A Territory-wide Survey on Intimate Partner Violence among Pregnant Women in Hong Kong

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Objective:
To report the prevalence and type of intimate partner violence victimisation and examine socio-economic influences on intimate partner violence among pregnant women in Hong Kong.

Methods:
This survey was carried out in the antenatal clinics in seven public hospitals across six clusters in Hong Kong. A total of 3245 pregnant women participated in this study. The Abuse Assessment Screen and socio-demographic questionnaires were administered face-to-face to each of the respondents when they attended antenatal clinics between 32 and 36 weeks of gestation.

Results:
A total of 3245 pregnant women, with a mean age of 30.8 (standard deviation, 4.8) years, were recruited. Most of them were Chinese (96.5%) and married (97.3%). Just over one-third (36.3%) had a monthly household income of less than $15 000 and approximately half (44.4%) were in need of financial assistance. Unplanned pregnancy was reported by 35.3% of the women and about 7% had had conflicts with their in-laws in the previous 12 months. Intimate partner violence victimisation in the preceding 12 months was reported by 296 (9.1%) women, and since becoming pregnant by 212 (6.5%) women.

Of those abused in the past year, 216 (73%) reported experiencing psychological abuse only and 80 (27%) reported physical and/or sexual abuse. Forty-six (57.5%) women in the physical and/or sexual abuse group also reported psychological abuse. Before adjusting for the effects of socio-demographic factors, the risk of being abused by an intimate partner varied across the clusters (p<0.01). However, after controlling for the socio-demographic factors of being in debt, in need of financial assistance, having an unplanned pregnancy and conflict with in-laws, differences across the clusters were not observed (p=0.07).

Conclusion:
In this first territory-wide survey, evidence was found of intimate partner violence victimisation among local pregnant women and socio-economic influences on intimate partner violence were identified. This underscores the importance of screening women for intimate partner violence during pregnancy with special attention being given to those with known risk factors.

Introduction

Intimate partner violence (IPV) refers to a pattern of assaultive and coercive behaviour used by the perpetrator to gain power and control over the victim. The perpetrator, in this context, is an intimate partner who may be the current spouse (including common-law spouse), current non-marital partner (e.g. dating partner or boyfriend/girlfriend), former marital partner (e.g. divorced spouse, separated spouse, former common-law spouse), or former non-marital partner (e.g. former dating partner or former boyfriend/girlfriend)[1]. Abusive behaviour may include physical aggression (e.g. slapping, hitting, kicking, or beating); psychological abuse (e.g. humiliation, intimidation, or threats); sexual assault (e.g. forced intercourse or sexual coercion); and various types of controlling behaviour (e.g. stalking, deprivation or progressive social isolation)[2].

Intimate partner violence has been described as a health care problem of epidemic proportions[3]. Results obtained from 48 population-based surveys around the world indicate that 10-69% and 3-52% of women respectively reported being physically assaulted by an intimate partner during their lifetime or in the previous 12 months[2]. In Hong Kong, population-based studies on IPV are relatively scarce and government statistics on the prevalence of IPV report much lower levels than the unofficial estimates based on self-reported surveys and residential services provided by shelters for abused women[4]. Nevertheless, an increase in domestic violence has been reported by the police as evidenced by a rise of 79% in 2006 compared to 2005[5].

The first study on IPV among pregnant women in Hong Kong was conducted in 1998 in the antenatal clinics of a teaching hospital[6]. Of the 631 respondents, 99 (15.7%) reported being abused in the previous 12 months and 27 (4.3%) during the current pregnancy. The husband was the perpetrator in most of the cases[6]. Two further studies were conducted in the same hospital in 2002 and 2005, and the rates observed for IPV were 16.6% and 5% respectively[7,8]. The observed differences in prevalence may reflect variations in the study populations given that they were small, single-site samples. For this reason the generalisability of the results is limited. Furthermore, local information about the socio-demographic characteristics of pregnant women abused by an intimate partner is also limited. The need for such information is compelling as socio-economic status has consistently been identified as a risk factor for IPV during pregnancy[9,10] and, given the diverse social and economic factors across the 18 districts in Hong Kong[11], pregnant women in some districts may be more at risk of IPV than others. Since abuse during pregnancy poses health risks, not only for the woman but also for her unborn child[12], detecting those at risk of IPV may prevent an escalation of the problem. There is, therefore, a need for a better understanding of the socio-economic influences on IPV in the local pregnant population so as to inform strategies for early detection and timely

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prevention.

