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Prevalence of discordant contraceptive use among female in reproductive age group due to intimate partner violence in Saudi Arabia-Taif 2019

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Abstract
Introduction: Understanding how intimate partner violence (IPV) modifies women's ability to adopt contraception is central to designing family planning interventions that allow women who experience IPV to manage their fertility. This study aimed to assess the prevalence and determinants of discordant contraceptive methods use among women in Taif, Saudi Arabia.
Methods: A cross-sectional study included 395 women attended health centers in Taif. A multistage random sampling technique was used to included participants. Only women who are/were married and aged 18-45 years old were included in this study. The data were collected using a self-administrated Arabic questionnaire including questions about women demographics, husband demographics, assessment of intimate partner violence and contraceptive use.
Results: A total of 395 women were included of them 90.9% were Saudi. Most of the women reported about current partners (85.8%), while 13.7% and 0.5% reported about dead and divorced partners, respectively. The prevalence of IPV was 61% in Taif region as reported by reproductive age women but the most frequent type was emotional violence. About three quarters of the women use contraceptive methods while only a small percentage reported covert use. Nationality of women was a significant Determinant for discordant contraceptive use in the present study. However, age, educational level, occupation, marital status, smoking and substance use were not statistically associated with and discordant contraceptive use among include women.
Conclusion: A high life-time prevalence of IPV reported in Taif. Being a victim of IPV as general term or as a specific domain including controlling behavior, emotional violence, physical violence, and sexual violence were significantly related to discordant contraceptive use.

Keywords: domestic violence, family planning, condom, contraceptive pills, Saudi

Introduction

Discordant contraceptive use defined as use of contraception reported by wives that was not reported by husbands**.** Intimate partner violence is one of the most common forms of violence against women. Intimate partner violence (IPV) refers to any behavior within an intimate relationship that causes physical, psychological or sexual harm to those in the relationship. Types of IPV behavior include acts of physical violence, sexual violence, emotional (psychological) abuse, and controlling behaviors [1].

Several studies report that women exposed to intimate partner violence (IPV) are less likely to use contraception, but the evidence that violence consistently constrains contraceptive use is inconclusive. One plausible explanation for this ambiguity is that the effects of violence on contraceptive use depend on whether couples are likely to have conflicting attitudes to it. In particular, although some men may engage in violence to prevent their partners from using contraception, they are only likely to do so if they have reason to oppose its use [2].

Family planning programs may be most effective when working with couples rather than just with women, and should focus on improving communication between couples, and supporting them in achieving concordance in their reproductive preferences [3].

On other hand, women's ability to control the timing, spacing, and number of their pregnancies is a critical health and human rights issue [4]. Understanding how intimate partner violence (IPV) modifies women's ability to adopt contraception is central to designing family planning interventions that allow women who experience IPV to manage their fertility.

This study aimed to assess the prevalence and determinants of discordant contraceptive methods use among women in Taif, Saudi Arabia.

Methods

A cross-sectional study was conducted in primary health care center (PHC) in Taif city, which included 19 PHC centers. A multistage random sampling technique was used to Included participants. At the first stage, selection of 2 PHC centers from each geographical region (four region) was conducted randomly by simple random (total 8). At second stage, women attended the centers were selected randomly till the required sample size of 395 was obtained. This sample size was calculated, using the Raosoft sample size calculator program, assuming that the prevalence of intimate partner violence among Saudi married women was 43.0% [5], at 95% confidence level and sample error of 5%. Only women who are/were married and aged 18-45 years old were included in this study. A woman who not willing to participate was excluded and replaced by a subsequent woman from patients' list. The data were collected using a self-administrated Arabic questionnaire for collecting data. It was accompanied with a cover letter to clarify the objectives of the study and the assurance of confidentiality.

