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Suicidal Ideation as an Additional Risk for Violence Against Women Residing in Shelters: A Clinical Sample Analysis in Hong Kong

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Abstract

Intimate Partner Violence (IPV) is a pervasive public health issue strongly associated with adverse mental health outcomes, including suicidal ideation. Limited research has explored the additional risk profiles for suicidal ideation among shelter-seeking women in Hong Kong. This study analyzed data from a clinical sample of 597 women seeking services in three major shelters for battered women in Hong Kong between 2020 and 2024. Results showed that 48.1% reported suicidal ideation, with an alarming 21.3% classified as high-risk due to frequent suicidal thoughts. Logistic regression analyses identified several significant risk factors across victim, perpetrator, and family levels. Specifically, victims' lower educational attainment and histories of childhood abuse or neglect; perpetrators' jealousy, controlling behavior, and depressive symptoms; and family members' chronic illnesses and gambling addiction further contributed to elevated suicidal risk. These findings highlight the need for holistic, trauma-informed interventions to address individual, relational, and family-level factors in shelter settings. Future research should focus on developing strategies to enhance shelter services and effectively mitigate suicidal risk in this vulnerable population.

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Abstract

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Keywords: Suicide ideation, intimate partner violence, battered women shelters, violence against women, risk factors

Introduction

Prevalence and health consequences of IPV

Intimate Partner Violence (IPV) is one of the most pervasive human rights violations and critical public health concerns globally, affecting women across all cultural and economic backgrounds. [1] According to the World Health Organization, IPV is one of the most common forms of violence against women (VAW), encompassing physical, sexual, and emotional abuse, and

controlling behaviors perpetrated by current or former intimate partners. [2] The notion of VAW emphasizes its gender-based nature, meaning it is predominantly perpetrated by men against women. [3] Globally, approximately 30% of women aged 15 and older have experienced IPV during their lifetime, with considerable regional variation in its prevalence. [4] Specifically, IPV prevalence is lowest in East Asia (16.3%) and highest in Sub-Saharan Africa (65.64%). In Hong Kong, a comprehensive telephone survey revealed that one in five female respondents had experienced violence since the age of 16, and nearly one in ten had been assaulted by an intimate partner, with sexual violence reported more frequently than physical violence. [3] In clinical samples, a recent study in Hong Kong revealed that over half of the battered women using shelter services were burdened with the co-occurrence of IPV and child abuse, with almost a quarter enduring abuse for more than 10 years. [5]

The health consequences of IPV can be both acute and chronic. Physical and sexual violence often lead to immediate trauma, such as fractures, head, neck, facial or brain injuries, burns, and in severe cases, even death. [6] A recent systematic review explored the long-term effects of IPV on physical health outcomes, including exacerbated menopause symptoms, increased diabetes risk, higher rates of sexually transmitted infections, elevated engagement in risk-taking behaviors (e.g., abuse of drugs and alcohol), and developing chronic diseases and pain. [6] The psychological impact of IPV is equally detrimental, with research consistently demonstrating strong associations between IPV victimization and adverse mental health outcomes, including depression, anxiety, and posttraumatic stress disorder. [7] Of note, psychological abuse, though less visible than physical violence, may have a greater impact on victim's mental health by reinforcing patterns of control and eroding victims' mental well-being over time. [7]

IPV and Suicidal Ideation

Previous studies have consistently shown that IPV is associated with heightened risks of adverse mental health outcomes, in severe cases, suicidal thoughts and attempts. A comprehensive

study of university students found that approximately 26% of participants had experienced dating violence, with an alarming 32% reporting suicidal ideation. [8] Moreover, the relationship between intimate partner rape and suicidal ideation was mediated by posttraumatic stress disorder (PTSD) and depression. Similarly, Renner and Markward[9] collected data from a domestic violence shelter and found that 43% of the residents reported suicidal ideation. Risk factors span both past and present traumatic experiences, with significant predictors being childhood abuse (both sexual and physical), IPV severity, and recent IPV (lasting less than 12 months). These findings highlight the intersection of past and current trauma and their contribution to suicidal ideation among battered women in intimate relationships. The relationship between IPV and suicidal ideation extends to family dynamics, with previous research indicating higher IPV prevalence in families facing disadvantaged conditions, such as those with schizophrenic patients, disabled children, or members with chronic mental illness. [10-12]

