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THE RISK EVALUATION AND ASSOCIATED FACTORS FOR INTIMATE PARTNER VIOLENCE IN KAOHSIUNG, TAIWAN

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ABSTRACT

Purpose. A population-based study was conducted to assess the factors associated with Taiwan Intimate Partner Violence Danger Assessment (TIPVDA) scores among intimate partner violence victims in Kaohsiung, Taiwan.

Methods. The target groups of this study contained 9,603 intimate partner violence victims from the "National Domestic Violence and Sexual Assault and Children- Juvenile Protection Information System" between 2011 and 2015. The risk of TIPVDA was estimated.

Results. For the victims, 91.4% were females and more than 60.0% were aged 30-49 yrs. Using multiple linear regression, age (β = -0.317, p<0.001), occupation (β = -0.065, p<0.01), marriage status (unmarried vs. married, β =-0.61, p<0.001), sexual violence (yes vs. no, β =1.445, p<0.001), drinking issue (yes vs. no, β =1.239, p<0.001), psychological issue (yes vs. no, β =0.845, p<0.001), financial issue (yes vs. no, β =1.058, p<0.001), and relationship issue (yes vs. no, β =0.848, p<0.001) were significantly related to TIPVDA scores after adjustment for confounding factors.

Conclusions. In conclusion, our results found that older age, occupation, marriage status, sexual violence, drinking issue, psychological issue, financial issue, and relationship issue were the independent factors to affect the TIPVDA scores.

Introduction

Intimate partner violence is a major cause of death and disability on a worldwide scale (O'Doherty, 2014). The health effects are similar across the globe while the rates of intimate partner violence differ in low, middle, and high income regions (World Health Organization, 2013). Violence against females is characterized by intentional measures by the offender to control the actions of the victim. Intimate partner violence included acts of physical aggression, sexual coercion, psychological abuse and controlling behaviors and is now recognized as a serious global health problem (Lawoko, et al, 2014). Due to there is an immediate need to advance knowledge around the effective and appropriate preventions of intimate partner violence, which is responsible for significant negative health and well-being outcomes for victims, that is, creative approaches are being explored internationally-the systematic review also indicated a timely synthesis of applied theater interventions addressing primary, secondary, and tertiary preventive strategies for intimate partner violence (Heard, Mutch, Fitzgerald, 2017).

From the criminal prevention viewpoint, it is not only essential to be cognizant of the background risk of intimate partner violence regionally, but to explore the complete spectrum of demographic markers which may be related to elevated risk of intimate partner violence. Due to some uncertainty still exists as regards the associated risk factors for an elevated risk of intimate partner violence. Thus, to identify the associated factors for elevated risk of intimate partner violence, this study was conducted so as to attempt to explore the potential for condition-related risk difference, because it was considered that such difference might underscore important implications for the understanding of the overall situation among the victims of intimate partner violence in Taiwan.

Methods

Data resource and data collection

This study plans to evaluate risk assessment among intimate partner violence victims through "National Domestic Violence and Sexual Assault and Children-Juvenile

Protection Information System" between January, 1, 2011 and December 31, 2015.

The target groups of this study contained 9,603 intimate partner violence victims. The face-to-face interviews together with the provision of a structured questionnaire (questions pertained to demographic details and types of violence) was conducted at the time of the victims' visit. All procedures were performed in accordance with the guidelines of our institutional ethics committee and adhered to the tenets of the Declaration of Helsinki. All patients' information was anonymous.

Measurement instruments

The Taiwan Intimate Partner Violence Danger Assessment (TIPVDA) is a risk assessment instrument for intimate partner violence developed to assist front-line professionals with assessing victim's likelihood of experiencing lethal danger, and is also used to identify intervention strategies (Wang, 2015). The contents of TIPVDA included 15 items: 1. He has conducted violence which made you unable to breath. (For example: choking the neck, stifling the face, putting the head to the water, opening the gas, or other actions not listed.); 2. He has conducted violence to the children. (This does not include the general discipline). 3. When you were pregnant, he has beaten you. 4. He has threaten you with a knife, a gun, or other dangerous things, such as glass bottles, ironware, sticks, sulfuric acid, gasoline, etc. 5. He has threatened to kill you. 6. He has mentioned that he would die with you if you were to breakup, to divorce, or to apply for retraining order. Or, he has mentioned to die with you in a violent manner. 7. He has stalked, monitored, or viciously disturb you himself. Or, he has made others do such things to you for him. 8. He has abused you sexually, hurt you sexual organs. 9. Currently, he is drunk everyday or more than 4 days per week. If so, answer the following two questions. (1) He can not fall asleep without drinking. (2) He drinks when he wakes up. 10. He has conducted physical violence to people other than family members, such as friends, neighbors, colleagues, etc. 11. Currently, he has pressure from his poor economic status. 12. He has reacted intensely with verbal threats or physical violence when you sought for help externally, such as reporting to the police or social workers, going to the hospitals for injury diagnosis, or applying for retraining orders. 13. Currently, he suspects or thinks that there has been a third party involved in the relationship between you and him. 14. You believe that he may kill you. 15. In the past year, he has conducted even more serious violence to you than previously. In addition, the perception of victim about her current situation was also investigated (Wang, 2015). The TIPVDA range of total scores is 0 to 15, with higher scores indicating higher degrees of risk.

