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Effectiveness of an empowerment intervention in abused Chinese women

Key Messages

1. Intimate partner violence is a serious public health problem and effective interventions are needed.
2. Interventions should be comprehensive and culturally sensitive in order to address the needs of abused women depending on their cultural backgrounds, their abuse histories, and how severely they are impacted.
3. Providing interventions to empower abused women enables them to regain control and make decisions in the aftermath of traumatic experiences.
4. Chinese dietary regimen shows promise in helping abused women to adopt health behaviours to improve their health.

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Introduction

Violence against women by an intimate partner (intimate partner violence) is prevalent worldwide, with 10 to 69% reporting physical assault by a male intimate partner in their adult lifetime. There is mounting evidence that intimate partner violence results in immediate and long-term physical and mental health problems with high utilisation of health care, lost productivity and increased use of social services.[1] It is important, therefore, that the problem be identified and effective interventions initiated to ameliorate the consequences of this serious public health problem. Systematic reviews of the interventions, however, have found insufficient evidence on their effectiveness.[2] Previously, a clinical trial of empowerment training for Chinese abused pregnant women in Hong Kong has produced positive results.[3] In the present study, the empowerment intervention was modified for a group of Chinese non-pregnant women in a domestic violence shelter, and its effectiveness evaluated.

Methods

Study design

This was a randomised controlled trial consisting of two groups of abused women: a treatment group that received both an empowerment intervention and standard care, and a control group that received standard care only.

Sample size

All Chinese women admitted to a local domestic violence shelter between March 2005 and September 2006 who were (1) at least 18 years of age, (2) mothers of one or more children, (3) victims of intimate partner violence, and (4) willing to participate were recruited. Abused women whose abuser was not their intimate partner or who were unable to communicate in Cantonese or Putonghua were excluded. A total of 100 women met the inclusion criteria and consented to participate.

Study instruments

Information was collected at baseline, 1-month post-intervention and the 6-month follow-up using the Beck Depression Inventory-II, SF-6D Health-Related Quality of Life, Self Efficacy Questionnaire, Parenting Skills Questionnaire, Knowledge & Utilisation of Health Services Questionnaire, and Assessment of Body Characteristic and Health Condition. Multiple observations were also made to enhance the quality of measurements by soliciting case workers' perceptions and eliciting information from participants' case notes.

Intervention

The 6-hour intervention, delivered over a 3-week period, consisted of an empowerment and additional components. The former included (1) cycle of violence recognition, (2) danger assessment, (3) selecting an option, (4) applying for legal protection orders and filing criminal charges, (5) developing a safety plan, and (6) retention of community resource phone numbers. The latter included (1) group counselling on legal advocacy, (2) diagnostic assessment of health (based on concepts of Chinese medicine, teaching on Chinese dietary regimens and group counselling on health risk behaviours), and (3) teaching of parenting skills and group counselling on management of children's behavioural problems.

Standard care, which was a well-established service provided by the shelter, consisted of emergency housing and food, crisis interventions, referral to welfare, and legal advocacy or other services, was provided to both treatment and control groups.

Data analysis

Baseline characteristics between the treatment and control groups were compared using Chi squared tests or two-independent samples *t*-tests, depending on whether the characteristics were categorical or continuous. The intention-to-treat principle was used in the analysis of treatment effects on the outcomes. For each outcome measure, the change from baseline to 1-month post-intervention or 6-month follow-up was compared between the two groups by two-independent samples *t*-tests. Furthermore, 1-month and 6-month changes from baseline for each group were examined by paired *t*-tests. The normality assumption was checked before the analysis. The analysis on outcomes was repeated without consideration of subjects with missing values, in order to examine the sensitivity of the results.

Women in the treatment group were classified as adherent and non-adherent according to whether they followed the Chinese dietary regimen taught at baseline. Health outcomes based on the concepts of Chinese medicine between those who adhered and those who did not was compared by two-independent samples *t*-tests. Furthermore, personal and relationship factors at 6 months between the treatment and control groups were compared by Chi squared tests. All significance tests were two-tailed and used 0.05 as the level of significance.