While it may be tempting to assume a direct causal relationship between IPV and suicidal ideation or behavior, some researchers argue that the underlying mechanisms are more complicated than a unidirectional relationship. Devries et al[13] proposed a more nuanced framework that includes three potential pathways: (1) IPV exposure causes subsequent psychological symptoms and suicidal attempts; (2) pre-existing mental health conditions increase IPV vulnerability; and (3) shared risk factors for both IPV and psychological symptoms or suicidal attempts. Previous studies have found that women with severe mental illness are more susceptible to violent victimization than females without severe mental health issues. [14] Therefore, it is possible that psychological vulnerabilities might influence partner selection and relationship dynamics, potentially contributing to insecure attachment patterns along with lower relationship support, more conflict and maintaining an abusive relationship. [13, 15] Whichever is the direction of causality, battered women burdened with suicidal ideation increase the vulnerability of the victims.

Shelters for IPV Victims

The quality of established social networks, such as neighborhoods, influences quality of life and housing satisfaction, both of which are significant predictors of women's likelihood to seek help, [16] particularly when leaving home for shelter services. However, poverty remains one of the most commonly identified barriers for women in leaving and maintaining separation from an abusive partner, as relocation or paying additional rent poses another challenge to stability. [17] IPV has been identified as one of the leading causes of women's housing instability and homelessness. [18, 19] The decision to seek help often correlates with the characteristics of women experiencing IPV. Some battered women may rely on intimate resources, such as living with relatives or friends, who can provide a temporary arrangement. In contrast, women who seek formal services may have different characteristics or face more severe circumstances that compel them to actively pursue external support.

Battered women shelters are critical resources for victimized women, which can provide a safe location for separation and also allow for seeking assistance and making choices about future arrangements. [20] Yakubovich et al[17] systematically reviewed the effects of housing interventions on the physical, psychological, and economic wellbeing of women experiencing IPV. While shelters can provide crucial resources, not all victims seek or receive shelter services. For many women in abusive relationships, the decision to separate from the abusive partner is difficult due to various reasons, including fear of further violence, lack of economic independence, limited social support networks, concerns about children, fear of stigmatization, etc.. [21] Previous studies have suggested that help-seeking behavior increases with the severity and frequency of violence. [21] Women experiencing severe physical violence are more likely to leave home compared to those experiencing moderate levels of violence. In regard to education, single women with higher education levels are more likely to leave home compared to older, married women. [21] An important factor influencing a women's decision to seek help is whether she has children. Dufort et al[22] examined the characteristics of battered women regarding who sought shelter services versus those who did not. The results revealed

no significant differences in the level of violence exposure between help-seekers and non-help-seekers. However, help-seekers were more likely to have children and often had children living with the perpetrator. The perceived threat of violence spilling over to children and concerns about its negative effect were primary motivators for mothers to seek assistance. [23] The high co-occurrence of IPV and child abuse and neglect (CAN) further validates these concerns. A recent study of shelter services in Hong Kong provided compelling evidence of this intersection, revealing that nearly half of the women had reported both IPV and CAN against their children, and they were relatively young, unemployed, and were new immigrants in Hong Kong. [5]

Overall, seeking help for shelter services is hardly the first step in violence disclosure. When these victims eventually reach shelter services, they have already accumulated multiple risks other than IPV, such as health and mental health problems, [5] adjustment problems, [20] and even suicidal risk.

While the link between IPV and suicidal ideation is well-established in existing literature, less is known about the specific risk profiles of both victims and perpetrators. This population represents a particularly high-risk group due to their exposure to severe violence and the multiple stressors associated with shelter-seeking. This study aims to examine the prevalence and patterns of suicidal ideation among battered women using shelter services in Hong Kong. By examining potential protective mechanisms, this study seeks to contribute to the development of more effective and culturally appropriate support services for battered women in Hong Kong's shelter system. Specifically, we seek to: (1) examine the prevalence of suicidal ideation among battered women in shelters; and (2) identify key risk factors associated with increased suicidal ideation, including both abuse-related factors and psychosocial factors. Understanding these patterns is crucial for the early identification of women at additional risk for attempting suicide within this vulnerable population and can inform the development of targeted screening and intervention protocols for shelter services.

