

Intimate partner violence in the Kingdom of Bahrain: Prevalence, associated factors and WAST screening in primary health centres

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ABSTRACT

Background and Objectives: Women can experience physical abuse, mental, sexual abuse, or even controlling behavior throughout their partnership lifecycle, which must be prevented and curtailed at the early stages. Therefore, this study explores intimate partner violence (IPV) prevalence among Bahraini women, predictors of IPV, and reliability of the Women Abuse Screening Tool (WAST) questionnaire in IPV against women. **Methods:** The current prospective cross-sectional study included 810 Bahraini women meeting the inclusion criteria, who were asked to share any IPV experience witnessed during their marriage. A questionnaire comprising of 25 questions, including those of WAST-short and WAST-long, was used. The reliability of the screening tools was determined using Cronbach's alpha test. **Results:** The prevalence of IPV among Bahraini was found to be 71.11%. During pregnancy, husbands' violent behavior towards family members, relatives or friends; escalation of violence; substance abuse; general antisocial behavior; criminality and mental health issues were significantly associated with IPV (P < 0.001). Relationship problems with the husband, individual behavior of women supporting violence, and history of violence from other family members were significantly associated with abuse (P < 0.05). WAST-short and WAST-long were 0.82, 0.76, and 0.84, respectively. **Conclusion:** Determination of IPV is an outcome of the victim and abuser's psychosocial behaviors, and WAST-short must be complemented with WAST-long for accurate findings. Concerted efforts towards anger management and rehabilitation of the victim and abuser are imperative to end the IPV cycle.

Keywords: Anger management therapy, intimate partner violence, mental health, WAST

Introduction

Intimate partner violence (IPV) is characterized by unpropitious behavior directed at a partner in an intimate relationship causing them physical, sexual, emotional or other psychological forms of suffering.^[1,2] World Health Organization (WHO)

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reports that every one among three women worldwide has been a victim of IPV or experienced non-partner sexual violence, however, only 2.5%-15% report such instances.^[3,4] These figures emphasize the silent and preventable crisis faced by millions daily but is often overlooked as a sensitive topic.^[5] In the Middle East, the prevalence of IPV against women ranges from 42 to 58% of the population. Moreover, IPV is present across all socioeconomic levels, diverse ethnic and religious groups.^[6,7]

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IPV's annual financial burden has been estimated to be as high as 1.7-10 billion dollars in the US.^[8] However, societal repercussions are more damaging, with around 39% of all female homicides arising from extreme forms of IPV. Adverse health consequences on women include anxiety, depression, insomnia, self-harm, abortion, unwanted pregnancy and deep emotional scars.^[9-11] IPV eventually comes to the fore during screening sessions conducted by primary care units, physician suspicion of IPV, or during accidental emergencies, or consultations with a psychiatrist.^[6]

However, physicians' accurate IPV detection is contingent on the suitability and victims' perceived ease of compliance with the IPV screening tool used. For a screening method to be effective, it must facilitate the early identification of IPV.^[2] Although there are several IPV screening instruments such as hit, insult, threatened and scream (HITS); slapped, threatened and throw (STAT); partner violence screening (PVS), conflict tactics scale (CTS), composite abuse scale (CAS); and the Abuse Assessment Screen (AAS), a gold standard IPV screening tool has not been established.^[11] The WAST has demonstrated high sensitivity in detecting IPV in western countries and high specificity in South Africa.^[2] Currently, there is an absence of a screening tool as a gold standard for detecting IPV in primary health care centers (PHC) due to the complex nature of IPV and the reluctance of victims to confide in others.^[2]

There persists a literary vacuum on pertinent IPV detection tools employed by PHC physicians while ensuring patient convenience and confidentiality. The current study was envisioned to determine the prevalence of IPV among women in the Kingdom of Bahrain, delineating the socio-demographic and psychometric factors associated with abuse and the reliability of WAST-short in comparison to WAST-long and a full-length questionnaire as an IPV screening tool.

Materials and Methods

Study design

The current cross-sectional study on spousal abuse faced by women visiting 27 PHCs in the Kingdom of Bahrain was conducted from September to October 2020. Currently married, widowed or divorced women, above the age of 18 years, in good physical condition, with the ability to read Arabic or English language, and willing to spend 10-15 min for the study were included in the study. However, those not willing or unable to spend time or provide consent were excluded. Ethical approval from the ethics and research committee in primary care and patients' voluntary informed consent was obtained before the study's initiation in accordance to the Helsinki Declaration. Participants assured confidentiality of their data, and women facing IPV were offered a brief intervention by the family physician, which entailed counselling, information on IPV services, developing a safety plan, and referring the women to appropriate service providers if requested. Ethics committee approval was obtained on 18th August 2019; F.H.10/2017.