Results

The flowchart of participants from recruitment through follow-up is presented in the Figure. At baseline the demographics of the treatment and control groups were similar. The mean age of the 100 women was 39 (standard deviation [SD], 9) years; 89% of them were born outside Hong Kong and 56% had lived in Hong Kong for 6 years or less. The majority (77%) had one to two children. Compared with the general population, the participants were less well educated, with 78% having had 9 years or less of schooling. They were also financially less well-off, with 71% having a monthly family income lower than the official median of $11 000. In the 12 months prior to admission, 75% of them had been severely assaulted, 44% had severe injuries as a result, 70% had reported severe psychological abuse but only 29% revealed that they had endured sexual abuse

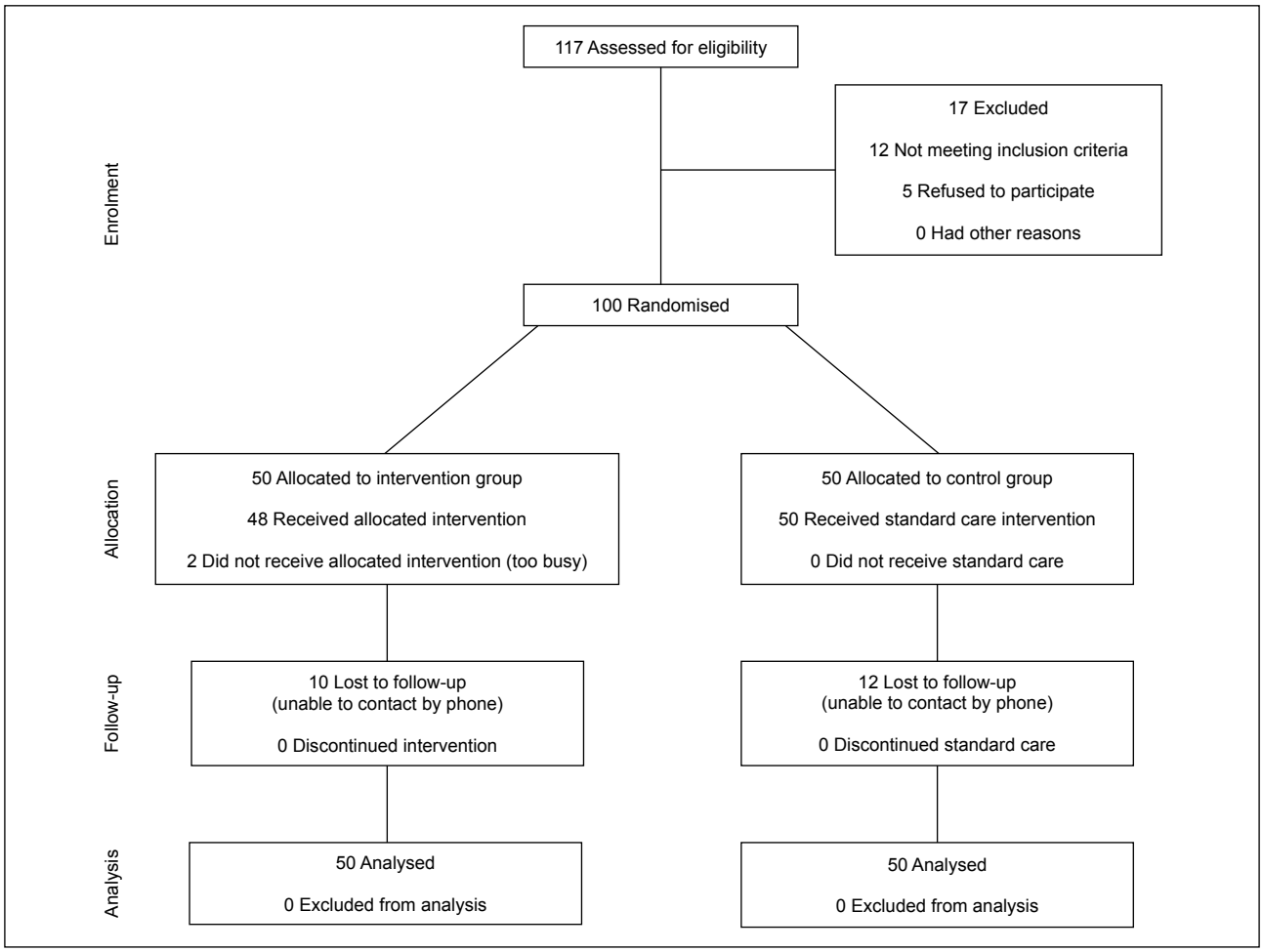

Fig. A CONSORT diagram showing the flow of participants through each stage of the randomised trial

