Effect of an Advocacy Intervention on Mental Health in Chinese Women Survivors of Intimate Partner Violence

A Randomized Controlled Trial

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Context Intimate partner violence (IPV) against women can have negative mental health consequences for survivors; however, the effect of interventions designed to improve survivors' depressive symptoms is unclear.

Objective To determine whether an advocacy intervention would improve the depressive symptoms of Chinese women survivors of IPV.

Design, Setting, and Participants Assessor-blinded randomized controlled trial of 200 Chinese women 18 years or older with a history of IPV, conducted from February 2007 to June 2009 in a community center in Hong Kong, China.

Intervention The intervention group (n=100) received a 12-week advocacy intervention comprising empowerment and telephone social support. The control group (n=100) received usual community services including child care, health care and promotion, and recreational programs.

Main Outcome Measures Primary outcome was change in depressive symptoms (Chinese version of the Beck Depression Inventory II) between baseline and 9 months. Secondary outcomes were changes in IPV (Chinese Revised Conflict Tactics Scales), health-related quality of life (12-Item Short Form Health Survey), and perceived social support (Interpersonal Support Evaluation List) between baseline and 9 months. Usefulness of the intervention and usual community services was evaluated at 9 months.

Results At 3 months, the mean change in depressive symptom score was 11.6 (95% CI, 9.5 to 13.7) in the control group and 14.9 (95% CI, 12.4 to 17.5) in the intervention group; respective changes at 9 months were 19.6 (95% CI, 16.6 to 22.7) and 23.2 (95% CI, 20.4 to 26.0). Intervention effects at 3 and 9 months were not significantly different ($P=.86$). The intervention significantly reduced depressive symptoms by 2.66 (95% CI, 0.26 to 5.06; $P=.03$) vs the control, less than the 5-unit minimal clinically important difference. Statistically significant improvement was found in partner psychological aggression (–1.87 [95% CI, –3.34 to –0.40]; mean change at 3 months, 1.5 [95% CI, –1.0 to 3.9] in the control group and 0.3 [95% CI, –0.7 to 1.4] in the intervention group; mean change at 9 months, –6.4 [95% CI, –7.8 to –5.0] and –8.9 [95% CI, –10.6 to –7.2]) and perceived social support (2.18 [95% CI, 0.48 to 3.89]; mean change at 3 months, 6.4 [95% CI, 4.9 to 7.8] and 9.2 [95% CI, 7.7 to 10.8]; mean change at 9 months, 12.4 [95% CI, 10.5 to 14.3] and 14.4 [95% CI, 12.7 to 16.1]) but not in physical assault, sexual coercion, or health-related quality of life. By end of study, more women in the intervention group found the advocacy intervention useful or extremely useful in improving intimate relationships vs those in the control group receiving usual community services (93.8% vs 81.7%; difference, 12.1% [95% CI, 2.1% to 22.0%]; $P=.02$) and in helping them to resolve conflicts with their intimate partners (97.5% vs 84.1%; difference, 13.4% [95% CI, 4.7% to 22.0%]; $P=.001$).

Conclusion Among community-dwelling abused Chinese women, an advocacy intervention did not result in a clinically meaningful improvement in depressive symptoms.

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INTIMATE PARTNER VIOLENCE (IPV) is prevalent across cultures.[1] For example, in Hong Kong, where the prevailing Chinese culture is supposed to emphasize social harmony, the past-year prevalence of physical violence against women by an intimate partner is reported to range from 4.5% to 10%.[2,3] Depression is one of the most common mental health sequelae of IPV. A meta-analysis of 18 studies has found a weighted mean prevalence of depression of 47.6% among abused women,[4] which is much higher than the lifetime rates of between 10.2% and 21.3% found in the general US female population.[5,6] The ability of abused women to take care of themselves was found to be a protective factor for depression.[7]

Advocacy interventions aim to enhance abused women's self-care by helping them to make sense of the situation, identify potential solutions, and achieve the goals they have set.[8] A recent systematic review of randomized controlled trials of advocacy programs for abused women has found limited evidence that a one-time session of advocacy may help Chinese pregnant

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abused women experience less postnatal depression.[9] Therefore, we conducted an assessor-blinded randomized controlled trial to assess the effect of a 12-week advocacy intervention on depressive symptom scores, IPV, perceived social support, and health-related quality of life in community-dwelling Chinese women survivors of IPV during a period of 9 months.

