under the four levels of the social ecological model. These predictor variables are also derived from the empirical literature reviewed above. These predictor variables are specified and measured in the materials and methods section.

Q1: Does the experience of married Jordanian women with physical, emotional, and sexual IPV from their husbands differ according to some variables at the individual level of the social-ecological framework?

Q2: Does the experience of married Jordanian women with physical, emotional, and sexual IPV from their husbands differ according to some variables at the family and relationship levels of the social-ecological framework?

Q3: Does the experience of married Jordanian women with physical, emotional, and sexual IPV from their husbands differ according to some variables at the community and societal levels of the social-ecological framework?

3 Methodologies

3.1 Data Source and Sample

The authors used the data set found in the latest Jordan Demographic and Health Survey (JDHS) which was conducted in 2017-2018. The Jordanian Department of Statistics (JDOS) and JDHS-2019, used a national multistage and stratified random sample. As part of the survey, a sub-sample on domestic violence was administered to all ever-married women aged 15-49 who were usual residents or who had stayed the night before the survey in the households. In total, 6461 women were asked questions about violence against them [36].

3.2 Measurement

3.2.1 Dependent Variables

Our study includes three dependent variables which are included in three logistic regression models. The dependent variables are physical violence, sexual violence, and emotional violence. These three types of violence apply to married women aged 15-49 years who faced these three types of violence during the 12 months preceding the survey. Married women were asked seven questions to find out whether physical violence perpetrated against them by their partners had occurred. These questions include the following: Have you ever been (a) pushed or shaken by your husband, or has he thrown something at you? (b) slapped by your husband? (c) punched or hit with something harmful by your husband? (d) kicked or dragged by your husband? (e) strangled or burnt by your husband? (f) threatened with a knife, gun or other weapon by your husband? Or (g) has your arm been twisted by your husband during the last year?

Married women were also asked the following questions to find out if they were subjected to emotional violence: (a) Have you ever been humiliated by your husband? (b) threatened by your husband? Or (c) insulted by your husband. Similarly, married women were asked the following question to find out whether their husbands perpetrated sexual violence against them: Have you ever been physically forced into unwanted sex by your husband. Yes-answers are coded 1 and 0 otherwise. The seven items under physical violence have a Cronbach Alpha value of 0.81. Similarly, the items under emotional violence have a Cronbach Alpha value of 0.71.

3.2.2 Independent variables

As previously mentioned, this study applies the social ecological model to see if the factors subsuming under this model predict physical, sexual, and emotional victimization of married women in Jordan. As earlier noted, those factors are individual, family, community, and societal. The independent variables of the study subsume under these four factors. These variables are derived from the JDHS survey which is used in this study. Specification and measurement of those independent variables are presented below.

3.2.2.1 Individual Risk Factors

A key demographic risk factor is married woman's age. This is divided into 7 age cohorts (15 -19, 20 -24, 25 -29, 30 -34, 35 -39, 40-44, and 45-49). Each cohort is a mutually exclusive categorical variable with the value 1 if a woman's age is within the cohort and 0 if it is not in the category. Similarly, a woman's educational level is divided into 4 risk factors (No education, primary, secondary, and Higher) with each factor treated as a categorical variable. Other categorical variables are woman working (1 if working and 0 if not working) and woman experienced her father beating her mother

(1 if yes and 0 if no).

Husband's age is divided into 7 cohorts: Less than 25, 26-30, 31-35, 36-40, 41-45, 46-50, and above. Each cohort has 1 and 0 values. Similarly, husband's educational levels are divided into 4 cohorts. Each cohort is a binary variable with 1 and 0 values.

3.2.2.2 Family Relationship Risk Factors

A key risk factor here is husband's controlling behavior, which has five dimensions: husband becoming jealous if his wife talks to other men, husband accuses wife of unfaithfulness, husband does not permit wife to meet female friends, husband tries to limit wife's contact with family, and husband insists on knowing where wife is going. Each dimension is treated as a separate predictor with a view to ascertaining which dimension is a non-random or systematic predictor of violence against wives. Each dimension is a binary predictor variable with the values 1 and 0. Another principal risk factor is woman being afraid of husband, which is evidently a binary variable with the value 1 if she is afraid and 0 if she is not.