Table 1. Comparison of changes in treatment versus control groups after different time periods

Outcome measure	Time period	Mean difference (treatment vs control)	95% CI		P value
			Lower	Upper	
Beck Depression Inventory-II	1-month to baseline	0.02	-0.18	0.22	0.81
	6-month to baseline	0.03	-0.21	0.28	0.78
SF-6D Health-Related Quality of Life	1-month to baseline	0.02	-0.04	0.08	0.55
	6-month to baseline	0.03	-0.05	0.11	0.43
Self efficacy	1-month to baseline	-0.03	-0.21	0.15	0.71
	6-month to baseline	0.00	-0.22	0.23	0.97
Parenting	1-month to baseline	0.44	0.25	0.63	<0.001
	6-month to baseline	0.00	-0.20	0.19	0.96
Diet planning	1-month to baseline	2.28	1.650	2.91	<0.001
	6-month to baseline	0.18	-0.44	0.81	0.56
Decision making	1-month to baseline	1.63	1.04	2.22	<0.001
	6-month to baseline	0.47	-0.04	0.98	0.07

Table 2. 1-month and 6-month changes from baseline for each group

Outcome measure	Group	Time period	Mean difference	95% CI		P value
				Lower	Upper	
Beck Depression Inventory-II	Treatment	1-month to baseline	-14.36	-17.53	-11.19	<0.001
		6-month to baseline	-13.74	-16.40	-11.08	<0.001
	Control	1-month to baseline	-14.84	-17.70	-11.98	<0.001
		6-month to baseline	-14.56	-18.71	-10.41	<0.001
SF-6D Health-Related Quality of Life	Treatment	1-month to baseline	0.14	0.10	0.19	<0.001
		6-month to baseline	0.16	0.10	0.21	<0.001
	Control	1-month to baseline	0.13	0.08	0.17	<0.001
		6-month to baseline	0.15	0.09	0.20	<0.001
Self efficacy	Treatment	1-month to baseline	0.04	0.08	0.17	0.50
		6-month to baseline	0.13	-0.02	0.29	0.09
	Control	1-month to baseline	0.08	-0.05	0.21	0.23
		6-month to baseline	0.17	0.00	0.34	0.05
Parenting	Treatment	1-month to baseline	0.29	0.14	0.43	<0.001
		6-month to baseline	0.06	-0.10	0.23	0.43
	Control	1-month to baseline	-0.16	-0.28	-0.03	0.02
		6-month to baseline	0.05	-0.11	0.21	0.56
Diet planning	Treatment	1-month to baseline	1.95	1.44	2.47	<0.001
		6-month to baseline	0.58	-0.11	1.27	0.10
	Control	1-month to baseline	-0.33	-0.71	0.06	0.10
		6-month to baseline	-0.09	-0.47	0.29	0.65
Decision making	Treatment	1-month to baseline	1.84	1.38	2.30	<0.001
		6-month to baseline	1.12	0.58	1.66	<0.001
	Control	1-month to baseline	0.21	-0.15	0.57	0.24
		6-month to baseline	0.32	-0.07	0.71	0.11

(minor or severe). On average, the participants had 6.5 (SD, 8.2) years of abuse history. At entry to the shelter, 87% of the participants were being threatened; 84% had expressed fear; and 17% reported they were being stalked.

Of the 100 participants, 22 dropped out of the study within 6 months (nine in the treatment group including one at month 1, and 12 in the control group). Failure to contact the participants by telephone was the main reason for attrition. With the exception of occupation (those who were employed were more likely to drop out), there were no significant differences between the completers and non-completers in terms of demographics or abuse history. The mean differences between the two groups for the different time periods (1-month vs baseline, 6-month vs baseline) are presented in Table 1. Table 2 shows the 1-month and 6-month changes from baseline for each of the groups. Although the treatment and control groups showed significant improvement from baseline to 1-month and from baseline to 6-month for depressive symptoms and health-related quality of life (P<0.001), there were no significant differences between the groups with respect to changes from baseline to 1-month or 6-month on the same outcome measures (P>0.05). On the outcomes of parenting, diet planning and decision making, the treatment group improved significantly more than controls from baseline to 1-month (P<0.001) but not from baseline to 6-month (P>0.05).