METHODS

The trial was conducted from February 2007 to June 2009 at a community center in Hong Kong. The study was approved by the institutional review board of The University of Hong Kong/Hospital Authority Hong Kong West Cluster. The community center serves 3 districts in Hong Kong and covers a population of approximately 800 000.[10] The center, which has been established since 1973 and has outreach sites throughout the districts, provides a range of social, health, child care, educational, and recreational services for users of all age groups.

Study Participants

Community-dwelling Chinese women were eligible if they resided or worked in one of the districts covered by the community center, screened positive for IPV (using the Chinese Abuse Assessment Screen [C-AAS][11]), and were 18 years or older. Women were excluded from the study if they could not communicate in Cantonese or Putonghua, the 2 main Hong Kong dialects used in this study for administering the intervention and collecting data.

Sample-size calculation was based on a primary comparison of the changes in depressive symptom scores measured using the Chinese version of the Beck Depression Inventory II (C-BDI-II)[12] in women receiving an empowerment intervention and those receiving usual community services. With reference to a previous study of 110 abused women,[13] the standard deviation for the change in depressive symptom scores was taken as 12. Also, the intervention had to reduce depressive symptom scores by at least 5 units more than the usual community services before it was considered clinically effective.[14] To have a maximum 5% false-positive error rate and 80% power by a 2-tailed *t* test, we needed 92 women per group. Anticipating a small attrition rate of 8%, 200 women were required.

Intervention

The intervention used for this study is classified as a less intensive advocacy intervention (an intervention of not more than 12 total hours) that aims to directly help abused women through provision of advocacy.[9] The active ingredient of advocacy in the intervention is demonstrated by our trained research assistants (registered social workers) who, acting as advocates, sought to engage with individual abused women to empower them and link them to community services, with ongoing support, informal counseling, or both as required.

The intervention consists of 2 components: empowerment and telephone social support. The empowerment component includes protection and enhanced choice making and problem solving, both of which are derived from Dutton's empowerment model.[15] Previously, Parker et al incorporated an empowerment component in their Abuse Prevention Protocol.[16] That protocol was modified for use in this study. In relation to protection, the aim is to increase women's safety through recognition of increased danger and use of a safety plan developed for individual use. In relation to enhanced choice making and problem solving, the aim is to provide information to women about cycles of violence, facts and options, legal protection orders, filing for criminal charges, and community resources for abused women so they can make decisions about relationships, relocation, and other transitional issues.

The empowerment component of the intervention, which took about 30 minutes to deliver, was provided once in a one-to-one interview conducted in a private room (in the center or one of the outreach sites) by a designated research assistant at the beginning of the 12-week intervention. At the end of the interview, each of the women was given an empowerment pamphlet to reinforce the information provided.

The social support component, based on Cohen's Social Support Theory,[17] consisted of 12 scheduled weekly telephone calls (initiated by the designated research assistant) and 24-hour access to a hotline for the study participants for additional social support. According to social support theory, tangible and perceived social support provided by social relationships may promote health and well-being.

In addition to the advocacy intervention, women in the intervention group were also free to choose and receive the usual care services offered by the community center or its outreach sites including child care (eg, crèche, after-school tutorial/interest groups), health care and promotion (eg, Chinese medicine clinics, dental services, health promotion programs), and recreational facilities (eg, gymnasium; classes for groups with various interests, such as pottery, painting, drama, cooking).

To ensure intervention fidelity, research assistants who provided the intervention underwent training provided by 2 of the investigators (A.T., K.H.Y). Training, conducted over several sessions totaling 5 days, included how to institute the intervention in a culturally appropriate, empathetic manner based on the empowerment and social support protocols as described earlier. In addition, across the length of the study, 15% of the telephone logs including the needs expressed and the responses provided were randomly checked for adherence to the protocol. If adherence dropped below 90%, retraining and observation were conducted until a return to 90% or greater adherence was achieved. The random checks revealed that adherence did not drop below 90%.