A third risk factor is wife's land and house ownerships which are two separate risk factors. Wife's land ownership is divided into three predictors: whether a wife owns land alone, jointly with her husband, and alone and jointly. Wife's house ownership is treated the same way. Each one of these six categories is a predictor with the value of 1 if there is ownership and 0 if there is no ownership.

A fourth risk factor is wife's autonomy in decision making (i.e., decisions on large household purchases, healthcare, and on visits to family and friends). We want to find out if joint decisions on these areas are protective rather than risk factors associated with violence perpetrated against wives by husbands. Hence, each one of these three types of decisions is treated as a categorical predictor which takes the value 1 if the decision is joint and 0 otherwise.

3.2.2.3 Community Risk Factors

As derived from the JDHS survey, community risk factors include central region, northern region, southern region, urban residence, rural residence, and level of poverty/wealth. Each one of the geographically based community-level risk factors is clearly dichotomous predictor variable with 1 and 0 values. In the survey, the level of poverty/wealth is divided into poorest, poorer, middle, richer, and richest. Each one of these levels is treated as a binary predictor with 1 and 0 values.

3.2.2.4 Societal Risk Factors

The only risk factor, derived from the survey, here is wife's acceptance beating by her husband if she goes out without telling husband, neglects children, argues with husband, or burns food. Each one of these categories is treated as a predictor variable which takes the value of 1 a wife accepts beating by her husband and 0 if she does not accept such beating.

4 Results and Discussions

4.1 Descriptive Statistics

Table 1 presents descriptive statistics on the prevalence of the three types of violence perpetrated against married women by their husbands. As can be gleaned from the table, most of the sampled women did not experience emotional, physical, and sexual violence. Clearly, the modal category of the violence inflicted on those women is physical violence; it has the largest counts of violence, though it accounts for only 10.0 percent of the women in the sample. As can be seen from the table, the prevalence of emotional and sexual violence was much more limited. For each one of these violence categories, the prevalence was less than 5 percent. It is observed that the percentage of violence against women has decreased compared to the results of the previous nationwide survey [37]. This result is probably the result of the national policies on mitigating domestic violence.

Tables 2, 3, 4, and 5 present descriptive statistics on individual, family, community, and societal risk factors, respectively. As can be seen in Table 2, more than half of the women sampled completed secondary education. This is also the case with husbands. More than 80 percent of the women were not working, while more than 90 percent of them indicated that they did not experience witnessing their fathers beat their mothers. As shown in Table 3, close to 60 percent of the women sampled pointed out that they were afraid of their husbands. Table 3 also shows that more than 90 percent of the women sampled did not own house or land. Further, most decisions on household purchases, healthcare, and visits were made by husbands. As shown in Table 5, more than 90 percent of the women sampled reported that they did not accept as justifiable beating by their husbands.

Table 1: Prevalence of Physical, Emotional and Sexual Violence

Dimension	Categories	Frequency	Percentage

Emotional	Yes No Total	0276 6185 6461	04.3 95.7 100.0
Physical	Yes No Total	0645 5816 6461	10.0 90.0 100.0
Sexual	Yes No Total	0167 6294 6461	02.6 97.4 100.0

Table 2: Demographic Characteristics Related to Individual Risk Factors

Individual Factors	Category	Frequency	Percentage
Wife's Education	No education primary Secondary Higher Total	0209 0551 3522 2179 6461	03.2 08.5 54.5 33.7 100
Husband's Education	No education Primary Secondary Higher Total	0230 0681 3936 1614 6461	03.6 10.5 60.9 25.0 100
Wife's Age	15-19 20-24 24-29 30-34 35-39 40-44 45-49 Total	171 698 1157 1255 1153 1034 993 6461	02.6 10.8 17.9 19.4 17.8 16.0 15.4 100
Husband's Age	25 and less 26-30 31-35 36-40 41-45 46-50 More than 50 Total	301 812 1139 1219 1092 972 926 6461	4.7 12.6 17.6 18.9 16.9 15.0 14.3 100.0
Wife's Currently Working	No Yes Total	5585 0876 6461	86.4 13.6 100.0
Wife's father ever beat her mother	No Yes Total	5912 0549 6461	91.5 08.5 100.0

Table 3: Demographic Characteristics Related to Family Factors

Family Factors	**Category**	**Frequency**	**Percentage**
Wife afraid of husband	No Yes Total	2675 3786 6461	41.4 58.6 100.0
Wife's house ownership	Owns alone		
	No Yes Total	6123 0338 6461	94.8 05.2 100.0
	Owns Jointly		
	No Yes Total	6286 0175 6461	97.3 02.7 100.0