The questionnaire consists of three parts. The first part included socio-demographic and personal characteristics of the participants such as age, nationality, education level, job and current marital status, residence, years since marriage, number of children, using contraceptive, husband acceptance, smoking, and substance use. The second part included socio-demographic and personal characteristics of the husband. The third part include 16 items to assess intimate partner violence using of direct, clearly worded questions were adapted from the WHO Multicountry Study on Women's Health and Domestic Violence by their male intimate partners [6]. Informed consents were obtained from surveyed women with assurance of privacy and confidentiality. This study is approved by Ethical Committee of Family medicine residency program – Taif.

After completing the electronic questionnaire, data was transferred into a personal computer and analyzed using SPSS software version 23. Continuous data was presented as mean and standard deviation while categorical data were analyzed and displayed as frequencies and percentages. Chi square test and Fisher Exact test were used when appropriate. The results were considered significant at $p < 0.05$.

Results

A total sample of 395 women was included in this study, of them 90.9% were Saudi and 9.1% were non-Saudi. The majority of the participants (71.6%) aged 36-48 years old, while only 2.5% were 18-25 years old. Regarding education, more than half of the women had a bachelor degree and 32.4% had a high school educational level. About 54.4% of the women were housewives but approximately 40% were working women. Most of the women reported about current partners (85.8%), while 13.7% and 0.5% reported about dead and divorced partners, respectively. Regarding use of psychoactive substances, only 1.3% were smokers and 0.5% were substance users (Table 1).

Table 1 also demonstrates the sociodemographic of their husbands with more or less similar characteristics. The majority of the husbands (70.4%) were in 36-55 age group with slightly older range than that in women and 10% of the husbands had two or more wives. About 93% of the husbands were Saudi and the majority of them working in military jobs. Husbands with high school constituted 41.3%, while 40% had a bachelor degree. Regarding use of psychoactive substances, 43% were smokers and 1.3% were substance users.

The reproductive characteristics of the women are shown in table 2. Women with less than 10 years of marriage were accounted for 29.9% and those with more than 30 years were only 9.6% of the sample. About 44% had 4-6 children, followed by 40.3% had 1-3 children but 6.3% of the women had no children. The prevalence of contraceptive use was 74.9%, and the prevalence of discordant contraceptive use was 1.8%. Husband acceptance for contraceptives use was reported by 73.2% of the women. The prevalence of IPV was 61% among reproductive age women.

Table 3 and 4 presented the distribution of the items related to intimate partner violence assessment in 5 and 3 Likert scale, respectively. Table 4 with 3 Likert scale of intimate partner violence (IPV) is more interpretable. Regarding controlling behavior domain of IPV, taking permission before seeking healthcare and ignorance with indifferent treatment by the husband were the most common items which reported by 41% and 40.5% of the women, respectively. Items such as husband tries to restrict contact with family was the least reported item (16.5%) followed by item of being often suspicious of faithfulness (34.9%). In general, items of emotional violence were less frequently reported than items of controlling behavior. The percentage of "Yes" answers ranged from 19.7% in "Threatens to hurt" to 25.3% in "Insults and makes women feel bad". Physical violence was not frequent among the women as 3.8% were subjected to chokes or burns on purpose, 5.8% were threatened to use or used gun or knife. More proportion of women were victims of less intensity violence such as slapped/thrown something or physically hits with fist, pushes or shoves which were reported by 16.5% or 12.4%, respectively. In general, sexual violence was the least reported violence with a range of 6.8% in item "Had sexual intercourse because of fear" to 5.6% in item "Force to do sexual act that is degrading or humiliating or unacceptable". Figure 1 demonstrates how prevalence of violence, reported by surveyed women, decreased gradually as intensity of the violence increased from controlling behavior to sexual violence.

We found that use of contraceptive as general was not statically associated with IPV or any specific domain of IPV including controlling behavior, emotional, physical or sexual violence. However, IPV was significant predictor for discordant use of contraceptive methods.