Control

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outreach sites as described above were offered to women in the control group, who would decide on the uptake of the services according to their own needs. Although the services were supportive, they were not designed with abused women in mind. At the time of the study, there was no provision of standard care for abused women in the community except crisis intervention for severely abused women.

Study Instruments

The C-BDI-II[12] was used for assessment of depressive symptoms in the previous 2 weeks. The C-BDI-II is a 21-item scale with established construct validity and reliability for depressive symptoms.[12] The α coefficient for the C-BDI-II in this study was 0.96. Scores may range from 0 through 63, with 0 through 13 indicating minimal depression, 14 through 19 mild depression, 20 through 28 moderate depression, and 29 through 63 severe depression.

The C-AAS,[11] a 5-item instrument designed to determine abuse status and perpetrator within a defined period, was used to screen potential participants for IPV. If a woman answered "yes" to being emotionally, physically, or sexually abused within the past year and if the perpetrator was her former or current intimate partner, she was considered as having screened positive for IPV. The C-AAS has demonstrated satisfactory accuracy and utility for identifying IPV.[11]

The Chinese version of the Revised Conflict Tactics Scales (C-CTS2)[2] was used to measure the type and frequency of behaviors used by the perpetrator during partner conflict. The C-CTS2 has been validated in a representative household study of IPV in Hong Kong, with satisfactory validity and reliability.[2] Of the 27 items comprising the C-CTS2, 8 measure psychological aggression of partners toward participants, 12 measure physical assault, and 7 measure sexual coercion. A scale for each of the items indicates how often the behavior occurred in the past year (0=not in past year, 1=once, 2=twice, 3=3-5 times, 4=6-10 times, 5=11-20 times, and 6=21 or more times).

The 12-Item Short Form Health Survey (SF-12)[18] is an abbreviated form of the Medical Outcomes Study 36-item Short Form Health Survey, which is designed to assess health-related quality of life. The SF-12 has demonstrated validity and equivalence for Chinese populations.[19] The SF-12 consists of 12 items grouped under the Physical Component Summary (PCS) and Mental Component Summary (MCS) scales. The mean score of the SF-12 for the general population is 50 (scores may range from 0-100). A mean score less than 50 indicates below-average health status.

Perceptions of social support were assessed using the 12-item Interpersonal Support Evaluation List (ISEL),[20] which uses a 4-point scale for each of the statements to indicate whether they may be true (0=definitely false, 1=probably false, 2=probably true, and 3=definitely true). The ISEL has demonstrated satisfactory validity and reliability.[21] In this study, the overall α coefficient was 0.91 for the ISEL.

Usefulness of the advocacy intervention or usual community services was assessed using 2 investigator-designed questions: To what extent has/have the intervention/community services helped you improve the relationship with your partner? To what extent has/have the intervention/community services helped you resolve conflicts between you and your partner? A 4-point scale was used to indicate usefulness (4=extremely useful, 3=useful, 2=a little useful, and 1=not useful).

A demographic questionnaire was included to collect information on age, education levels, place of birth, number of years living in Hong Kong, marital status, number of children, chronic illness, employment status, financial hardship, receipt of comprehensive social security assistance, and need for financial support.

Recruitment and Consent

Participation was solicited through several means, including notices posted in the host community center or at community fairs organized by the center, through announcements in the community center's newsletters, and through personal invitations to mothers of children attending local kindergartens or schools. The recruitment notices did not mention that IPV was a criterion for participating in our study. Rather, potential participants were informed that our study aimed to investigate experiences of women in the community and to evaluate services provided by the community center.

In a private room and on her own, each potential participant was invited to participate in the study after a research assistant provided an explanation of the study's purpose, potential risks and benefits, instruments, administration time, and follow-up schedules. If a potential participant agreed to participate, written informed consent was obtained. Screening for IPV was conducted using the C-AAS. Potential participants who screened negative were thanked for their participation, and no further contact was made. Those identified as having been abused and whose perpetrators were intimate partners were enrolled in the study.