Data Analysis

In the univariate analysis, the independent t-test method or ANOVA was adopted to assess the differences of the mean value of TIPVDA. The multiple linear regression model was used to assess the independent effects of relevant factors on TIPVDA values after controlling for the covariates. The information gathered from the study subjects were also evaluated by calculating appropriate standard deviations. The level of significance was set at 0.05 for all statistical tests.

Results

Table 1 shows the results between demographic variables and TIPVADA scores for victims of intimate partner violence. The factors that were significantly related to TIPVADA score values

included sex (male (3.612.92) vs. female (4.403.01), t=7.40, p<0.001), age (<30 yrs (4.513.00) vs. 30-49 yrs (4.393.02) vs. ≧50 yrs (4.072.96), F=12.26, p<0.001), nationality (native not aboriginal (4.32±3.00) vs. native & aboriginal (5.04 ±3.29) vs. not native (4.25±2.94), F=6.65, p<0.01), occupation (unemployed (4.30±3.00) vs. business or service industry (4.75±2.98) vs. mining industry (4.43±3.00) vs. military, civil and teaching staff (4.05±2.98) vs. agriculture, forestry, fishery, animal husbandry and others (3.91±2.95), F=4.04, p<0.01), education level (high school below (4.43±3.04) vs. tertiary education (4.14±2.91), t=4.04, p<0.001), and marriage status (unmarried (4.78±3.09) vs. married (3.96±2.92), t=7.04, t<0.001).

As table 2 shows, high risk individual (yes (10.10±1.30) vs. no (3.66±2.36), t=133.37, p<0.001), financial violence (yes (5.18±3.34) vs. no (4.32±3.00), t=3.31, p<0.01), and sexual violence (yes (5.75±3.29) vs. no (4.32±3.01), t=4.06, p<0.001) significantly related to TIPVADA scores.

Table 3 shows that personality issue (yes (4.17±2.93) vs. no (4.41±3.05), t=3.78, p<0.001), drinking issue (yes (5.09±3.19) vs. no (4.24±2.97), t=8.22, p<0.001), financial issue (yes (4.90±3.04) vs. no (4.26±3.00), t=6.49, p<0.001), relationship issue (yes (4.75±2.98) vs. no (4.23±3.01), t=6.79, p<0.001), and offspring issue (yes (3.91±2.92) vs. no (4.36±3.01), t=3.58, p<0.001) significantly related to TIPVADA scores.

The effects of independent factors of TIPVDA values were examined by the multiple linear regression model. Table 4 shows that older age (β = -0.317, p<0.001), occupation (β = -0.065, p<0.01), marriage status (unmarried vs. married, β =-0.61, p<0.001), sexual violence (yes vs. no, β =1.445, p<0.001), drinking issue (yes vs. no, β =1.239, p<0.001), psychological issue (yes vs. no, β =0.845, p<0.001), financial issue (yes vs. no, β =1.058, p<0.001), and relationship issue (yes vs. no, β =0.848, p<0.001) were the independent factors to affect the TIPVDA scores after adjustment for confounding factors.

Discussion

Epidemiological aspects of risk of intimate partner violence

To the best of our knowledge, however, few evidence-based studies attempted to determine the risk and possible etiology of intimate partner violence for the victims' population of Taiwan, which also faced to the burden of threaten. In this study, negative relationship was revealed between victim's age and intimate partner violence. Previous studies indicated that young women are at relative higher risk of violence victimization, however, generalizable evidence on age at which abuse first occurs is lacking. Primary prevention and appropriate intervention for intimate partner violence should take place on average before first union before age 19 yrs, to capture the most relevant and at risk target population (Peterman, Bleck, & Palermo, 2015).