Wife's house ownership	Owns jointly and alone No Yes Total	6318 0143 6461	97.8 02.2 100.0
Wife's land ownership	Owns alone		
	No Yes Total	6223 0238 6461	96.3 03.7 100.0
	Owns Jointly		
	No Yes Total	6220 0241 6461	96.3 03.7 100.0
Wife's land ownership	Owns jointly and alone No Yes Total	6407 0054 6461	99.2 00.8 100.0
Health Decisions	By Wife	No 5127 Yes 1334	79.4 20.6
	By Husband	No 5870 Yes 0591	90.0 09.1
	By Both	No 1937 Yes 4524	30.0 70.0
Purchase Decisions	By Wife	No 5941 Yes 0520	92.0 08.0
	By Husband	No 5290 Yes 1171	81.9 18.1
	By Both	No 4744 Yes 1717	73.4 26.6
Visit Decisions	By Wife	No 5800 Yes 0661	89.8 10.2
	By Husband	No 5751 Yes 0710	89.0 11.0
	By Both	No 1396 Yes 5065	21.6 78.4
Husband's Controlling Behavior	Husband Jealous	No 1965 Yes 4496	30.4 69.6
	Husband accuses wife of unfaithfulness	No 0449 Yes 6012	06.9 93.1
	Husband does not permit wife to meet female friends	No 0900 Yes 5561	86.1 13.9
	Husband limits wife's contact with family members	No 0626 Yes 5835	09.7 90.3
	Husband insists on knowing where wife is going	No 1859 Yes 4602	71.2 28.8

Table 4: Demographic Characteristics Related to Community Factors

Community factors	Options	Frequency	Percentage
Wealth Index	Poorest Poorer Middle Richer Richest Total	1764 1639 1402 1069 587 6461	23.7 25.4 21.7 16.5 09.1 100.0
Place of Residence	Urban Rural Total	5128 1333 6461	79.4 20.6 100.0
Region	Central North	2283 2240	35.3 34.7

	South Total	1938 6461	30.0 100.0

Table 5: Demographic Characteristics Related to Societal Factors

Societal Factors	Options	Frequency	Percentage
Beating justified if wife goes out without telling husband	No Yes Total	5899 0562 6461	91.3 08.7 100.0
Beating justified if wife neglects children	No Yes Total	5951 0510 6312	92.1 07.9 100.0
Beating justified if wife argues with husband	No Yes Total	5932 0529 6312	91.8 08.2 100.0
Beating justified if wife burns food	No Yes Total	6248 0213 6461	96.7 03.3 100.0

4.2 Logistic Regression

Table 6 presents the results of regressing physical, emotional, and sexual violence on the various factors encompassed in the social ecological model. The odd ratios in the results are adjusted ratios; all factors as predictor variables are included in each of the three models. In other words, each model controls all predictor variables.

At the individual level, three predictor variables have statistically significant relationships with violence perpetrated against married women. A wife witnessing her father beat her mother is a substantive risk factor for her physical, sexual, and emotional victimization perpetrated by her husband. In the case of physical violence, the odds of this factor causing victimization of wives are 3.1 times greater. This result is consistent with the previous research [18, 19, 20]. Also, social learning theory might explain these results, prioritizing the socialization process as a source of learning. Through the socialization process in a social-cultural context, individuals can develop and internalize ideas that can be applied in other contexts [38]. In this case, IPV may be conceived as usual when people are exposed to similar contexts as they grow.

A second factor is wife employment which appears to be a protective factor ($p<0.05$); it is likely to reduce the risk of wives experiencing physical violence committed by their husbands, as similarly reported in another study [39]. A third factor is husband's higher education, which is a protective factor ($p<0.05$) against physical violence perpetrated by husbands against their wives. However, level of education has been reported as a weak or silent factor in some literature [8, 19]. In general, most individual factors except experiencing or witnessing violence against mother are weak or silent predictors of IPV against Jordanian married women [8]. Thus, these findings suggest the need for reorientation and more targeted empowerment programs at the home and community levels. For instance, teaching tolerance and respect for all humans in line with Islamic principles, regardless of gender, ethnicity, and economic power, should be encouraged [40]. Also, there should be a rethink about employment opportunities for more women to enhance their economic and social capital with the potential to protect them against IPV in the research context. This investment is essential as unemployment is reported to be a contributory factor to IPV against women [24].