Methods

Research Site and Sample

This study utilized data collected from three out of five major refuge centers for battered women in Hong Kong, operated by Po Leung Kuk, a local charitable organization established to protect women and children. These centers provide temporary accommodations, conduct risk assessments, and offer professional services to support women in managing emotional distress, developing safety plans, and mitigating the impact of family violence on their children. Risk assessment records were obtained for 597 women seeking help or residing in the refuge centers between 2020 and 2024. Ethical approval for the study was granted by the Ethics Committee of the authors' affiliated university.

Measures

Demographic Characteristics and Health Conditions

Participants provided demographic information about themselves, their perpetrators, and their children. This included their age, educational attainment (primary or below, secondary, or tertiary and above), employment status (employed/unemployed), and marital status (married, cohabiting, divorced or separated). Health-related information included the presence of chronic illnesses, diagnosed mental illnesses, and physical or emotional problems, such as insomnia, headaches, muscle pain, loss of appetite, physical fatigue, dependence on substances (medication or alcohol), and panic, fear, or mental tension. Mental health indicators included symptoms such as low mood, restlessness, or other reported issues.

Suicidal Ideation

Participants provided information on suicidal ideation and related concerns. Firstly, they reported whether they had suicidal thoughts in the preceding-year, using a four-point scale (1 = never, 2 = rarely, 3 = occasionally, 4 = frequently). Participants who selected "never" or "rarely" were classified as "low risk suicidal ideation", while those who selected "occasionally" or "frequently were classified as "high risk suicidal ideation". Additional items included whether they

had considered specific ways to commit suicide, whether they had previously attempted suicide, whether they had thought about committing suicide together with their children or family, and whether they were worried about who would take care of their children or family after their death. These items were employed in Chinese studies related to suicide and partner violence. [8, 24]

Risk Assessment

To assess the risk levels of battered women in the refuge centers, social workers were trained to conduct a risk assessment using a previously validated checklist (Chan, 2007; Chan et al., 2023). The assessment focused on the context of the victimizations, factors related to their experiences of victimization, the behavior of the perpetrator, and their family circumstances. Information was collected on the relationship between the participant and the perpetrator (spouse or former spouse), the duration of the violence, and the frequency of physical assault in the preceding year of the study. They were asked whether they were afraid of the perpetrator, whether the perpetrator had a way to find them, and whether they were currently being harassed by the perpetrator.

Family disadvantaged conditions were assessed to identify vulnerabilities that might exacerbate risk, including the presence of disabilities, mental illness, chronic illness, low income or social assistance, gambling, and unemployment. Perpetrator's history of violence (childhood abuse or neglect, witnessed parental violence in childhood), difficulty in stress management, jealousy, controlling behavior, and symptoms of depression.

Finally, social workers assessed the overall severity of the situation, categorizing it as severe, moderate, or mild. While more subjective than actuarial assessments, this clinical risk assessment is practical and reliable for guiding risk management, with interrater reliability exceeding 98%.[5]

Partner Violence

The female respondents reported their IPV victimization using the items modified from the Chinese version of the Abuse Assessment Screen (AAS). [25] The items, which assessed participants' experiences of physical assault, psychological aggression, sexual coercion, and fear due to IPV, were

rated on a yes/no scale.[25]

Statistical Analysis

Descriptive analyses were conducted to examine the demographic characteristics, victimization experiences, and associated risk assessment factors among battered women and their family members. Comparisons were made between women who reported low and high levels of risk for suicidal ideation. Chi-square tests were used for categorical variables, and *t*-tests were performed for continuous variables to assess significant differences between the two groups.

Logistic regression analyses were conducted to explore the factors associated with low and high levels of risk for suicidal ideation. Both crude and adjusted odds ratios (ORs) with 95% confidence intervals (CIs) were calculated. The regression models included demographic factors (e.g., educational attainment and marital status), perpetrator characteristics (e.g., history of childhood abuse, jealousy, and symptoms of depression), participant health conditions (e.g., chronic illnesses and mental health diagnoses), and family-related factors (e.g., family members with chronic illness, mental illness, or gambling addiction). Statistical significance was set at $p < 0.05$. All analyses were performed using the latest version of SPSS Statistics 29.