An association between intimate partner violence and occupation status was also noted in this study. Such a finding would also partly appear to be consistent with the results of other studies (Kotan, Kotan, Yalvaç, & Demir, 2017; Mishra, Patne, Tiwari, Srivastava, Gour, & Bansal, 2014). The prevalence of domestic violence was the most among housewives compared to other occupations (Mishra, et al, 2014). Babu and Kar (2009) also indicated that housewives are more prone to psychological and sexual violence than women victims involved in other occupations (Badu & Kar, 2009). In addition, our results have also showed a positive association between alcohol intake and TIPVDA scores. Other studies indicated that a wife of a man who drank alcohol increases the risk of experiencing physical and sexual violence (Mishra, et al, 2014; Kimuna, Djamba, Ciciurkaite, & Cherukuri, 2013). In India, several academic studies carried out globally have also revealed this phenomenon (Shrivastava & Shrivastava, 2013; Sinha, Mallik, Sanyal, Dasgupta, Pal, & Mukherjee, 2012; Stuart, et al, 2013; Tran, Tran, Wynter, Fisher, 2012).

The three levels of IPV are Level I abuse (pushing, shoving, grabbing, throwing objects to intimidate, or causing damage to property and pets), Level II abuse (kicking, biting, and slapping), and Level III abuse (use of a weapon, choking, or attempt to strangulate) (Ramadugu, Jayaram, Srivastava, Chatterjee, & Madhusudan, 2015). Intimate partner violence against women is not only a social problem, but also threatens women victims' lives and which prevents them from participating fully in social and cultural life. In our study, TIPVDA scores of the victims who have sexual violence, psychological issue, financial issue, or relationship issue were found to be higher. It was implied that intimate partner violence against women are often included emotional, physical, psychological, economic, and sexual violence (Sen & Bolsoy, 2017). Basically, intimate partner violence is preventable. though most psychologists, sociologists and criminologists are deeply concerned about the increase in intimate partner violence in public places, a person's possibility of being beaten is much greater at home than outside home (Kargar Jahromi, Jamali, Rahmanian Koshkaki, & Javadpour, 2015). Approach of the society is the most importance in preventing violence and abuse. From the preventive crime viewpoint, societies should pay more attention to against intimate partner violence cases through government intervention, legal arrangements, media, official and voluntary organizations, education institutions, and etc.

Perceived limitations

One major limitation involving this study population is that although our study only included first time reported cases to avoid the potential effects of misclassification, some of them may not have been newly developed. Secondly, the evidence derived from a cross-sectional study is generally lower in statistical quality because of potential biases linked to adjustment for confounding factors. Thirdly, a meticulous study design for confounding factors were used, but bias resulting from unknown confounders may still have affected the results. Fourthly, the potential selection bias may occur due to one area population studied. The potential influence on the risk estimated and the study-observed associated factors were inevitable. Nevertheless, we still retained sufficient statistical power to be able to effectively evaluate the associated factors for TIPVDA scores subsequent to adjustment for confounding factors given the relative large sample size. Finally, our measurements were conducted at only a single point in time and, by clear inference, would not be able to be used to reflect long-term exposure to various demographic or other aspects or factors, which might be important influencers of intimate partner violence. The solution to such a quandary would best be accomplished by conducting a number of prospective longitudinal analogous studies, the results of which would be expected to complement the cross-sectional findings of this study.

Conclusions

In conclusion, regardless of people's interpretations and acceptance of or objection to intimate partner violence, there is enough evidence to believe that intimate partner violence is not rare in Taiwanese families in Kaohsiung, Taiwan. Our results found that older age, occupation, marriage status, sexual violence, drinking issue, psychological issue, financial issue, and relationship issue were the independent factors to affect the TIPVDA scores.