The purpose of the present study was to conduct a territory-wide, multi-site survey to investigate IPV among pregnant women in Hong Kong. The impact of IPV on the mental health of the respondents in the study has been reported elsewhere[13]. This paper reports on the prevalence and type of IPV that occurred in the 12 months prior to the survey and since the respondents became pregnant, among patients attending six clusters of public hospitals in Hong Kong, as well as examining the socio-economic factors influencing the committing of IPV against pregnant women.

Methods

This was a territory-wide survey on IPV among pregnant women in Hong Kong. The study was conducted in the Obstetrics and Gynaecology departments of seven public hospitals across six hospital clusters. Between 1 July 2005 and 30 April 2006, women attending antenatal clinics, who were 18 years or older and between 32 and 36 weeks into their pregnancy, were invited to participate in the study. Those who were not competent to give informed consent or were not able to complete the survey without the presence of a family member were excluded. Sampling was consecutive.

The Abuse Assessment Screen (AAS[14]) was used to identify the prevalence and type of IPV. For Chinese participants, a Chinese version of the AAS was used which has been validated for the local population[15]. Women were identified as victims of IPV if they answered 'yes' to any of the questions on physical, psychological, or sexual abuse by an intimate partner in the preceding 12 months or since becoming pregnant.

Socio-demographic information was collected on the respondents using a questionnaire which covered: nationality, age, marital status, education, employment, monthly household income, indebtedness, need for financial assistance, social support, parity, planned pregnancy, chronic illness in the family, and conflict with in-laws.

The study was approved by the institutional review board of each of the participating hospitals. After obtaining the written informed consent of each participant, an individual, in-clinic face-to-face interview

was conducted by one of the research nurses who had extensive training and experience in collecting sensitive information from abused pregnant women, while at the same time ensuring the latter's privacy and safety.

The socio-demographic factors as well as the prevalence of IPV reported for each cluster of hospitals in Hong Kong were summarised by descriptive statistics. Specifically, the prevalence of IPV in the preceding 12 months and since becoming pregnant was reported together with the exact 95% confidence intervals. Moreover, the differences across clusters were examined using logistic regression. The Hosmer-Lemeshow test[16] was used to assess the goodness-of-fit of the logistic models. The logistic analysis was repeated after adjustment for the socio-demographic factors influencing IPV. A 5% level of significance was used in all significance tests and the Statistical Analysis System (SAS) version 9.0 was used for the statistical analysis.

Results

A total of 3245 pregnant women, with a mean age of 30.8 (standard deviation [SD], 4.8) years, were recruited for this survey. Table 1 shows the socio-demographic characteristics of the participants. Most of the women (96.5%) were Chinese and married (97.3%). Approximately two-thirds (68.7%) had an educational attainment of Form 5 or lower, almost half (45%) were not in paid employment, about one-third (36.3%) had a monthly household income of less than $15 000 and approximately half (44.4%) were in need of financial assistance. Nearly half were experiencing their first pregnancy and more than one-third (35.3%) of the pregnancies were unplanned. About 7% of women reported conflicts with their in-laws in the previous 12 months.

Compared to the other clusters, participants from New Territories West and Kowloon East had a higher percentage of low educational attainment (Form 5 or lower) (81.5% and 78% respectively), a monthly household income of less than $15 000 (49.1% and 47.3% respectively), and unplanned pregnancy (38.2% and 43.2% respectively). Hong Kong West, on the other hand, had a higher percentage of high educational attainment (Form 6 or above: 43.8%), and a lower percentage of being in debt (4.3%), of chronic illness in the family (14.9%), and of conflict with in-laws in the