Results

Demographic Characteristics and Health Conditions

Table 1 presents the demographic characteristics and health conditions of 597 service users. Among the 597 battered women seeking shelter services, 78.7% (n = 470) reported low-risk suicidal ideation in the preceding year, while 21.3% (n = 127) experienced high-risk suicidal ideation during the same period. This means that over one-fifth of the women were at a significantly heightened risk of suicide, reflecting an alarming additional burden on top of the trauma associated with their abuse. 287 (48.1%) of the participants reported suicidal ideation at some point in their lifetime, of which 82 (28.6%) reported having thought about ways to commit suicide, 16 (5.6%) reported attempting suicide, 12 (4.2%) indicated they had thought about committing suicide together with their children

or family, and 109 participants (38.0%) expressed worry about who would take care of their children or family after their death. Among the above items, the high-risk suicidal ideation group reported significantly higher proportions.

Table 1. Demographic characteristics and health conditions of victims

	All (n=597)		Low risk suicidal ideation (preceding year) (n=470)		High risk suicidal ideation (preceding year) (n=127)		t-test/Chi^2
	n	%	n	%	n	%	
Suicide ideation (lifetime)	287	48.1%	160	34.0%	127	100%	174.245***
Thought about ways to commit suicide	82	28.6%	11	6.9%	71	55.9%	
Attempted suicide	16	5.6%	4	2.5%	12	9.4%	
Thought about committing suicide together with children/family	12	4.2%	3	1.9%	9	7.1%	
Worried about who would take care of children/family after death	109	38.0%	40	25.0%	69	54.3%	
Age (M,SD)	40.7 (12.1)		40.6 (11.7)		40.9 (13.5)		-0.282
18 - 30	98	16.4%	71	15.1%	27	21.3%	
31- 40	219	36.7%	183	38.9%	36	28.3%	
41- 50	160	26.8%	125	26.6%	35	27.6%	
51 - 60	66	11.1%	54	11.5%	12	9.4%	
> 60	42	7.0%	28	6.0%	14	11.0%	
No information	12	2.0%	9	1.9%	3	2.4%	
Educational attainment							10.298*
Primary or below	77	12.9%	54	11.5%	23	18.1%	
Secondary	407	68.2%	319	67.9%	88	69.3%	
Tertiary or above	111	18.6%	96	20.4%	15	11.8%	
No information	2	0.3%	1	0.2%	1	0.8%	
Unemployed	366	61.3%	287	61.1%	79	62.2%	0.095
Marital status							5.451*
Married	409	68.5%	332	70.6%	77	60.6%	
Cohabited	61	10.2%	52	11.1%	9	7.1%	
Divorced/Separated	46	7.7%	31	6.6%	15	11.8%	
No information	81	13.6%	55	11.7%	26	20.5%	
Health conditions							
Chronic illness	138	23.1%	95	20.2%	43	33.9%	10.475**
Diagnosed mental illness	132	22.1%	86	18.3%	46	36.2%	18.649***

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Physical or emotional problems							
Any type	408	68.3%	295	62.8%	113	89.0%	31.747***
Insomnia	213	35.7%	146	31.1%	67	52.8%	17.131***
Headache	136	22.8%	88	18.7%	48	37.8%	17.912***
Muscle pain	56	9.4%	38	8.1%	18	14.2%	3.589
Loss of appetite	87	14.6%	56	11.9%	31	24.4%	10.818**
Fatigue	99	16.6%	70	14.9%	29	22.8%	3.538
Substance abuse (drug or alcohol)	26	4.4%	16	3.4%	10	7.9%	4.197*
Panic/fear/nervous	186	31.2%	136	28.9%	50	39.4%	3.582
Feeling depressed	211	35.3%	141	30.0%	70	55.1%	23.699***
Anxiety	62	10.4%	43	9.1%	19	15.0%	2.905
General emotional problem	85	14.2%	58	12.3%	27	21.3%	5.349*

Note. * p<0.05, **p<0.01, ***p<0.001.

We further compared the characteristics of the low and high-risk suicidal ideation groups. The high-risk group had a lower education level, higher divorce rate, poorer physical health (such as chronic illness, insomnia, headache, and loss of appetite), poorer mental health (such as mental illness, feeling depressed, and emotional problem), and higher rates of substance abuse.

As shown in Table 2, most participants reported a high prevalence of physical violence, injuries, forced sex, and assessments by social workers indicating moderate to high risks (over 90%), which was consistent across both the low- and high- risk suicidal ideation groups. Threats were reported more often in the high-risk group (78.7% vs. 68.5%).