Table 1 The association between demographic variables and TIPVADA scores (n=9603)

Variables	Frequency (%)	Means ±SD	T or F value
Sex			7.40***
Male	823(8.6)	3.61±2.92	
Female	8780(91.4)	4.40±3.01	
Age			12.26***
< 30	1249(13.0)	4.51±3.00	
30-49	6006(62.5)	4.39±3.02	
≧50	2348(24.5)	4.07±2.96	
Nationality			6.65**
Native not aboriginal	8878(92.4)	4.32±3.00	
Native & aboriginal	228(2.4)	5.04±3.29	
Not native	497(5.2)	4.25±2.94	
Occupation			23.23***
Unemployed	3374(35.1)	4.30±3.00	
Business or Service industry	3134(32.6)	4.75±2.98	

Mining industry	471(4.9)	4.43±3.00	
Military , Civil and Teaching Staff	613(6.5)	4.05±2.98	
Agriculture, Forestry, Fishery, Animal Husbandry and Others	2011(20.9)	3.91±2.95	
Education level			4.04***
High school below	7451(78.0)	4.43±3.04	
Tertiary education	2152(22.0)	4.14±2.91	
Marriage Status			7.04***
Unmarried	2561(26.7)	4.78±3.09	
Married	7042(73.3)	3.96±2.92	

* p<.05, ** p<.01, ***p<.001

Table 2 The univariate analysis of TIPVADA scores for violence type (n=9603)

Variables	Frequency (%)	Means ±SD	T value
High Risk Individual			133.37***
No	8601(89.6)	3.66±2.36	
Yes	1002(10.4)	10.10±1.30	
Physical Violence			0.24
No	1047(10.9)	4.34±3.01	
Yes	8556(89.1)	4.32±3.01	
Physiological Violence			1.70
No	5522(57.5)	4.30±3.03	
Yes	4081(42.5)	4.42±2.95	
Financial Violence			3.31**
No	9363(97.5)	4.32±3.00	
Yes	240(2.5)	5.18±3.34	
Sexual Violence			4.06***
No	9478(98.7)	4.32±3.01	
Yes	125(1.3)	5.75±3.29	

* p<.05, ** p<.01, ***p<.001

Table 3 The association between the reason of the intimate partner violence and TIPVADA scores (n=9603)

Variables	Frequency (%)	Means ±SD	T value
Personality Issue			3.78***
No	3736(38.9)	4.41±3.05	
Yes	5867(61.1)	4.17±2.93	
Drinking Issue			8.22***
No	7788(81.1)	4.24±2.97	
Yes	1815(18.9)	5.09±3.19	
Psychological Issue			3.19
No	8873(92.4)	4.31±3.00	
Yes	730(7.6)	4.79±3.20	
Financial Issue			6.49***
No	7798(81.2)	4.26±3.00	
Yes	1805(18.8)	4.90±3.04	
Relative Issue			2.58
No	8287(86.3)	4.35±3.01	
Yes	1316(13.7)	4.06±3.00	
Relationship Issue			6.79***
No	6328(65.9)	4.23±3.01	
Yes	3275(34.1)	4.75±2.98	
Offspring Issue			3.58***
No	8508(88.6)	4.36±3.01	
Yes	1095(11.4)	3.91±2.92	
Others			0.85
No	8028(83.6)	4.34±2.99	
Yes	1575(16.4)	4.24±3.24	

* p<.05, ** p<.01, ***p<.001

Table 4 Multiple linear regression on the associated factors related to t TIPVDA total score (n=9603)

Variables	β	SE	t value	95% CI
Constant	4.819	0.553	8.721	-
Sex(male vs. female)	0.293	0.197	1.488	[-0.09,0.68]
Age	-0.317	0.089	3.561***	[-0.49,-0.14]
Nationality	-0.065	0.123	0.527	[-0.30,0.18]
Occupation (yes vs. no)	-0.089	0.034	2.642**	[-0.15,-0.02]
Educational level (tertiary education vs. below high school)	-0.096	0.125	0.765	[-0.34,0.15]
Marriage status (unmarried vs. married)	-0.61	0.12	5.077***	[-0.85,-0.38]
Financial violence (yes vs. no)	0.653	0.335	1.951	[-0.01,1.31]
Sexual violence (yes vs. no)	1.445	0.392	3.687***	[-0.68,2.21]
Personality issue (yes vs. no)	0.049	0.109	0.449	[-0.16,0.26]
Drinking issue (yes vs. no)	1.239	0.14	8.839***	[0.96,1.51]
Psychological issue (yes vs. no)	0.845	0.195	4.345***	[0.46,1.23]
Financial issue (yes vs. no)	1.058	0.128	8.265***	[0.81,1.31]
Relative issue (yes vs. no)	0.073	0.156	0.468	[-0.23,0.38]
Relationship issue (yes vs. no)	0.848	0.114	7.43***	[0.63,1.072]
Offspring issue (yes vs. no)	0.008	0.156	0.054	[-0.30,0.31]

Adjusted R^2=0.09

* p<.05, ** p<.01, ***p<.001

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