Table 6: Logistic Regression Results

Physical Violence Model				Sexual Violence Model				Emotional Violence Model		
Individual Factors										
Factor	*Coefficient*	*P-Value*	*OR* *95 % CI*	*Coefficient*	*P-Value*	*OR*	*95% CI*	Coefficient	P-Value	OR *95% CI*
Wife Without Education	-.17	.59	.84 (.46,16)	-.21	.71	.81	(.27, 2.4)	.27	.52	1.3 (.58, 2.9)
Wife Primary Education	-.003	.99	.99 (.68, 1.5)	-.076	.82	.93	(.48, 1.8)	.34	.21	1.4 (.82, 2.4)
Wife Secondary Education	.13	.33	1.1 (.88,1.5)	-.095	.67	.91	(.59, 1.4)	.19	.30	1.2 (.84, 1.8)
Husband Primary	-.27.	.30	.76	.29	.61	1.3	(.44,	-.12	.74	.89

(.46,1.3) Education				4.0)				(.44, 1.8)		
Husband (.42,1.1) Secondary Education	-.39	.10	.67	.61 5.1)	.24	1.8	(.66,	-.25 (.41, 1.5)	.44	.78
Husband Higher (.31, .88) Education	-.66	.01	.52	.15 (.39,3.5)		.78	1.2	-.66 (.25, 1.1)	.07	.52
Wife Age 15-19 (.6, 2.8)	- .26	.50	1.3	-.24 3.9)	.79	.81	(1.7,	.14 (.32, 4.2)	.83	1.1
Wife Age 20-24 (.49, 1.6)	-.13	.66	.88	-.19 2.3)	.71	.82	(.29,	.29 (.58, 3.1)	.49	1.3
Wife Age 25-29 (.76, 2.0)	.22	.39	1.2	1.0 2.6)	.82	1.1	(.47,	.54 (.85, 3.4)	.13	1.7
Wife Age 30-34 (.82, 2.0)	.25	.27	1.3	.11 2.4)	.78	1.1	(.51,	.47 (.86, 3.0)	.14	1.6
Wife Age 35-39 (.79, 1.8)	.17	.40	1.2	.18 2.4)	.61	1.2	(.60,	.23 (.72, 2.2)	.42	1.3
Wife Age 40-44 (.84,1.8)	.19	.29	1.2	27 2.4)	.39	1.3	(.71,	-.01 (.59, 1.7)	.97	.99
Husband Age (.76, 3.0) Less than 25	.41	.24	1.5	-.63 2.0)	.35	.53	(1.4,	-.84 (.15, 1.2)	.12	.43
Husband Age (.61,1.8) 26-30	.06	.83	1.1	.12 2.8)	.81	1.1	(.44,	-.44 (.29, 1.4)	.28	.65
Husband Age (.83,2.2) 31-35	. 29	.23	1.3	-.16 1.8)	.70	.85	(.42,	-.53 (.29, 1.2)	.13	.59
Husband Age (.72,1.8) 36-40	.12	.59	1.1	-.13 1.5)	.73	.88	(.34,	-.19 (.45, 1.5)	.54	.83
Husband Age (.69, 1.5) 41-45	.04	.86	1.0	-.33 1.4)	.33	.71	(.36,	-.16 (.48, 1.5)	.58	.85
Husband Age (.82, 1.7) 46-50	.17	.36	1.2	-.19 1.5)	.53	.83	(.46,	.04 (.63, 1.7)	.87	1.0
Wife (.49,.98) Working	-.36	.04	.69	.06 3.3)	.81	1.1	(1.4,	.08 (.68, 1.7)	.74	1.1
Wife's Father (2.4,4.0) Beat Mother	1.14	.001	3.1	.79 3.3)	.000	2.2	(1.4,	.79	.000	2.2 (1.6, 3.1)
Family (Relationship) Factors										
Factor 95 % CI	*Coefficient*	*P-Value*	*OR*	*Coefficient % CI*	*P-Value*	*OR*	*95*	*Coefficient 95 % CI*	*P-Value*	*OR*
Wife Afraid (1.9,3.0) of Husband	.86	.001	2.4	1.1 5.0)	.000	3.1	(1.9,	.37 (1.0, 2.0)	.03	1.4
Husband Control Husband (.65,1.1) Jealous Husband (1.8,3.1)	-.19	.13	.83	.17 1.9)	.48	1.2	(.74,	-.06 (.65, 1.4)	.74	.94
	.85	.000	2.3	.64 2.9)	.004	1.9	(1.2,	.950 (1.8, 3.6)	.000	2.6

