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Telephone intervention to improve the mental health of community-dwelling women abused by their intimate partners: a randomised controlled trial

Key Messages

1. Intimate partner violence (IPV) is a prevalent public health problem and may go undetected in the community. Depression is one of its most common mental health sequelae.
2. Screening for IPV in the community is important for early detection and timely intervention.
3. An advocacy intervention comprising empowerment and telephone social support was effective in reducing depression and psychological aggression as well as improving perceived social support and safety-promoting behaviour for at least 6 months following the intervention.
4. Participants in IPV advocacy trials should be followed up for years, rather than weeks or months, in order to assess the long-term benefits of the intervention.

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Introduction

According to the World Health Organization, intimate partner violence (IPV) is a global public health problem. It has long-term, negative health consequences for survivors, even after the abuse has ended. Depression is one of its most common mental health sequelae. In the US, a meta-analysis of 18 studies has reported a weighted mean prevalence of depression of 47.6% among abused women,[1] which is much higher than the lifetime rates of 10.2% to 21.3% in the general populations of women. Such an association of depression and IPV has also been found among Chinese women in Hong Kong.

In a systematic review of 10 randomised controlled trials of advocacy programmes for abused women,[2] intensive advocacy interventions (≥12 hours) for women recruited in domestic violence shelters may reduce physical abuse, but its beneficial effects on the women's mental health and quality of life are not yet known. Also, there is insufficient evidence to show whether less intensive interventions (<12 hours) for women who still live with the perpetrators are effective.[2] This study aimed to test the effectiveness of an advocacy intervention for women survivors of IPV in a community setting.

Methods

Between December 2006 and June 2009, 200 community-dwelling, abused Chinese women were randomly assigned to the intervention (n=100) or control (n=100) group. The former group received a 12-week advocacy intervention, whereas the latter received usual community services.

The advocacy intervention consisted of empowerment and telephone social support, based on the Dutton's empowerment model[3] and Cohen's Social Support Theory.[4] The former component was provided at the beginning of the intervention and took about 30 minutes. It included protection and enhanced choice-making and problem-solving skills. The latter was provided via 12 scheduled weekly telephone calls and 24-hour access to a hotline. Women in the control group received the usual community services provided by the community centre including health, social, educational, and recreational services.

Data were collected at baseline and the 3 and 9-month follow-up. No subjects were lost to follow up. The instruments used included the Chinese Abuse Assessment Screen, the Beck Depression Inventory version II (range, 0-63; higher scores indicate higher levels of depression), the Interpersonal Support Evaluation List (range, 0-36; higher scores indicate higher perceived social support), the Short-Form Health Survey (range, 0-100; higher scores indicate better health-related quality of life), the revised Conflict Tactics Scales (range, 0-6 for each item; higher scores indicate higher levels of IPV), the Safety-Promoting Behaviour Checklist, and the Utilisation of Health Services Questionnaire. Depression was the primary outcome measure. The secondary outcome measures were perceived social support, health-related quality of life, IPV, safety-promoting behaviours, and utilisation of health services.

Results

At baseline, the intervention and control groups were comparable in all respects, except that significantly more women in the intervention than control group received comprehensive social security assistance (CSSA) [33% vs 9%, P<0.001, Table 1]. The instrument scores of both groups were compared at baseline and after intervention (Table 2).

Depression

The Beck Depression Inventory version II scores of both groups decreased significantly from month 3 to month 9 (mean, -8.14; 95% CI, -9.72 to -6.57; P<0.001). The decrease was significantly greater in the intervention than control group (mean, -2.66; 95% CI, -5.06 to -0.26; P=0.031), and the effect was sustained even after adjusting for the baseline difference (in CSSA) and removing an outlier (mean, -2.80; 95% CI, -5.32 to -0.28; P=0.030).