Table 1. Participants' socio-demographic characteristics across clusters*†

Demographic characteristics	Cluster						Total (n=3245)
	Hong Kong West (n=550)	Hong Kong East (n=567)	Kowloon East (n=414)	Kowloon West (n=685)	Kowloon Central (n=477)	New Territories West (n=552)	
Nationality							
Chinese	520 (94.7)	544 (96.3)	404 (97.8)	650 (98.3)	457 (95.8)	530 (96.0)	3105 (96.5)
Mean (SD) age (years)	31.0 (4.7)	31.5 (4.5)	30.6 (5.0)	31.1 (4.7)	31.0 (4.9)	29.5 (5.1)	30.8 (4.8)
Marital status							
Married or cohabitating	524 (95.3)	564 (99.5)	402 (97.1)	655 (95.8)	470 (98.5)	541 (98.0)	3156 (97.3)
Education							
Form 5 or below	309 (56.2)	350 (61.7)	322 (78.0)‡	485 (71.0)‡	311 (65.2)	450 (81.5)	2227 (68.7)
Form 6 or above	241 (43.8)	217 (38.3)	91 (22.0)‡	198 (29.0)‡	166 (34.8)	102 (18.5)	1015 (31.3)
In paid employment	326 (59.3)	363 (64.0)	197 (47.6)	387 (56.5)	277 (58.1)	227 (41.1)	1777 (54.8)
Monthly household income‡							
$0-$14 999	165 (30.4)	144 (25.7)	192 (47.3)	249 (36.8)	142 (30.7)	271 (49.1)	1163 (36.3)
≥$15 000	378 (69.6)	417 (74.3)	214 (52.7)	427 (63.2)	320 (69.3)	281 (50.9)	2037 (63.7)
In debt	19 (4.3)	31 (5.5)	41 (10.1)	37 (5.5)	37 (7.8)	27 (4.9)	192 (6.0)
In need of financial assistance	103 (18.7)	477 (84.3)	102 (24.7)	268 (39.1)	390 (81.8)	100 (18.1)	1440 (44.4)
First pregnancy	316 (57.5)	331 (58.4)	165 (39.9)	311 (45.4)	230 (48.2)	262 (47.5)	1615 (49.8)
Unplanned pregnancy	181 (32.9)	192 (33.9)	179 (43.2)	234 (34.2)	148 (31.0)	211 (38.2)	1145 (35.3)
Chronic disease in family	82 (14.9)	118 (20.8)	91 (22.0)	134 (19.6)	95 (19.9)	97 (17.6)	617 (19.0)
In-law conflicts	20 (4.1)	35 (6.4)	24 (6.6)	44 (8.6)	32 (8.0)	32 (8.0)	187 (6.7)

* Values are presented as No. (%) or mean (SD), unless otherwise stated

† Data were missing in some cases

‡ Median monthly domestic household income was HK$ 17 250 in 2006 (data from 2006 Population by-census, Census & Statistics Department, HKSAR Government, 2007)

past year (4.1%).

Among the participants, 296 (9.1%; 95% confidence interval [CI], 8.2-10.2%) reported having been abused by their intimate partners during the preceding 12 months and 212 (6.5%; 95% CI, 5.7-7.4) had been abused since becoming pregnant. Of those abused in the past year, 216 (73%; 95% CI, 67.5-77.9%) reported only psychological abuse while 80 (27%; 95% CI, 22.1-32.5%) were physically and/or sexually abused. More than half (57.5%) of those who were physically and/or sexually abused also reported psychological abuse.

Figure 1 shows the prevalence of IPV in the different clusters. During the preceding 12 months, the lowest prevalence of IPV was observed in Hong Kong West (4.2%; 95% CI, 2.7-6.2%; p<0.001). The remaining clusters shared a similar level of prevalence of IPV. For the time period of since becoming pregnant, the lowest prevalence was also observed in Hong Kong West (3.3%; 95% CI, 2.0-5.1%; p<0.001) whereas the highest prevalence was observed in Kowloon Central (9.6%; 95% CI, 7.2-12.7%; p=0.005).