Accuses Wife Unfaithfulness										
Husband (1.5,2.5)	.65	.000	1.9	.30 2.1)	.18	1.3	(.87,	.67 (1.4, 2.7)	.000	1.9
Denying Wife to Meet Female Friends										
Husband (1.9, 3.2)	.89	.000	2.5	.69 3.1)	.003	1.9	(1.3,	1.1 (2.2, 4.5)	.000	3.2
Limiting Wife Contact With Family										
Husband (1.9,2.9)	.86	.000	2.4	.84 3.4)	.000	2.3	(1.5,	.98 (1.9, 3.7)	.000	2.7
Insisting Where Wife Going										
Joint Decisions on				.17	.46	1.2	(.75,	-.51	.006	.60
Purchases (.58, .98)	-.28	. 03	.75	.19) -.67	.005	.51	(.32,	(.41, .86) -.13	.52	.88
Visits (.67,1.2)	-.12	.41	.89	.81) -.08	.69	.92	(.61,	(.60, .1.3) . 17	.34	1.20
Health (.72, 1.2)	-.09	.45	.91	1.4)				(.84, 1.7)		
Land Ownership										
Wife Alone (.44,1.6)	-.17	.61	.84	.03 2.5)	.95	1.0	(.42,	-.14 (.35, 2.1)	.76	.87
Jointly (.79,2.3)	.04	.25	1.4	.23 2.9)	.60	1.2	(.53,	.53 (.84, 3.4)	.14	1.70
Wife alone And Jointly	1.1	.006	3.0	1.1 10.9)	.07	3.1	(.88,	.74 (.76, 5.8)	.15	2.1
House Ownership										
Wife Alone (.60,1.5)	-.06	.79	. 94	.38 2.7)	.22	1.5	(.79,	.08 1.9)	.79	.87 (.61,
Jointly (.58,1.9)	.04	.90	1.0	.34 3.5)	.47	1.4	(.56,	.09 2.4)	.82	1.10 (.49,
Wife alone (.82, 2.6) and Jointly	.38	.20	1.5	-.06 2.8)	.92	.94	(.31,	1.0 5.5)	.006	2.7 (1.3,
Community Factors										
Factor	*Coefficient*	*P-Value*	*OR*	*Coefficient*	*P-Value*	*OR*	*95*	*Coefficient*	*P-Value*	*OR*
95 % CI				*% CI*				*95 % CI*		
Household Wealth Status										
Poorest (.82,1.9)	.22	.31	1.2	-.15 1.7)	.67	.86	(.44,	.60 (.93, 3.6)	.08	1.8
Poorer (.91, 2.1)	.32	.13	1.4	-.35 1.4)	.31	.70	(.35,	.77 (1.1, 4.2)	.02	2.1
Middle (.95, 2.2)	.37	.09	1.4	-.06 1.8)	.86	.94	(.48,	.59 (.90, 3.6)	.09	1.8
Richer (.82, 1.9)	.23	.29	1.3	-.38 1.4)	.30	.69	(.34,	.66 (.98, 3.9)	.05	1.9
Place of Residence				-.65	.002	.52	(.35,	-.17	.35	.85
Urban (.96, 1.6)	.22	.09	1.2	.79)				(.59, 1.2)		
Region				1.5	.000	4.5	(2.7,	.89	.000	2.4
Central (1.9, 3.2)	.92	.000	2.5	7.5) 1.1	.000	3.0	(1.7,	(1.7, 3.5) .57	.005	1.7
Northern	.01	.93	1.0	5.2)				(1.2, 2.6)		