Table 1. Demographics of study participants at baseline*

Demographics	Intervention (n=100)	Control (n=100)	P value
Subject age (years)	38.18±7.61	37.99±6.79	0.872
Partner age (years)	45.2±9.81	44.08±9.07	0.543
Age difference (partner - subject) [years]	6.82±5.73	6.35±6.77	0.255
Education level			0.558
No education or primary education	25 (25)	30 (30)	
Middle or high school	71 (71)	65 (65)	
Tertiary or above	4 (4)	5 (5)	
Place of Birth			0.391
Hong Kong	33 (33)	43 (43)	
Mainland China	65 (65)	56 (56)	
Other	2 (2)	1 (1)	
Years of living in Hong Kong			0.474
<1	1 (1)	2 (2)	
1-2	9 (9)	7 (7)	
3-6	11 (33)	16 (16)	
≥7 (permanent resident status)	65 (65)	73 (73)	
Two-way permit (temporary resident status)	1 (1)	0 (0)	
Refused to answer	1 (1)	2 (2)	
Marital status			0.099
Single	5 (5)	3 (3)	
Married or cohabited	88 (88)	91 (91)	
Divorced or separated	7 (7)	6 (6)	
No. of children			0.647
0-1	46 (46)	51 (51)	
2-3	51 (51)	44 (44)	
>3	3 (3)	5 (5)	
History of chronic illness	15 (15)	11 (11)	0.531
Partner with chronic illness	11(11)	8 (8)	0.629
In paid job	30 (30)	32 (32)	0.886
Partner with paid job	76 (76)	78 (78)	0.882
Financial hardship reported	72 (72)	73 (73)	0.865
Receiving comprehensive social security assistance	33 (33)	9 (9)	<0.001
In need of financial support	65 (65)	58 (58)	0.391

* Data are presented as mean±SD or No. (%)

Table 2. Instrument scores of the intervention and control groups at baseline, month 3, and month 9

Instrument	Mean±SD score						Estimate (95% CI) adjusted between-group difference†	P value
	Intervention (n=100)			Control (n=100)				
	Baseline*	Month 3	Month 9	Baseline*	Month 3	Month 9		
Beck Depression Inventory version II	37.88±14.90	24.38±14.45	16.10±10.69	39.33±15.60	26.25±12.70	18.25±11.40	-2.66 (-5.06, -0.26)	0.031
Interpersonal Support Evaluation List	7.13±8.42	15.94±8.19	21.09±7.02	6.73±7.92	13.51±8.51	19.49±7.20	2.18 (0.48, 3.89)	0.013
Short-Form Health Survey								
Physical Component Summary score	43.28±7.67	42.37±7.22	44.35±7.64	43.32±7.59	42.39±7.37	43.55±7.30	0.37 (-0.91, 1.65)	0.576
Mental Component Summary score	26.58±7.64	34.79±8.87	38.26±8.56	25.44±7.66	34.39±8.26	37.89±8.08	0.80 (-1.16, 2.77)	0.424
Revised Conflict Tactics Scales								
Psychological aggression	18.54±10.20	23.67±15.89	10.07±5.91	18.95±10.36	20.84±10.45	12.11±8.57	-1.87 (-3.34, -0.40)	0.014
Physical assault	1.68±4.21	1.27±3.22	0.23±1.27	1.55±4.10	3.21±6.07	0.45±1.74	-0.35 (-0.80, 0.10)	0.130
Sexual coercion	0.68±3.32	0.33±1.29	0.03±0.30	0.14±0.73	1.11±2.70	0.14±0.75	-0.02 (-0.12, 0.09)	0.602

* No baseline difference (P≥0.125)

† Estimated between-group difference (intervention - control) from month 3 to month 9 after adjusting for baseline values

Perceived social support

The Interpersonal Support Evaluation List scores of both groups increased significantly from month 3 to month 9 (mean, 5.56, 95% CI, 4.66-6.47; P<0.001). The increase was significantly greater in the intervention than control group (mean, 2.18; 95% CI, 0.48-3.89; P=0.013), and the effect was sustained even after adjusting for the baseline difference (in CSSA) and removing an outlier (mean, 2.23; 95% CI, 0.43-4.03; P=0.016).

Health-related quality of life

No significant between-group differences were noted from month 3 to month 9 before and after adjusting for the baseline difference (in CSSA) and removing an outlier (Physical Component Summary (PCS) score: mean, 0.37 vs 0.30; 95% CI, -0.91-1.65 vs -1.04-1.64; P=0.576 vs P=0.665; Mental Component Summary (MCS) score: mean, 0.80 vs 1.13; 95% CI, -1.16-2.77 vs -0.92-3.18; P=0.424 vs P=0.282).