Association between women characteristics and discordant contraceptive use is demonstrated in table 5 and 6. Age, educational level, occupation, marital status, smoking and substance use were not statistically associated with and discordant contraceptive use among include women. Nationality was a significant determinant for discordant contraceptive use, since 8.3% of Non-Saudi women reported discordant contraceptive use in comparison to 1.1% of Saudi women. Reproductive characteristics, except years since marriage, were significantly associated with discordant contraceptive use. Having 3 children or less and being a victim of IPV as general term or as a specific domain (controlling behavior, emotional violence, physical violence, and sexual violence), were significantly related to discordant contraceptive use.

Table 7 shows association between husbands' characteristics and discordant contraceptive use. Low level of education (High school or lower), non-Saudi nationality, non-military occupation, being smoker, and presence of more than one wife in the family were significantly associated with higher reporting of discordant contraceptive use. Age and substance use among the husbands were not significantly related to discordant contraceptive use.

Discussion

Intimate partner violence was found to be associated to adverse sexual and reproductive health of affected women. Elevated risk of unplanned pregnancy, venereal diseases such as HIV infection, and abortion was found to be associated with IPV [7, 8]. Women autonomy, even in well-educated college women, could be influenced by reproductive coercion which is characterized by direct or indirect interference in pregnancy decisions using emotional, physical and sexual violence (9, 10). Family planning strategies such as contraceptive use could protect women from reproductive coercion and its associated adverse health outcomes. One strategy is knowns as covert

or discordant use of contraception method without partner's knowledge. This study aimed to assess the prevalence and determinants of discordant contraceptive methods use among women in Saudi Arabia. The present study found the prevalence of IPV was 61% among the surveyed women in Taif region. The reported prevalence of controlling behavior claimed by the women was the highest (58.7%) followed by emotional, physical and sexual violence with 30.9%, 19.2% and 10.1%, respectively. Globally the life-time prevalence of IPV is 75% and it is considered as the most common type of domestic violence [10]. Pooled analysis showed that the prevalence is high in sub-Saharan African countries with mean of 65.6%, while it is low in east Asia with mean of 16.3% [8]. In Ethiopia, about 36% of women experienced IPV as a composite scale of physical, sexual and emotional violence. Controlling behavior was reported by 56% of women at reproductive age. The study found that IPV is a significant predictor for unintended pregnancy [11]. A study conducted among 457 women in Bangladesh found a 25.8% prevalence of IPV [12].

Intimate partner violence in Saudi Arabia could be considered to have a high life-time prevalence rate, particularly, the emotional violence. A lower prevalence (43%) of intimate partner violence among Saudi married women in Riyadh [5]. However, they found the most common type of violence was controlling behavior, followed by emotional, sexual and finally physical violence. In our study, we found physical violence more common than sexual violence. This could be attributed to sensitivity of the topic of sexual violence or due to different interpretation by surveyed women of what sexual violence is. Different patterns of violence were reported from the world. In Tanzania, the prevalence of IPV was 73% and the most common type was the physical violence (54.1%) followed by emotional and sexual violence [13].

Women suffer many adverse outcomes of IPV in general health and particularly in reproductive health. Women who were victims of IPV had a higher risk to have unintended pregnancy and induced abortion with odds ratios of 1.7 and 2.7, respectively [14, 15]. The mechanisms through which IPV affect women reproductive health are dependent on the type of violence.

The findings of this study revealed that prevalence of violence, reported by surveyed women, decreased gradually as intensity of the violence increased from controlling behavior through physical violence to sexual violence. More violent forms of IPV might be less common but are more likely to cause substantial health effects such as anxiety, depression, substance abuse, STIs, and suicide [16].

The present study found age, educational level, occupation, marital status, smoking and substance use were not statistically associated with and discordant contraceptive use among include women. Many studies in the literature found younger age and low educated women more commonly victims of intimate partner violence [17, 18].