Sample size

Based on an IPV prevalence of 42-49%, a sample size with a precision of 0.3 and a confidence level higher than 95% was targeted.^[12,13] Therefore, to attain a sample size with a confidence interval of 99% and adjusting for non-responders, 810 women were enrolled in the study using systematic random sampling.

Data collection

A pilot study was conducted among 20 participants selected randomly from different primary health centers in Bahrain to evaluate that the validity of the questionnaire was modified accordingly. The primary screening questionnaire with 25 fields was used in the study. This full questionnaire comprises two versions of the WAST, namely WAST-short and WAST-long, to detect IPV among participants. The first two questions of the questionnaire were of WAST-short about the intensity of tension and difficulty in their current relationship; the next eight questions were of WAST-long, followed by questions on the abusive history of husbands, relationship problems, individual attitudes of the woman supporting abuse, history of abusive behavior from family, and presence of support systems. Participants who answered 'a lot of tension' and 'great difficulty' to the WAST-short were regarded as a positive result for IPV (abused). Results of WAST-short were subsequently corroborated with WAST-long having eight questions to ascertain the sensitivity and specificity of WAST-short. Possible scores for WAST-long ranged from 8 to 24, with 13 as the cut-off score.^[2] Scoring was based on a 3-point Likert type scale with 3 indicating a higher frequency of IPV and 1 indicating IPV of lower intensity or frequency. Socio-demographic data of study participants was also noted by the trusted health care provider administering the questionnaire.

Data analysis

Data were analyzed using statistical software R version 4.0.3 and Microsoft Excel. Categorical variables were presented as frequency tables. Chi-square test was used to determine the association between different demographic variables and risk factors with spouse women abuse. *P* value ≤ 0.05 was considered the threshold of statistical significance. The reliability of the questionnaires was examined using Cronbach's alpha test.

Results

The mean age of the 810 Bahraini women included in the study was 30 years. Married women constituted the majority, with marriage duration ranging from less than 5 years to over 20 years. Age at the time of marriage was above 30 years for 61.1% of the women. Most women were found to have two to four children. The cohort was predominantly composed of university graduates (51.4%). However, the majority of the husbands possessed a secondary school qualification (62.8%). Among the study population, 49.2% had no stable income source, while 64.4% of the husbands earned 300-900 Bahraini dinars (BD) per month. Among the cohort, 502 (61.9%) women resided with the husband. Nearly half of the women, i.e., 412 individuals (50.8%) were housewives. IPV was prevalent in 71.11% of the studied population as per WAST-long scores.

Chi-square results revealed a significant association between demographic characteristics such as age, marital status, age at the time of marriage, number of children, education level of wife, wife income, husband income and residency (P < 0.05). Tables 1 and 2 demonstrate IPV's distribution pattern across multiple demographic and socioeconomic variables, respectively.

A preponderance of women in the age group of 35-50 years and who got married after the age of 30 and have been married for longer than 11 years, have two or more children, with a secondary level of education, having no stable source of income, with husbands earning 300-900 BD and residing with their husbands was observed among the abused cohort. There was no significant association of variables such as duration of marriage, education level of husband and wife's occupation with IPV.

In reference to the history of abusive behavior exhibited by husbands during pregnancy, violent behavior towards family members, abusive behavior towards his relatives or friends,

Table 1: Association of demographic characteristics with intimate partner violence					
Demographic	Ab	Abuse			
Characteristics	No	Yes	-		
Age (years)					
<25	62 (10.76%)	22 (9.4%)	0.0116^{C*}		
25-34	249 (43.23%)	76 (32.48%)			
35-50	197 (34.2%)	95 (40.6%)			
>50	68 (11.81%)	41 (17.52%)			
Marital status					
Divorced	10 (1.74%)	26 (11.11%)	$< 0.001^{MC*}$		
Married	549 (95.31%)	185 (79.06%)			
Separated	1 (0.17%)	11 (4.7%)			
Widow	16 (2.78%)	12 (5.13%)			
Age at Marriage (years)					
<20	186 (32.29%)	98 (41.88%)	0.0165 ^C *		
20-30	20 (3.47%)	11 (4.7%)			
>30	370 (64.24%)	125 (53.42%)			
Duration of marriage (years)					
<5	141 (24.48%)	41 (17.52%)	0.1019 ^c		
5-10	148 (25.69%)	56 (23.93%)			
11-20	155 (26.91%)	74 (31.62%)			
>20	132 (22.92%)	63 (26.92%)			
Number of children					
Nil	99 (17.19%)	17 (7.26%)	0.0019^{C*}		
1	98 (17.01%)	38 (16.24%)			
2-3	204 (35.42%)	90 (38.46%)			
≥ 4	175 (30.38%)	89 (38.03%)			
Occupation					
Employee	214 (37.15%)	76 (32.48%)	0.2392 ^c		
Private Job	21 (3.65%)	15 (6.41%)			
Retired	49 (8.51%)	23 (9.83%)			