Intimate partner violence

Overall IPV in both groups decreased significantly from month 3 to month 9 (mean, -0.43; 95% CI, -0.81 to -0.05; P=0.027). The decrease in psychological aggression was significantly greater in the intervention than control group (mean, -1.87; 95% CI, -3.34 to -0.4; P=0.014). No significant between-group differences from month 3 to month 9 were noted for physical assault (mean, -0.35; 95% CI, -0.80-0.10; P=0.130) or sexual coercion (mean, -0.05; 95% CI, -0.25-0.15; P=0.602). Similar effects were noted after adjusting for the baseline difference (in CSSA) and removing an outlier of psychological aggression (mean, -2.34; 95% CI, -3.87 to -0.81; P=0.003), physical assault (mean, -0.44; 95% CI, -0.91-0.03; P=0.067), or sexual coercion (mean, -0.04; 95% CI, -0.21-0.13; P=0.649).

Safety-promoting behaviours

The number of safety-promoting behaviours increased significantly from month 3 to month 9 (mean, 0.54; 95% CI, 0.10-0.97; P=0.016). The increase was significantly greater in the intervention than control group at month 3 (mean, 3.80; 95% CI, 2.84-4.77; P<0.001), and the effect was significantly more pronounced at month 9 (mean, 4.72; 95% CI, 3.76-5.69; P<0.001). The effects were sustained even after adjusting for the baseline difference (in CSSA) and removing an outlier of month 3 (mean, 3.70; 95% CI, 2.72-4.68; P<0.001) or month 9 (mean, 4.64; 95% CI, 3.65-5.62; P<0.001).

Utilisation of health services

No significant between-group differences were noted from month 3 to month 9 before and after adjusting for the baseline difference (in CSSA) [mean, -0.02; 95% CI, -0.12-0.09; P=0.749].

Discussion

The abused women reported significantly more reduction in depression and psychological aggression, and more improvement in perceived social support and the use of safety-promoting behaviours after receiving the advocacy intervention than usual community services. The advocacy intervention was also significantly more useful in helping women to improve their relationship and handle conflicts with their intimate partners. However, there was no evidence that the advocacy intervention resulted in more significant improvement in health-related quality of life or reduction in utilisation of health services.

In our study, nearly all the women had not disclosed their IPV experience to or had not sought help from social or health services professionals. This suggested that violence against women may remain hidden as long as no direct questions were asked. Yet, in light of the severe levels of depression reported at baseline, the women were clearly in need of help. This study raised public awareness of the health consequneces of IPV and screening for IPV in the community setting. Although only usual community services were provided to the women in the control group, there was improvement in their depression. It is probable that just abuse screening by itself may have a beneficial effect for abused women.[2]

There is inconsistent evidence as to whether advocacy intervention improves social support in the short term for abused women who have actively sought help.[2] In our study, women who received the advocacy intervention reported more improvement in perceived social support. By helping the women to access services and by non-judgmental listening, the advocacy intervention may have convinced the women that help was available should they need it. During the weekly telephone sessions, most women expressed needs related to parenting problems rather than couple relationship problems. This suggested that Asian couples tend to frame their relationship issues in the context of raising children. It is therefore important not to overlook the need to address parenting problems when providing intervention to Chinese women living in abusive intimate relationships.

Our study showed that a less intensive advocacy intervention (and usual community services) also appeared to improve safety-promoting behaviours for abused women who were not actively seeking legal protection. Exposure to the safety-promoting behaviours checklist during the repeated-measurement process may have an effect similar to that of the intervention. This has implications for practice.

The low PCS and MCS scores of the abused women support previous findings that IPV adversely affects health-related quality of life of abused women by lowering their physical performance and their ability to function socially and emotionally. Financial hardship (as expressed by many of the participants) may have prevented them from functioning socially, owing to the lack of funds and/or

diminshed contact with friends or relatives due to unpaid debts and/or poor self-esteem.

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