The type of IPV in the different clusters is shown

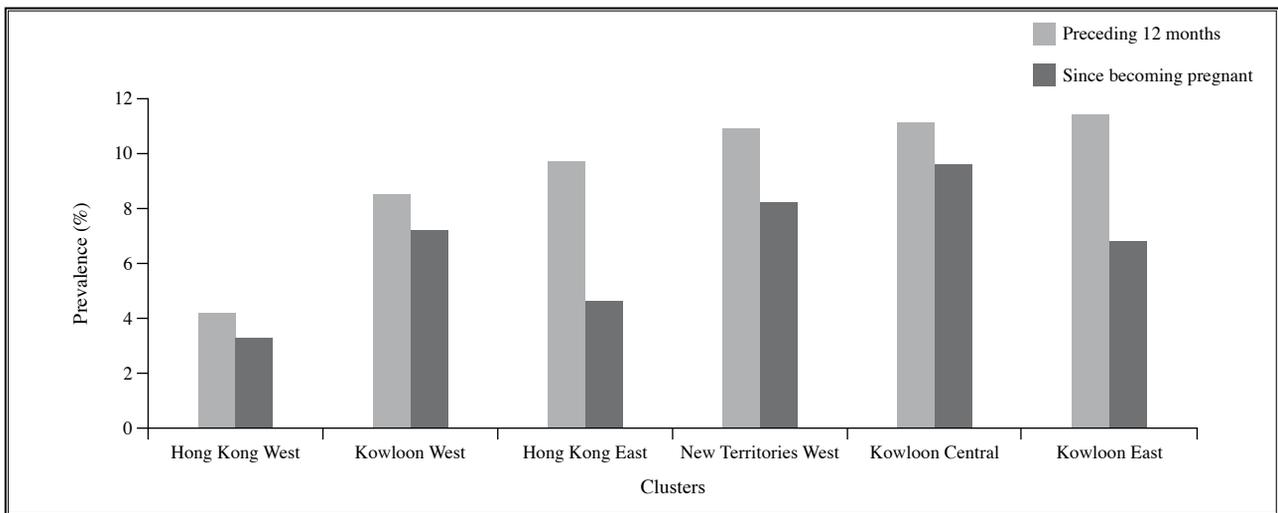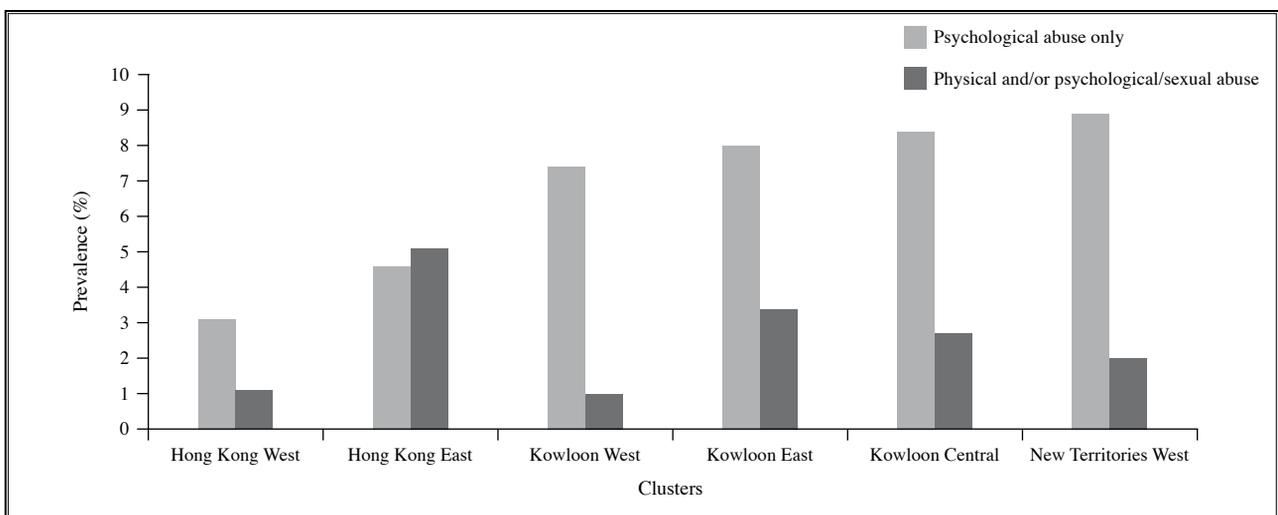*Figure 1. The prevalence of intimate partner violence across clusters*

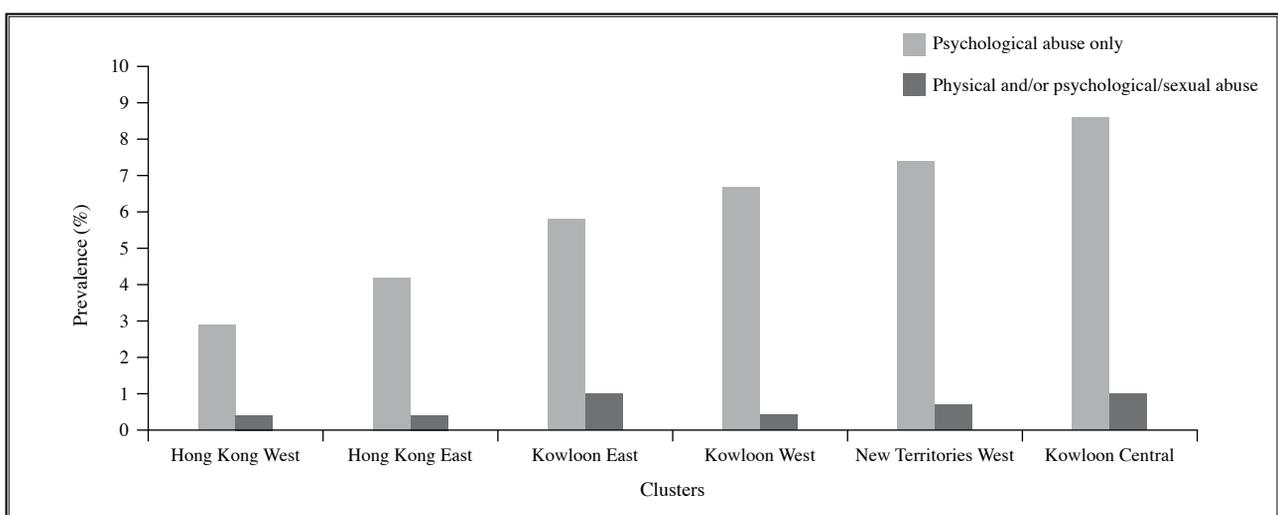*Figure 2. The type of abuse across clusters in the preceding 12 months*