C - Chi-square test, MC - Chi-square test with Monte Carlo simulation, *indicates statistical significance.

escalation of violence, substance abuse, general antisocial behavior, criminality and mental health issues showed a highly significant association with the occurrence of IPV (P < 0.001) as presented in Table 3.

Regarding the women's experience of having relationship problems with husbands, individual attitudes supporting violence, a highly significant association with IPV, were noted (P < 0.001). A history of violent behavior from family members was also significantly associated with abuse (P < 0.05).

Chi-square test results revealed a significant association of different support systems such as immediate family history of parents, siblings, children, relatives and friends of a woman with abuse (P < 0.001). However, there was support from the physician, and the non-governmental organization was not significantly associated with IPV.

The WAST-short accurately identified 44 of the 190 participants with a positive WAST-long score for abuse. Therefore, WAST-short demonstrated sensitivity of 100% (99.36-100%), specificity of 18.8% (14.01-24.41%), positive predictive value of 75.20% (71.98-78.22%) and a negative predictive value of 100% (91.96-100%). The screening tools' reliability was scrutinized; Cronbach's alpha coefficient of reliability for the full questionnaire, WAST-short, and WAST-long were 0.82, 0.76 and 0.84, respectively. This demonstrates that the questionnaire and WAST-long items had a good consistency, while WAST-short had relatively acceptable internal consistency.

Discussion

IPV perpetuates a vicious cycle of hurt with an intergenerational impact and constitutes a major public health concern requiring greater attention and apt interventions.^[2] The current study sheds light on the current IPV scenario against women in the Kingdom of Bahrain, potential screening factors and the reliability of screening tools used by PHCs.

An alarmingly high rate of abuse against Bahraini women was observed, with IPV prevalence in the study cohort amounting to 71.11%. This finding is synchronous with previous population surveys conducted across 10 countries in 2011, which noted an IPV prevalence range of 15-71%.^[14] Occurrence of IPV arises from a complex interplay of socioeconomic, psychosocial and cultural factors conditioned into an individual's psyche over time. Hence, drastic variations in the prevalence of IPV are observed across different geographic regions.^[14] Literature suggests a higher prevalence of IPV in societies where a women's status is still undergoing a transition.^[2]

In this study, several socioeconomic and psychosocial factors that influence the occurrence of IPV were delineated. Among the socioeconomic parameters, age, marital status, age at the time of marriage, number of children, education of wife and her income, husband income and residency were significantly

with intimate partner violence						
Socioeconomic	Ab	use	Р			
Characteristics	No	Yes				
Level of Education of Wife						
Uneducated	8 (1.39%)	12 (5.13%)	0.0015 ^C *			
Secondary school or less	238 (41.32%)	106 (45.3%)				
University	313 (54.34%)	104 (44.44%)				
Higher studies	17 (2.95%)	12 (5.13%)				
Level of Education of Husband						
Uneducated	9 (1.56%)	7 (2.99%)	0.1149 ^{MC}			
Secondary school or less	351 (60.94%)	158 (67.52%)				
University	190 (32.99%)	59 (25.21%)				
Higher studies	26 (4.51%)	10 (4.27%)				
Income of Wife						
No Stable income	281 (48.78%)	118 (50.43%)	0.0333 ^C *			
<300 BD	41 (7.12%)	29 (12.39%)				
300 BD -900 BD	208 (36.11%)	66 (28.21%)				
>900 BD	46 (7.99%)	21 (8.97%)				
Income of Husband	. ,	. ,				
No stable income	41 (7.12%)	32 (13.68%)	0.0043 ^C *			
<300 BD	61 (10.59%)	33 (14.1%)				
300 BD -900 BD	390 (67.71%)	132 (56.41%)				
>900 BD	84 (14.58%)	37 (15.81%)				
Residency						
Alone	12 (2.08%)	14 (5.98%)	< 0.001 C*			
With husband	378 (65.63%)	124 (52.99%)				
With husband's family	156 (27.08%)	56 (23.93%)				
With Spouse's family	30 (5.21%)	40 (17.09%)				
Occupation	, ,					
Housewife	292 (50.69%)	120 (51.28%)	0.2392 ^c			
Employee	214 (37.15%)	76 (32.48%)				
Private Job	21 (3.65%)	15 (6.41%)				
Retired	49 (8.51%)	23 (9.83%)				