A sub-group analysis revealed that women in the treatment group who adhered to the Chinese diet regimen improved significantly more in health terms than those who did not adhere (P=0.001).

At 6 months, case workers' reports and women's case notes revealed a significantly greater number of women in the treatment group engaged in divorce procedures (P=0.002), had bad relationship with their partner (P=0.002) and had experienced adverse life experiences (loss of employment or death in the family) [P=0.004]. However, these factors did not have a moderating effect on any of the outcome measures (P>0.05).

Discussion

In a randomised controlled trial with the control group receiving well-established standard care and the treatment group receiving an empowerment intervention and standard care, two hypotheses were tested. The first hypothesis that the intervention would enhance the psychological health, quality of life and self-efficacy of the abused women was not supported. Psychological health and quality of life

improved equally in both groups at 1-month and 6-month. The second hypothesis that the intervention would increase knowledge in diet planning and parenting skills was partially supported. While women in the treatment group showed a significant improvements in diet planning and parenting at 1 month compared to the controls, such an improvement was not observed at 6 months.

In this study, although the empowerment intervention did not perform better than the standard care in improving the women's psychological health and quality of life, several factors should be taken into account. First, not only is the standard care of emergency housing, food and financial support provided by the shelter a well-established service, it was also what abused women were seeking: safety and transition to secure housing at a time of crisis.[4] Comparatively, the therapeutic effect of an empowerment intervention on health and quality of life at this stage may not be as readily recognised. Second, shelter stay could be considered a surrogate for cessation of abuse, which is associated with a decreased prevalence of depression. This may explain why the treatment and control groups showed an improvement in depressive symptoms from baseline to 6 months. Third, it was noticed that at 6 months, women in the treatment had worse relationships with their partners and experienced more life adversities compared to the controls.

Some 87% of the women reported living separately from their partners at 6 months. This is much higher than that reported in other studies (50% to 60% of women were still living with their abusers after discharge from a shelter). It has been suggested that violence impacts satisfaction for and commitment to one's relationship negatively and is positively associated with intentions to leave. Considering the long and severe history of abuse reported by the participants at entry to the shelter, it is hardly surprising that such a large number of them had decided to live apart from their partners. Notably, by 6 months significantly more women in the treatment group had gone further in the process of leaving their partners by engaging in divorce procedures than the controls. It is possible that the empowerment intervention, which is descriptive and practical (for example, the components on making choices from viable options and legal advice on divorce procedures), may have provided the women with the necessary skills, knowledge as well as material resources to achieve self-determination and take action to end the violence in their life. Leaving a violent partner, however, does not always stop the violence. In fact, separation has been identified as an important risk factor for lethal violence and injury.[5] Furthermore, separation in the context of victimisation is generally a stressful life event and is associated with increased stress levels and negative mental and other health problems for women. The act of initiating a divorce in a Chinese society, which values intact union in a couple's relationship, must be by itself a stressful decision for these women. Nevertheless, not only did the women in the treatment group maintain their improvement in psychological health from baseline to 6 months, the improvement was no less than that observed in the control group.

In a group of abused women with generally low socio-economic status and a history of severe intimate partner violence, the empowerment intervention demonstrated benefits comparable to that of the well-established standard care. This is the first time that Chinese dietary regimen has been incorporated in an intervention for abused women and it was found to be effective in improving their health. These women, despite their circumstances, were capable of understanding and practicing the Chinese dietary regimen with positive health outcome.

Conclusion

The effects of the empowerment intervention are comparable to that of the standard care provided by domestic violence shelters. Also, the Chinese dietary regimen component was shown to improve abused women's health.

To our knowledge, our study is the first to incorporate parenting and Chinese dietary regimen in interventions for abused women and to show that teaching women to improve their diets can improve their health, based on concepts of Chinese medicine. Recent systematic reviews have identified a lack of evidence on the effectiveness of intimate partner violence interventions. This study has shown that it is possible to conduct research to evaluate such interventions using a robust study design (randomised controlled trial) but longitudinal research is needed to fully assess the effects of the intervention.

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