Table 2. History of violence

	All (n=597)		Low risk suicidal ideation (preceding year) (n=470)		High risk suicidal ideation (preceding year) (n=127)		t-test/ Chi^2
	n	%	n	%	n	%	
Perpetrator of physical assault							

Partner	448	75.0%	368	78.3%	80	63.0%	
Ex-Partner	28	4.7%	18	3.8%	10	7.9%	
Others	61	11.4%	41	9.6%	20	18.2%	
Frequence of physical assault (preceding-year)	8.7	26.2	9.2	28.1	6.5	16.8	0.884
Duration of violence (year)	7.3		7.1		8.0		-0.929
< 5 years	239	44.6%	200	46.9%	39	35.5%	
5 - 10 years	129	24.1%	97	22.8%	32	29.1%	
> 10 years	125	23.3%	94	22.1%	31	28.2%	
No information	44	8.0%	36	8.2%	8	7.3%	
Injuries							4.970
Minor (Scratches/Mild bruises/ Swelling)	236	44.0%	184	43.2%	52	47.3%	
Severe (Fractures/Knife wounds/Severe bruises/Large wounds/Heavy bleeding/Coma)	51	9.5%	46	10.8%	5	4.5%	
Permanent Damage (Blindness/ Hearing loss/ Disfigurement/Chronic pain)	4	0.7%	4	0.9%	0	0.0%	
No injury	246	45.9%	193	45.3%	53	48.2%	
Forced sex	129	21.6%	95	20.2%	34	26.8%	2.997
Threat	422	70.7%	322	68.5%	100	78.7%	4.916*
Afraid of the perpetrator	451	75.5%	351	74.7%	100	78.7%	0.583
Currently being harassed by the perpetrator	128	21.4%	102	21.7%	26	20.5%	0.059
Risk levels assessed by social worker							
Severe	511	85.6%	402	85.5%	109	85.8%	0.031
Moderate	29	4.9%	25	5.3%	4	3.1%	1.004
Mild	55	9.2%	42	8.9%	13	10.2%	0.213

Note. * $p<0.05$.

Table 3 shows perpetrators' characteristics and family factors that consistently influence the suicidal ideation of the participants. Women in the high-risk group reported that more perpetrators had histories of childhood abuse or neglect (25.2% vs. 17.2%) and had witnessed parental violence (21.3% vs. 13.8%). In the high-risk group, perpetrators had more issues with stress management,

jealousy, controlling behavior, and symptoms of depression.

Table 3. Characteristics of perpetrators and families

	All (n=597)		Low risk suicidal ideation (preceding year) (n=470)		High risk suicidal ideation (preceding year) (n=127)		t-test/ Chi^2
	n	%	n	%	n	%	
Perpetrator's characteristics							
Childhood abuse or neglect	113	18.9%	81	17.2%	32	25.2%	5.475*
Witnessed parental violence in childhood	92	15.4%	65	13.8%	27	21.3%	4.810*
Difficulty in stress management	407	68.2%	318	67.7%	89	70.1%	1.682
Jealousy	260	43.6%	191	40.6%	69	54.3%	8.657**
Controlling partner	365	61.1%	285	60.6%	80	63.0%	1.227
Symptoms of depression	108	18.1%	76	16.2%	32	25.2%	9.012**
Family disadvantages							
Disability	52	8.7%	34	7.2%	18	14.2%	5.970*
Mental illness	190	31.8%	135	28.7%	55	43.3%	8.139**
Chronic illness	206	34.5%	149	31.7%	57	44.9%	7.787**
Indebtedness	170	28.5%	123	26.2%	47	37.0%	5.738*
Gambling	116	19.4%	79	16.8%	37	29.1%	8.540**

Note. * p<0.05, **p<0.01.

Family disadvantages are common family factors affecting the suicidal ideation of participants. Those in the high-risk group reported higher rates of family members with disabilities (14.2% vs. 7.2%), mental illnesses (43.3% vs. 28.7%), chronic illnesses (44.9% vs. 31.7%), indebtedness (37% vs. 26.2%), and gambling problems (29.1% vs. 16.8%).