(.77, 1.3)											
Societal Factors											
Factor	*Coefficient*	*P-Value*	*OR*	*95 % CI*	*Coefficient*	*P-Value*	*OR*	*95 % CI*	*Coefficient*	*P-Value*	*OR*	*95 % CI*
Beating Justified if Wife Neglects Children	.39	.03	1.5	(1.0, 2.1)	.31	.25	1.4	(.79, 2.3)	.38	.13	1.4	(.89, 2.4)
Argues	.08	.59	1.1	(.8, 1.5)	.06	.85	1.1	(.58, 1.9)	-.15	.53	0.8	(.55, 1.4)
Burns Food	1.9	.51	1.2	(.73, 1.9)	.13	.62	1.1	(.67, 1.9)	.52	.11	1.7	(.89, 3.1)
Goes out	1.9	.22	1.2	(.89, 1.7)	.28	.48	1.3	(.60, 2.8)	-.21	.38	.81	(.51, 1.3)

At the family relationship level, some family factors are statistically significant predictors of IPV against wives. An important factor here is the wife being afraid of her husband. This factor increases by 2.4 times the odds of physical aggression ($p<0.001$) against wives. This might be explained by micro factors related to the aggressive personality of the husband in the Jordanian patriarchal society. Similarly, all four husband's controlling behaviors (i.e., husband accuses wife of unfaithfulness, husband does not permit wife to meet female friends, husband tries to limit the wife's contact with family, and husband insists on knowing where a wife is going) are statistically significant ($p<0.001$) predictors of physical violence by husbands against their wives. The odds of physical aggression against an unfaithful wife are 2.3 times greater. These dimensions also have statistically significant ($p<0.001$) associations with husbands' emotional and sexual violence against their wives. The only dimension of the husband's controlling behavior that does not exhibit a statistically significant relationship with any of the three forms of violence is jealousy if his wife talks to other men. Men's controlling behavior toward their wives exemplifies patriarchal culture in this research context [30]. So, the findings reinforce the urgent need for rethinking the socialization process with respect for all genders as a way to strengthen justice and respect for human dignity in society [38]. Doing this increases women's status and gets them involved; autonomy in decision-making is reported to reduce IPV among women [19].

Regarding decisions on household purchases, visits, and healthcare, we wanted to find out whether joint decisions protect wives against violence by their husbands; our expectation is that such decisions are likely to reduce violence against female partners. The regression coefficients show that such decisions are likely to reduce violence against wives. However, only joint purchases are statistically significant predictors of physical violence ($p<0.05$) and emotional violence($p<0.01$) against wives. Joint visits are also a statistically significant($p<0.01$) protective factor against the sexual victimization of wives. This result supports the social change witnessed by the Jordanian family in gender roles. On the other hand, asset (i.e., house and land) ownership exhibits an interesting relationship with husbands' aggression against their wives. As a risk factor, wife's ownership of land alone and jointly with her husband is to likely to lead to physical aggression against her ($p<0.01$). Similarly, wife's house ownership alone and jointly with her husband is likely to expose her to emotional victimization ($p<0.01$). This finding might be explained as an indicator of the coexistence of traditional values with modern ones in Jordanian society, and it is at variance with a study showing mixed results regarding asset ownership and IPV [29]. However, efforts to empower women along with their male counterparts in asset ownership must continue to be supported at family, societal, and governmental levels.

At the Community level, some factors related to residence, region, and household wealth status have statistically significant associations with various forms of violence husbands commit against their wives. Not surprisingly, it is contended that family and community could trigger IPV in addition to partners [32]. As the findings show, being resident in the Central Region exposes wives to all forms of violence ($p<0.001$) perpetrated by their husbands. The odds of sexual aggression against a wife resident in this region are 4.5 times greater. Similarly, a wife resident in the Northern Region is likely to suffer from sexual violence ($p<0.001$) and emotional violence ($p<0.01$) committed by their husbands. In contrast, household wealth status makes no difference in the perpetration of violence against married women. The only exception is that in poorer households, husbands are likely to commit emotional violence ($P<0.05$) against their partners. Urban residence appears to be a protective factor against the sexual victimization of wives ($p<0.01$). At the societal level, the single risk factor leading to violence against married women is the societal acceptance of wife-beating under any one of four circumstances. As shown in the table above, the only circumstance that correlates statistically with violence against wives is when they neglect their children. This dimension predicts physical violence ($p<0.05$) committed by husbands against their wives. This result can be explained by the fact that some of the traditional roles of wives, such as taking care of children and raising them, are still important in Jordanian society.