 Table 2: Association of socioeconomic characteristics

• 1

BD - Bahraini dinar, C - Chi-square test, MC - Chi-square test with Monte Carlo simulation, *indicates statistical significance

associated with abuse. Previous studies have reported that age is not significantly linked to IPV in the case of South Africa and Saudi Arabia. However, in Bahrain's scenario, IPV peaked around 25-34 years before declining. This may be due to increased domestic responsibilities, exacerbated stress, and instability in relations during the first 10 years of marriage. Mukamana et al. found that women of reproductive age are at a high and increasing risk of physical and emotional violence, echoing the present study's observations.^[15] Cunradi et al., as well as Alzahrani et al., found that the income of husbands was found to be a relatively strong predictor of IPV in the United States and Saudi Arabia, respectively.^[16,17] A study by Kreager et al. inferred that educational and financial resources empower women by encouraging divorce in abusive marriages.^[18] Number of children as a factor for abuse is most often neglected. Barnawai et al. noted abused women to have fewer children, but in our study, increase in the number of children was significantly associated with IPV.^[19] Findings of Bohlaiga et al. denoting an increased prevalence of IPV with expansion in family size further reinforces our observation on the nexus between the number of children and abuse.^[20] This could be attributed to

women's poor sexual autonomy in marriages and the consequent stress of raising multiple children.

The findings of the current study demonstrate that the abuser's history of abusive and violent behavior during pregnancy towards wife, family members, his relatives or friends, escalation of violence, substance abuse, general antisocial behavior, criminality and mental health issues are of great salience in creating multi-sectorial targeted interventions for IPV. Naghizadeh et al. have reported a significantly high prevalence of domestic abuse in Tabriz during the COVID-19 pandemic and poor quality of life effectuated by it.^[21] Hawcroft et al. conducted a systematic review and meta-analysis on the prevalence and outcomes of domestic abuse inferred that husbands are the most frequent abusers in the Arab region.^[9] In congruence to these findings, Alzahrani et al. also reported a highly significant link between husbands' past exposure to violence and substance abuse.^[16] A systematic review by Calpaldi et al. noted that financial stress increased IPV prevalence, work-related stress was directly proportional to alcohol abuse.^[10] The significant association observed between IPV and antisocial behavior can be related to the negative emotionality like anxiety, hostility and anger harbored by an individual.^[22] The study findings were supported by Ehrensaft et al.'s investigations in which abusive husbands exhibited personality deviance and disinhibitory psychopathology.^[23] Few investigations followed the current study, indicating antisocial behavior and psychological disorders among young adults exhibited significant IPV.^[24]

Despite high prevalence rates of IPV, in the face of myriad obstacles such as cultural or traditional, fear of losing children's custody, fear of revenge, lack of family support, lack of economic support, or fear of household dysfunction, many cases go unreported.^[12] For example, there is no significant association between abuse and the support received from the physician and non-governmental organization (P > 0.001), suggesting resistance towards seeking institutional help in the current study. Hence, a patient-friendly screening tool with desirable sensitivity and specificity becomes imperative for tackling IPV cases. In this study, WAST-short's reliability, a two-question screening tool, was contrasted with WAST-long and a full-length questionnaire. Chances of observing false positives were quite low as WAST-short demonstrated a sensitivity of 100%; however, with a specificity of 18.8%, the scope for false negatives was glaringly large. The high negative prediction value that a high probability of those screening negative will end up with a high WAST-long score, which is evident in IPV because the WAST questionnaire was originally developed based on IPV data in western societies.^[2] IPV stemming from factors unique to a particular culture or region may be omitted. In congruence with our findings, Halpern et al. found that WAST-short could detect IPV in only 52% of women.^[25] The inability of screening tools to identify proscribed abusive behaviors diminishes the chances of women's grievances being taken seriously and avail help from authorities, family members and peers.^[26]