Regression Analyses of Risk Factors Associated with Suicidal Ideation

Table 4 provides a summary of the risk factors for high-risk suicidal ideation. Among the victims' characteristics, lower education attainment (aOR = 0.546), being divorced or separated

(aOR = 2.380), having a chronic illness (aOR = 2.206) and mental illness (aOR = 2.079) were significant factors. Perpetrators' characteristics and family factors consistently influenced the suicidal ideation of participants. After controlling for demographic characteristics, perpetrators' characteristics including histories of childhood abuse or neglect (aOR = 2.519), difficulty in stress management (aOR = 1.878), jealousy (aOR = 1.678), controlling partner (aOR = 1.724), and symptoms of depression (aOR = 2.134) were significantly associated with an increased likelihood of participants being in the high-risk group. In terms of family factors, having a family member with a mental illness (aOR = 1.802), chronic illness (aOR = 1.676), and gambling problem (aOR = 1.711) significantly increased the participants being in the high-risk group.

Table 4. Regression analysis of risk factors on suicidal ideation

	High risk suicidal ideation	
	Crude OR	Adjusted OR
Demographics		
Age, mean (SD)	1.002 (0.986, 1.019)	0.999 (0.978, 1.020)
Educational attainment	0.659* (0.470, 0.923)	0.546** (0.356, 0.837)
Unemployed (ref: employed)	1.066 (0.710, 1.600)	0.869 (0.546, 1.384)
Divorced/Separated (ref: married/cohabited)	2.161* (1.117, 4.177)	2.380* (1.209, 4.685)
Victim's conditions		
Chronic illness	2.021** (1.313, 3.109)	2.206** (1.317, 3.693)
Diagnosed mental illness	2.536*** (1.648, 3.901)	2.079** (1.236, 3.497)
Perpetrator's characteristics		
Childhood abuse or neglect	1.823* (1.098, 3.028)	2.519** (1.384, 4.585)
Witnessed parental violence in childhood	1.815* (1.061, 3.107)	1.679 (0.881, 3.201)

Difficulty in stress management	1.413 (0.837, 2.385)	1.878* (1.004, 3.510)
Jealousy	1.880** (1.230, 2.873)	1.678* (1.038, 2.714)
Controlling partner	1.283 (0.825, 1.996)	1.724* (1.019, 2.918)
Symptoms of depression	2.112** (1.288, 3.464)	2.134** (1.202, 3.788)
Family disadvantages		
Disability	2.108* (1.146, 3.876)	2.065 (0.990, 4.306)
Mental illness	1.824** (1.203, 2.764)	1.802* (1.113, 2.918)
Chronic illness	1.766** (1.181, 2.642)	1.676* (1.019, 2.756)
Indebtedness	1.682* (1.096, 2.582)	1.643 (1.000, 2.702)
Gambling	1.963** (1.242, 3.100)	1.711* (1.009, 2.901)

Note. * p<0.05, **p<0.01, ***p<0.001.

Adjustment by demographics.

Discussion

This study provides critical insights into the prevalence and risk factors of suicidal ideation among a clinical sample of battered women using shelter services in Hong Kong, a population characterized by prolonged exposure to IPV. Battered women tolerate violence for extended periods before seeking help, often due to societal norms, stigma, and family obligation. [5] As shown in our study, by the time they enter shelters, the accumulated risk levels are alarmingly high, with 90% of participants assessed as moderate to high risk for harm, 21.3% of battered women belonged to the high-risk suicidal ideation group, which is a particularly concerning statistic given the additional risks posed by IPV and suicidal ideation. Moreover, the severity of suicidal ideation is further

emphasized by the finding that 28.6% of participants had contemplated specific ways to commit suicide. While staying in a shelter may provide temporary protection from the perpetrator's violence, it does not eliminate the risk of suicide. [8, 26, 27] This highlights a critical gap in the perception of safety within shelters, underscoring the need for caution in risk assessment and management, not only for IPV-related violence but also for suicidal risk.

Our study identified a range of factors associated with high-risk suicidal ideation, including victim characteristics, perpetrator behaviors, and family disadvantages. Many women in the high-risk group reported chronic illnesses and psychological distress, including insomnia, headaches, and loss of appetite—manifestations of severe psychological and physical strain. The high prevalence of insomnia is particularly noteworthy, as it has been identified as a significant predictor of suicidal ideation and suicide death. [28] We also found that histories of childhood abuse or neglect were prevalent among these women, suggesting that early trauma contributes to psychological vulnerability and heightened suicidal risk. Childhood adversities may lower the stress threshold, making minor stressors trigger heightened emotional reactions that potentially escalate to violence toward partners. [29] This finding suggests that early traumatic experiences contribute to the psychological vulnerability, increasing suicide risks among battered women. [30] Shelter services may need to incorporate trauma-informed care approaches in daily practices and screening for childhood trauma history.