Nationality was a significant determinant for discordant contraceptive use in the present study. Foreign workers in Saudi Arabia have less socioeconomic status and different cultural backgrounds which make them more vulnerable to social problems such as domestic violence [19]. Urban residents, higher educated women and women aged 20-44 were more likely to use contraceptives than their peers in rural areas, those with lower education and those in their late forties (45-49 years) [12].

The findings of the present study revealed that the prevalence of contraceptive use among reproductive age women in Saudi Arabia was 74.9%, and the prevalence of discordant contraceptive use was 1.8%. However, the use of contraceptive as general was not statically associated with IPV or any specific domain of IPV including controlling behavior, emotional, physical or sexual violence. However, we found that being a victim of IPV as general term or as a specific domain (controlling behavior, emotional violence, physical violence, and sexual violence), were significantly related to discordant contraceptive use.

The majority of studies in the literature assessed the association between IPV and general use of contraceptive methods, not specifically association with discordant use. An Egyptian study found male dominance as a significant determinant for reduction of contraceptive methods use [20]. In Tanzania, a community based survey found that increase IPV lead to significant reduction in contraceptive methods use [13].

Different results were reported in England with study no significant association between women experienced IPV and emergence modern contraceptive methods use [21]. Another study from South Asia reported similar non-significant relation between domestic violence and contraceptive use. Furthermore, a non-significant association between IPV and use of family planning methods was reported in studies conducted in Congo and Uganda.

The findings of a prospective study from India revealed that the violence have no significant effect on use of family planning measures [2]. Another study from India aimed to assess type of contraceptive methods that may be associated with physical violence. The authors found that women who suffered IPV were less likely to use condoms but more likely to use other methods such as intra-uterine devices [22]. With a violent partner who wants more children, a woman cannot convince the man to use condom and it may be safer for her to use other covert methods. A systematic review found women who experience IPV were less likely to report using condoms with their male partners [23].

The reason of these contradicting results in the literature could be attributed to the fact that use of contraceptive methods is more related to the consensus between the woman and man regarding the fertility preference than to the violence itself. If a woman intends to use contraceptive methods but her partner wants more children, then violence or reproductive coercion may force the woman to non-use of contraception methods. Differently, if the man does not want children and the woman does, then violence could be used to force women to use contraception methods. However, if the couple sharing the same fertility preferences, the violence may have no relation with use of contraceptive methods [24]. This reasoning is supported by our findings since IVP was not significantly related to contraceptive use as general. But when we focused in women with discordant use, the violence became a significant determinant of contraceptive use. in another words, the abused women were more likely to do a covert use of contraception methods than non-abused women. Abused women might be afraid to discuss their fertility preferences with their husbands so they shifted to covert use. Covert use of contraceptive methods can protect a woman from reproductive coercion by a violent husband.

These assumptions are further supported by the findings of a

qualitative-quantitative study that was conducted in Bolivia. The investigators found that 19% of the studied women were covertly using contraceptive pills. Moreover, the IPV was strongly related to the covert use with 21.7 odds ratio. The IPV was also a marginal predictor for discontinuation of contraceptive pills [25]. Furthermore, IPV was significantly associated with discordant fertility intentions in Bangladesh. This disagreement in fertility preferences between partners was related to intimate partner violence [12]. He limitation of this study is using a lifetime prevalence of IPV which usually overestimate the magnitude of the problem. Using 12 months IPV would be between to estimate the current situation of the intimate partner violence. The assessment of contraceptive use in this study was general and no type-specific was reported. Furthermore, the assessment of the discordant contraceptive use based on women responses is not adequate. A comprehensive data collection from both partners is indicated to validate the discordance status.