Table 3: Association of husband's abusive history with intimate partner violence				
Husband's History	Occurrent	ce of Abuse	Р	
	No	Yes		
Violent behavior during your pregnancy				
Never	547 (94.97%)	140 (59.83%)	< 0.001 C*	
Often	6 (1.04%)	28 (11.97%)		
Sometimes	23 (3.99%)	66 (28.21%)		
Violent behavior towards family members				
Never	544 (94.44%)	133 (56.84%)	< 0.001 C*	
Often	0	31 (13.25%)		
Sometimes	32 (5.56%)	70 (29.91%)		
Abusive behavior towards his relatives or friends				
Never	556 (96.53%)	160 (68.38%)	< 0.001 ^C *	
Often	2 (0.35%)	19 (8.12%)		
Sometimes	18 (3.13%)	55 (23.5%)		
Escalation of violence				
Never	565 (98.09%)	131 (55.98%)	< 0.001 ^C *	
Often	0	31 (13.25%)		
Sometimes	11 (1.91%)	72 (30.77%)		
Substance abuse				
Never	574 (99.65%)	216 (92.31%)	< 0.001 ^C *	
Often	0	13 (5.56%)		
Sometimes	2 (0.35%)	5 (2.14%)		
General antisocial behavior				
Never	538 (93.4%)	140 (59.83%)	< 0.001 C*	
Often	0	15 (6.41%)		
Sometimes	38 (6.6%)	79 (33.76%)		
Criminality				
Never	575 (99.83%)	213 (91.03%)	< 0.001 ^C *	
Often	0	12 (5.13%)		
Sometimes	1 (0.17%)	9 (3.85%)		
Mental health problems				
Never	574 (99.65%)	221 (94.44%)	< 0.001 C*	
Often	0	5 (2.14%)		
Sometimes	2 (0.35%)	8 (3.42%)		

C - Chi-square test, MC - Chi-square test with Monte Carlo simulation, *indicates statistical significance

Subjective definitions of abuse and happiness further confound the development of accurate screening protocols. For example, the Kingdom of Bahrain has secured the fortieth position on the 2017-2019 global rankings published in the World Happiness Report released Sustainable Development Solutions Network for the United Nations, despite the considerable prevalence of domestic abuse.^[27] Corollary statistical estimates on low suicide rates among Bahraini (6.9%) women and increased likelihood of depression in older Bahraini women suggest a sporadic and volatile nature of abuse in the early stages of marriage and the presence of strong support systems that confer comfort and resilience.^[28] Although familial support systems exist, there is a wide scope for enhancing physicians, government agencies, and non-governmental organizations. Primary care physicians as the first point of contact can play a salient role in recognizing potential signs of abuse thereby preventing the occurrence of violence, inform women of their options in such abusive situations and mitigate the outcome of abuse to a considerable extent by referrals to domain-specific counsellers based on the root causes of the abuse. Due to poor institutional support, many women drop charges and suffer in silence, however, guidance and reassurance from trained professionals can prevent underreporting of cases. Corollary physical and mental health issues that arise from IPV can be diagnosed and treated in time if primary care physicians employ the right IPV screening tools. Futhermore, the role of technology in recognizing and managing abuse by developing coping mechanisms, and seeking non-abusive futures is also being researched.^[29]

This study has brought the following inferences to light: there exists a high prevalence of IPV among Bahraini women; husbands' violent behavior towards family members, relatives or friends, escalation of violence, substance abuse, general antisocial behavior, criminality and mental health issues were significantly associated with IPV; woman's relationship problems with her husband, individual behavior supporting violence, and history of violence from other family members were significantly linked to domestic abuse. WAST-short was shown to have a sensitivity of 100% and specificity of 18.8%, and hence, fails to displace WAST-long as the IPV screening tool of choice. A few limitations of this study include the absence of information on the most frequent forms of abuse and the missed opportunity to include

screening tools comparable to WAST-short. Future studies can evaluate the changes in screening tools' reliability based on the form of abuse incurred and other psychosocial factors associated with IPV.

Conclusion

Key findings of this study such as IPV prevalence of 71.11%, history of abusive and antisocial behavior by husbands towards wives, relatives, friends, substance abuse, criminality and psychological issues along with women's perception supporting violence have a deep bearing on the perpetration of IPV and provide salient guidance for developing high impact nuanced interventions. WAST-short fails to position itself as a reliable IPV screening tool. At the same time, WAST-long provides a robust alternative of equivalent consistency as a full-length questionnaire in a primary care setting. Based on our findings, we highly recommend supplementing marriage counselling programs with anger management strategies and cognitive behavioral therapy at the onset of abusive symptoms. Establishing woman support groups that encourage victims to report IPV should also be considered.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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