Figure 3. The type of abuse across clusters since becoming pregnant

in Figure 2 (the preceding 12 months) and Figure 3 (since becoming pregnant). Hong Kong West had the lowest level of psychological abuse only in the preceding 12 months period (3.1%; 95% CI, 1.8-4.9%) and since becoming

Table 2. Differences in risk of intimate partner violence across clusters before and after adjusting for socio-economic factors

	Before adjusting for effects of socio-economic factors		After adjusting for effects of socio-economic factors	
	Odds ratio (95% CI)	p Value	Odds ratio (95% CI)	p Value
Cluster		<0.01		0.07
Hong Kong East	0.88 (0.6-1.30)	0.45	1.41 (0.73-2.19)	0.41
Hong Kong West	0.36 (0.22-0.59)	<0.01	1.24 (0.30-1.04)	0.07
Kowloon Central	1.03 (0.69-1.52)	0.06	0.56 (0.85-2.59)	0.17
Kowloon East	1.05 (0.70-1.57)	0.05	1.48 (0.63-1.84)	0.79
Kowloon West	0.76 (0.52-1.11)	0.70	1.08 (0.49-1.44)	0.52
New Territories West	1	-	1	-

pregnant (2.9%; 95% CI, 1.7-4.7%). The highest level of psychological abuse only for the preceding 12 months was observed in New Territories West (8.9%; 95% CI, 6.6-11.5%), and for the period since becoming pregnant was observed in Kowloon Central (8.6%; 95% CI, 6.2-11.5%). For physical and/or sexual abuse, a rather mixed picture emerges across the clusters.

Table 2 shows the differences in the risk of IPV across the clusters before and after adjusting for socio-demographic factors. Before adjusting for the effects of socio-economic factors, the risk of being abused by an intimate partner varied significantly across the clusters (p<0.01). However, after controlling for the socio-demographic factors of being in debt, needing financial assistance, an unplanned pregnancy, and conflict with in-laws, no difference was observed across the clusters (p=0.07). The Hosmer-Lemeshow test did not show lack of fit in either model (p>0.492).

Discussion

This is a territory-wide survey to investigate IPV among pregnant women in Hong Kong. The prevalence of abuse across six hospital clusters was found to be 9.1% in the 12 months prior to the survey and 6.5% since the respondents became pregnant. The findings appear to be comparable to the earlier estimates of 4-8% in the US[17,18] and 5-17% in local studies[6-8]. However, caution should be exercised when comparing these findings. In the US studies, the type of abuse was mainly physical whereas in the local studies, including the current survey, the abuse was mainly psychological in nature. Furthermore,

for the pregnant women in the present survey, much of the psychological abuse was not accompanied by physical and/or sexual abuse. It is possible that the pregnant women reporting only psychological abuse were only beginning to experience disharmony in their relationship with their partner, as psychological abuse almost always precedes physical abuse[19]. On the other hand, psychological abuse (in the absence of physical and/or sexual abuse) may be a unique feature of IPV in the Chinese society. As reported elsewhere[13], many of the women in this survey considered shaming to be the worst form of abuse and one that caused them to be fearful of the perpetrator. Since Chinese culture is shame-oriented and shaming is a powerful social control mechanism[20], this may explain why psychological denigration, rather than physical force, is used to control women in abusive intimate relationships in the Chinese society. However, this is pure supposition and further investigation is warranted to study the trajectory of abusive relationships in Chinese couples.