Table 1: Demographic characteristics of the participants and their husbands

Characteristics of the women			***Characteristics of the husband***		
	F	**%**		**F**	**%**
Age					
18-25	10	2.5	*18-25*	4	1.0
26-30	38	9.6	*26-35*	64	16.2
31-35	64	16.2	*36-45*	137	34.7
36-40	96	24.3	*46-55*	141	35.7
41-48	187	47.3	*56-65*	46	11.6
			66-75	1	0.3
			>75	2	0.5
Nationality					
Saudi	359	90.9	*Saudi*	368	93.2
Non-Saudi	36	9.1	*Non-Saudi*	27	6.8
Educational level					
Illiterate	4	1.0	*Illiterate*	5	1.3
Elementary	8	2.0	*Elementary*	9	2.3
Intermediate	13	3.3	*Intermediate*	36	9.1
Secondary	128	32.4	*Secondary*	163	41.3
Bachelor	220	55.7	*Bachelor*	158	40.0
Master	14	3.5	*Master*	17	4.3
PhD	8	2.0	*PhD*	7	1.8
Job					
House wife	215	54.4	*Military*	245	62.0
Working	156	39.5	*Non-military*	50	12.7
Retired	24	6.1	*Unemployed*	82	20.8
			Retired	16	4.1
			Others	2	0.5
Marital status					
Married	339	85.8	*one wife*	356	90.1
Widow	54	13.7	*More than one*	39	9.9
Divorced	2	0.5			
Smoking					
Yes	5	1.3	*Yes*	170	43.0
No	390	98.7	*No*	225	57.0
Substance use					
Yes	2	0.5	*Yes*	5	1.3
No	393	99.5	*No*	390	98.7

Table 2: Reproductive characteristics and contraceptive use among women

Variables	***Frequency***	***Percent (%)***
Years since marriage		
Less than 10 years	118	29.9
11-20	143	36.2
21-30	96	24.3
More than 30 years	38	9.6
Number of children		
No children	25	6.3
1-3	159	40.3
4-6	173	43.8
More than 6 children	38	9.6
Contraceptive use		

Yes	296	74.9
No	99	25.1
Discordant contraceptive use		
Yes	7	1.8
No	388	98.2
Husband acceptance		
Yes	289	73.2
No	7	1.8
Non-applicable	99	25.1

Table 3: Intimate partner violence assessment among the participant women

Characteristics	***All of the time***		***Most of the time***		***Sometimes***		***Rarely***		***Never***	
	F	**%**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**
Controlling behavior										
Try to keep you away from friends.	9	2.3	31	7.8	53	13.4	49	12.4	253	64.1
Tries to restrict contact with family.	3	0.8	22	5.6	23	5.8	17	4.3	330	83.5
Ignores and treats indifferently.	4	1.0	20	5.1	75	19.0	61	15.4	235	59.5
Often suspicious of faithfulness.	5	1.3	25	6.3	52	13.2	56	14.2	257	65.1
Take permission before seeking health care.	37	9.4	39	9.9	41	10.4	45	11.4	233	59.0
Emotional violence										
Insults and makes you feel bad.	5	1.3	21	5.3	43	10.9	31	7.8	295	74.7
Scares or intimidate on purpose .	4	1.0	11	2.8	32	8.1	28	7.1	320	81.0
Threatens to hurt.	4	1.0	14	3.5	26	6.6	30	7.6	321	81.3
Physical behavior										
Threatens to use or used gun, knife.	1	0.3	7	1.8	8	2.0	7	1.8	372	94.2
Slapped/thrown something.	1	0.3	16	4.1	18	4.6	30	7.6	330	83.5
Physically hits with fist, Pushes or shoves .	3	0.8	10	2.5	16	4.1	20	5.1	346	87.6
Kicks, drags, or beat you up.	1	0.3	9	2.3	13	3.3	5	1.3	367	92.9
Chokes or burns on purpose.	-	-	8	2.0	4	1.0	3	0.8	380	96.2
Sexual violence										
Had sexual intercourse because of fear.	-	-	9	2.3	7	1.8	11	2.8	368	93.2
Physically forced to have sexual intercourse.	-	-	7	1.8	13	3.3	6	1.5	369	93.4
Force to do sexual act that is degrading or humiliating or unacceptable.	-	-	6	1.5	8	2.0	8	2.0	373	94.4