The findings at the community and societal levels are consistent with a study indicating power imbalance due to patriarchal and traditional practices promoting male dominance [30]. Further, these findings reinforce a study conducted

in five countries showing a correlation between household poverty in some neighborhoods and IPV against women [34]. Contrary to studies indicating positive attitudes towards accepting IPV for some reasons [32, 33], this study suggests the need for more sensitization drive to reduce IPV in Jordan. The findings also reecho the need for poverty eradication or alleviation policies and actions by wealthy individuals, organizations, and governments to support men and women in neighborhoods with economic challenges.

5 Conclusions

The research findings of this study lend some support to the social-ecological framework in explaining some factors affecting IPV against wives by their husbands at all levels: individual, family, community, and society. At the individual level, the most substantial factor affecting IPV against Jordanian married women is the wife witnessing domestic violence during her childhood. However, the influence of other individual factors is either weak or silent.

Some factors in family relationships appear to be the key factors causing Jordanian married women to experience IPV. This is particularly the case with the husband's controlling behavior. This factor seems to cause all forms of violence perpetrated by husbands against their wives. Another case in point is the wife being afraid of her husband. This factor predisposes husbands to commit aggression against their wives. Women's economic empowerment is still not a protective factor for them in the issue of IPV. Joint husband-wife decisions are likely protective factors, as indicated by the negative signs of the regression coefficients, from physical and emotional violence (Joint decisions on purchases) and sexual violence (Joint decisions on visits) against wives.

Thus, women's social empowerment in decision-making in the family decreases the risk of IPV against married women. Furthermore, the patriarchal factor, mainly manifest in the husband's controlling behaviors, is still valid for domestic violence wives in the Jordanian context. Finally, being a resident of the central region of Jordan, living in poorer households, and accepting beating women under some circumstances increases the risk of married women experiencing IPV. It is worth noting that tribal and patriarchal traditions are particularly strong in the central and northern regions. One such tradition is honor killing, the ultimate violence against women.

The overall conclusion is that IPV is probably attributable to the tribal and patriarchal nature of Jordanian society. Despite the country's modernity, its family relationships are influenced mainly by tribal traditions and patriarchy. The fact that the impact of these two factors may continue to cause IPV against wives, women empowerment initiatives become necessary. Such empowerment must be prioritized at the individual, family, community, and government levels. For instance, families must rethink the socialization process where women beating and disenfranchisement in decision-making are normalized to promote social justice. The socialization process may also include educating children on tolerance and rejecting violence [41, 42]. Affluent communities and governments must invest in poverty eradication programs to empower women economically, elevating their socioeconomic status and allowing them to own assets and participate in decision-making. The conclusion of this steady also points to the need for more evaluative research on the effectiveness of women's empowerment programs in Jordan and their impact on attitudes, beliefs, and behaviors.

6 Limitations and Future Research

This study has two limitations. The first one is the fact that it is a cross-sectional study which does not account for changes that happen over time. Future research needs to combine both cross-sectional and longitudinal research designs to account for changes in the variables of interest that may occur over time. Another limitation is that the dataset used in the study does not include some factors that come under the social ecological framework. Such factors include, *inter alia*, microlevel characteristics such as individual and behavioral characteristics, spousal relationships, psychological profile of male perpetrators of violence, abusive women, spouses' beliefs regarding gender roles, etc. In this regard, we believe that religion is an important factor that may influence IPV. However, the dataset we used for the study does not include information on this factor. Thus, future research needs to explore that influence of this factor on IPV.

Future research on IPV may benefit from a grounded theory approach. Case studies, such as the one on Jordan, may yield hitherto unknown important risk and protective factors against IPV. Such factors can then be incorporated into a comprehensive social ecological framework which may over time lead to the accumulation of a corpus of knowledge on IPV. In turn, such fund of knowledge may eventually lead to some theory of IPV. Following a grounded theory approach, empirical studies in various national settings are a sine qua non for the accumulation of empirical knowledge or generalizations that may ultimately yield a theory of IPV. Its limitations notwithstanding, our study represents some contribution to the accumulation of such knowledge.

Conflicts of Interest Statement

The authors certify that they have NO affiliations with or involvement in any organization or entity with any financial

interest (such as honoraria; educational grants; participation in speakers' bureaus; membership, employment, consultancies, stock ownership, or other equity interest; and expert testimony or patent-licensing arrangements), or non-financial interest (such as personal or professional relationships, affiliations, knowledge or beliefs) in the subject matter or materials discussed in this manuscript.

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