Regarding perpetrator characteristics, we found that controlling behavior, jealousy, and depression as significant risk factors for victims' suicidal ideation. This aligns with previous research underscoring the effect of psychological abuse and coercive control may have more detrimental impacts on suicidal ideation than physical violence. [7, 31] Behaviors such as threats and scolding likely evoke greater feelings of helplessness and hopelessness, leading victims to consider suicide as a means of escaping the relationship. [31] Specifically, psychological control may influence suicidal ideation by dominating and intimidating the victim. While physical separation from perpetrators in

shelters may reduce some direct impacts of IPV, many women continued to experience threats, harassment, and emotional abuse through phone calls or other forms of contact.

Family-related burdens, such as caregiving responsibilities for family members with chronic illness or mental illness, often remain or even intensify while women are in shelters. These unrelieved burdens can increase stress and feelings of hopelessness, further contributing to suicidal ideation. This is in line with previous research demonstrating that a higher sense of responsibility to family and child-related concerns is associated with lower suicidal ideation in patients with depression disorders. [32] Basically, a strong sense of responsibility for one's family can lead individuals to reflect on their situation, potentially reappraisals of attempting suicide. [33] The caregiving roles required by cultural norms in Asian societies, such as the filial piety norms requiring caregivers to care for elderly family members, place significant emotional and financial strain on women, [34] particularly in families with disabilities, gambling addiction, or unemployment. These caregiving roles often require career sacrifices and financial accountability, further escalating the perceived caregiver burden. [35, 36] Our findings underscore the importance of considering the broader family context in risk assessments and interventions.

Our findings highlighted several protective mechanisms within shelter services that may help mitigate suicide risk among IPV victims. In general, housing interventions like shelter services play a critical role in ensuring the physical safety and sense of stability of IPV victims. [37] Additionally, counselling services and peer support within shelters appear to create a supportive environment that may buffer against suicidal ideation. The implementation of trauma-informed approaches, such as the development of support networks and safety plans, are likely contributed to residents' mental well-being. These findings align with previous research demonstrating the effectiveness of shelter-based interventions in reducing mental health symptoms among IPV victims. [17]

Several limitations should be considered when interpreting the findings of this study. First, the clinical sample with relatively small sample size and the non-representative nature may limit the

generalizability of the findings to the broader population of IPV victims. Second, the cross-sectional design prevents us from making causal inferences about the relationship between risk factors and suicidal ideation or assessing these relationships over time. Third, this study primarily relied on self-report data, which might have reporting biases, particularly given the sensitive nature of the topic. Future research can address these limitations through longitudinal studies to track the development of suicidal ideation over time and examine the long-term retention of protective effects from shelter services. Future studies would also benefit from examining additional protective factors, considering cultural and family support systems, which may be particularly relevant to Chinese cultures.

Despite these limitations, this study provides insights into the relationship between IPV and suicide risk among shelter-seeking women in Hong Kong. The findings suggest several promising directions for enhancing shelter services and suicide prevention efforts for this vulnerable population. From a clinical perspective, our results underscore the need for more holistic screening protocols in shelter settings. These protocols should assess both individual- and family-level risk factors, such as family conditions, histories of childhood trauma, perpetrator characteristics. Furthermore, the strong association between health conditions and suicide risk highlights the importance of developing targeted health services within shelters. From a policy perspective, the protective effect of education found in this study suggests the need for enhancing education and skill-building programs in shelters. Funding should be directed to address the essential needs of battered women, particularly in areas such as healthcare, family caregiving, education, and resilience-building. Rather than focusing solely on individual-level risk factors, our results indicate that effective intervention strategies should adopt a holistic approach that addresses individual, relationship, and family-level factors altogether. Future practice and research should work toward developing integrated intervention programs tailored to shelter settings. Understanding the risk mechanisms at play can lead to more effective suicide prevention strategies for this vulnerable population.

List of Abbreviations

Abbreviation	Definition
IPV	Intimate Partner Violence
VAW	Violence Against Women
CAN	Child abuse and neglect

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