Table 4: Intimate partner violence assessment among the participant women

Characteristics	***Always/ mostly***		***Sometimes/rarely***		***Not at all***	
	F	**%**	**F**	**%**	**F**	**%**
Controlling behavior						
Try to keep you away from friends.	40	10.1	102	25.8	253	64.1
Tries to restrict contact with family.	25	6.3	40	10.1	330	83.5
Ignores and treats indifferently.	24	6.1	136	34.4	235	59.5
Often suspicious of faithfulness.	30	7.6	108	27.3	257	65.1
Take permission before seeking health care.	76	19.2	86	21.8	233	59.0
Emotional violence						
Insults and makes you feel bad.	26	6.6	74	18.7	295	74.7
Scares or intimidate on purpose	15	3.8	60	15.2	320	81.0
Threatens to hurt. Physical behavior	18	4.6	56	14.2	321	81.3
Threatens to use or used gun, knife.	8	2.0	15	3.8	372	94.2
Slapped/thrown something.	17	4.3	48	12.2	330	83.5
Physically hits with fist, Pushes or shoves .	13	3.3	36	9.1	346	87.6
Kicks, drags, or beat you up.	10	2.5	18	4.6	367	92.9
Chokes or burns on purpose.	8	2.0	7	1.8	380	96.2
Sexual violence						
Had sexual intercourse because of fear.	9	2.3	18	4.6	368	93.2
Physically forced to have sexual intercourse.	7	1.8	19	4.8	369	93.4
Force to do sexual act that is degrading or humiliating or unacceptable.	6	1.5	16	4.1	373	94.4

Table 5: Association between women characteristics and discordant contraceptive use

Characteristics	*Discordant contraceptive use*		*Chi-square*	*P value*
	No	**Yes**		
Age				
≤35	108	4	2.9	0.104
	96.4%	3.6%		
>35	280	3		
	98.9%	1.1%		
Educational level				
High school or lower	149	4	1.0	0.437
	97.4%	2.6%		
Bachelor or higher	239	3		
	98.8%	1.2%		
Nationality				
Saudi	355	4	9.8	0.019*
	98.9%	1.1%		
Non-Saudi	33	3		
	91.7%	8.3%		
Job				
House wife	211	4	0.463	0.793
	98.1%	1.9%		
Working	153	3		
	98.1%	1.9%		
Retired	24	0		
	100.0%	0.0%		
Marital status				
Married	332	7	1.2	0.614
	97.9%	2.1%		
Widow	54	0		
	100.0%	0.0%		
Divorced	2	0		
	100.0%	0.0%		
Smoking				
Yes	5	0	0.09	0.762
	100.0%	0.0%		
No	383	7		
	98.2%	1.8%		
Substance use				
Yes	2	0	0.036	0.849
	100.0%	0.0%		
No	386	7		
	98.2%	1.8%		

Table 6: Association between certain women characteristics and discordant contraceptive use

Characteristics	*Discordant contraceptive use*		*Chi-square*	*P value*
	No	**Yes**		
Years since marriage				
≤20 years	254	7	3.7	0.101
	97.3%	2.7%		
>20 years	134	0		
	100.0%	0.0%		
Number of children				
≤3 children	177	7	8.2	0.004*
	96.2%	3.8%		
>3 children	211	0		
	100.0%	0.0%		
IPV				
Abused women	234	**7**	4.6	0.046*
	97.1%	2.9%		
Not abused women	154	0		
	100.0%	0.0%		
Controlling behavior				
Yes	225	7	5.0	0.045*
	97.0%	3.0%		
No	163	0		
	100.0%	0.0%		
Emotional violence				

Yes	115	7	15.9	<0.001*
	94.3%	5.7%		
No	273	0		
	100.0%	0.0%		
Physical violence				
Yes	69	7	29.9	0.001*
	90.8%	9.2%		
No	319	0		
	100.0%	0.0%		
Sexual violence				
Yes	36	4	17.3	0.003*
	90.0%	10.0%		
No	352	3		
	99.2%	0.8%		