It is also possible that physical abuse did happen before a pregnancy but was suspended or changed to psychological abuse during the pregnancy and that women 'enjoyed' a short period of 'honeymoon' in the cycle of violence. If so, physical abuse may re-start after the birth of a baby. This may explain why, in this survey, the prevalence of IPV reported for the since-becoming-pregnant time period was lower than that for the preceding 12 months. However, as the data did not distinguish between IPV victimisation prior to or after pregnancy, it is impossible to know whether

women were victimised at a higher or lower rate after becoming pregnant and after childbirth. Future studies could include an extra time period—around the time of pregnancy—which would reveal whether abuse occurs before, during, or after pregnancy[18].

The finding that some pregnant women in Hong Kong were abused by their intimate partners challenges the popular belief that interpersonal harmony is highly valued in the Chinese society and that the fundamental concern of Chinese culture is to maintain social harmony[21]. Furthermore, according to traditional Chinese attitudes to childbearing, having children means having more good fortune[22] and a woman's social status would normally be elevated immediately with the birth of a son[23]. Yet, for some of the women in our study, having children does not seem to protect them from abuse. Researchers in Hong Kong have long argued that traditional Chinese values are fundamental to the occurrence of domestic violence[24,25] and that remnants of Chinese patriarchal values still persist, despite the rapid social and economic changes in Hong Kong and the trend towards a higher status and expanding role for women in recent decades[4]. Interestingly, in the current study, the lowest prevalence of IPV was observed in Hong Kong West where a higher educational attainment was reported by the participants and more of them were employed compared to the rest of the clusters. Does this imply that a higher status as brought about by better education and paid employment may protect women from IPV? However, it has also been argued that violence may increase, rather than decrease, as the status of women increases[4]. Hence, further study into the relationship between the increased status of women in society and the use of violence against women is warranted.

The geographical distribution of IPV in this survey shows variations across the clusters. However, logistic analysis found no direct effect of the different clusters on the risk of IPV when the socio-demographic factors of being in debt, needing financial assistance, unplanned pregnancy, and conflict with in-laws were controlled for. This finding thus challenges the popular belief that New Territories West (with Yuen Long and Tin Shui Wai as catchment areas) is the worst area in Hong Kong in terms of social problems including domestic violence. As seen in this study, at least four other clusters share levels of IPV prevalence similar to those of New Territories West. Therefore, prevention and intervention strategies should target not only New Territories West but also the other clusters with similar levels of IPV. Indeed, it may be argued that since Hong Kong is such a tiny place, a territory-wide rather than a district-based IPV prevention and intervention policy would be more appropriate.

This study further replicates previous findings[9,10,18,26] that pregnant women who reported experiencing partner abuse were more likely to have financial difficulties and unplanned pregnancy has also been identified previously as a risk factor for IPV by the researchers[6-8]. Unique to this study, however, is the identification of conflict with in-laws as one of the socio-demographic factors influencing IPV among pregnant women. Previously, the risk of such conflicts on IPV had only been identified among non-pregnant women in a local household survey[27]. The identification of the socio-economic influences on IPV has implications for policy-makers. For example, adequate resources should be allocated to address the socio-economic needs of families in need.

Although this study provides insight into the prevalence and geographical distribution of IPV among pregnant women in Hong Kong, it is not without its limitations. Even though the six clusters of hospitals in this study have provided valuable data on IPV, they do not represent the entire Hong Kong Special Administrative Region. Another limitation is that the periods of exposure to IPV are not equal (12 months prior to the survey and the period since becoming pregnant). Future studies should address the comparison of equivalent time periods, for example, by setting study questions that would elicit information for equal time periods. Moreover, given the sensitive nature of the topic, some women may be reluctant to disclose their experience of abuse. Thus, the true rates of IPV could be under-estimated. In the future, under-reporting may be addressed by using a longitudinal design and soliciting responses from women over a period of time.

The findings of this survey have implications for obstetric services in Hong Kong. In this paper, we have identified that IPV victimisation occurs during pregnancy and some women are more at risk than others. We have also reported elsewhere that the respondents

who experienced IPV in this survey were at a higher risk of postnatal depression[13]. Therefore, identification of IPV during pregnancy is important, particularly for those who are at the greatest risk.

Conclusion

This study found that IPV victimisation occurred among local pregnant women and that it was influenced by socio-demographic factors. This underscores the importance of screening women for IPV during pregnancy with special attention being given to those with known risk factors.

Acknowledgement

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