Table 7: Association between husbands' characteristics and discordant contraceptive use

Characteristics	***Discordant contraceptive use***		***Chi-square***	***P value***
	No	**Yes**		
Age				
≤ 45	202	3	0.23	0.715
	98.5%	1.5%		
>45	186	4		
	97.9%	2.1%		
Educational level				
High school or lower	206	7	6.1	0.017*
	96.7%	3.3%		
Bachelor or higher	182	0		
	100.0%	0.0%		
Nationality				
Saudi	364	4	14.5	0.008*
	98.9%	1.1%		
Non-Saudi	24	3		
	88.9%	11.1%		
Job				
Military	245	0	14.4	0.042*
	100.0%	0.0%		
Non-military	47	3		
	94.0%	6.0%		
Unemployed	78	4		
	95.1%	4.9%		
Retired	16	0		
	100.0%	0.0%		
Others	2	0		
	100.0%	0.0%		
Number of wives in the family				
One wife	356	0	65.1	<0.001*
	100.0%	0.0%		
>one wife	32	7		
	82.1%	17.9%		
Smoking				
Yes	164	6	5.3	0.046*
	96.5%	3.5%		
No	224	1		
	99.6%	0.4%		
Substance use				
Yes	5	0	0.09	0.762
	100.0%	0.0%		
No	383	7		
	98.2%	1.8%		

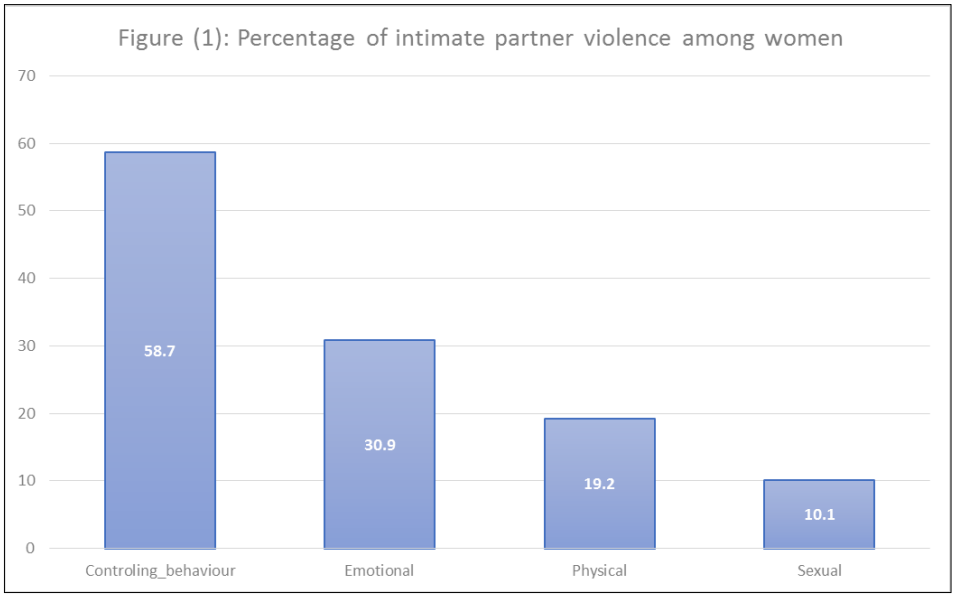

Fig 1

Conclusions

The prevalence of IPV was high in Taif region as reported by reproductive age women but the most frequent type was emotional violence. About 3 quarters of the women use contraceptive methods while only a small percentage reported covert use. being a victim of IPV as general term or as a specific domain (controlling behavior, emotional violence, physical violence, and sexual violence), were significantly related to discordant contraceptive use. Nationality of women was a significant determinant for discordant contraceptive use in the present study. However, age, educational level, occupation, marital status, smoking and substance use were not statistically associated with and discordant contraceptive use among include women.

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