Randomization and Blinding

Participants were randomized (1:1) to the intervention or control group according to a list of random permutations prepared by computer-generated blocked randomization performed by a research staff member who had not been involved in participant recruitment. The block size was kept secure by the randomizer, and the order of allocation was centrally controlled to avoid any bias in selection. The allocation sequence was concealed in opaque envelopes. At the time of randomization, the research assistant who had successfully recruited a participant called the site investigator, who then opened the envelope containing the group assignment. To ensure random assignment, no detail was provided to the site

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investigator about the identity of the participant.

Assessors were not involved in the design of the study, did not know the study hypotheses, and were blinded to group assignment.

Data Collection

The C-BDI-II, C-CTS2, SF-12, and ISEL were administered to participants in both groups at 3 time points: (1) baseline, ie, on entry to the study after randomization but before the intervention; (2) 3-month follow-up, ie, at 3 months after enrollment (ie, on completion of the 12-week intervention or usual community services); and (3) 9-month follow-up, ie, at 9 months after enrollment (ie, 6 months postintervention). The demographic questionnaire was administered at entry only, and the usefulness of the advocacy intervention or usual community services was evaluated at the end of the 9-month follow-up interview.

Baseline data collection was conducted during individual, face-to-face interviews. Subsequent data were collected by telephone. Also, to ensure that it was safe for the women to speak on the telephone, a preferred time for calling was established, and a code was worked out in advance to indicate that the abuser was not present.

On completion of the study, the telephone logs of all 100 women in the intervention group were examined for completion rates of the 12-week telephone social support and for the needs expressed by the women.

Tracking Strategies

Systematic field tracking strategies were instituted to ensure high retention rate. The strategies were modeled on the systemized tracking methodology previously used by McFarlane et al to achieve high retention.[22] Our previous trial[23] involving highly mobile study participants in Hong Kong also informed us about how to track the participants in the present study. At intake, each woman's safe contact information and that of an alternate contact person nominated by her were obtained. The latter would be contacted if a woman's telephone number changed. If telephone contacts with the woman failed, we accessed the computerized records of the community center for more up-to-date records (required for using child care, health, or recreational services). Field tracking of the woman was recorded on a preplanned sheet with weekly records on when, how, and how often the contacts were made and the outcomes and follow-up actions as appropriate. The records were monitored weekly by the site investigator (P.P.) and discussed during the monthly research meetings (A.T., K.H.Y., P.P.), with more intensive tracking if necessary.

Referrals

There was a preplanned procedure for referring study participants (1) whose C-BDI-II scores were at the severe level (29-63); (2) who answered "yes" to C-BDI-II item 9 (I would like to kill myself/I would kill myself if I had the chance); or (3) who answered "yes" to any of the C-CTS2 severe physical assault items (2f-2l) or severe sexual coercion items (3d-3g). The research staff who had received training in the administration of the study instruments would report such findings immediately to the site investigator (P.P.), an experienced social worker in charge of the family services unit in the center who would, in the first instance, decide if and what referral would be needed before contacting the principal investigator (A.T.) about her decision.

Statistical Analysis

Statistical analysis was conducted using Statistical Analysis System (SAS) version 9.2 (SAS Institute Inc, Cary, North Carolina); all significance tests were 2-sided and used a 5% level of significance. Baseline comparisons between the intervention and control groups were performed by the likelihood ratio χ^2 test and Mann-Whitney U test for categorical and continuous characteristics, respectively. Their exact *P* values were approximated by Monte Carlo simulation of size 500.

The intervention effects on depressive symptoms, perceived social support, health-related quality of life, and IPV were examined by a linear mixed-effects model that took into account the extra covariance between repeated measurements taken at baseline, 3 months, and 9 months. Specifically, the intercept was taken as random and the baseline value, study group, and time of measurement were taken as covariates. Whether the intervention effect at 3 months was maintained at 9 months was first examined by incorporating the group × time interaction. Because there was no evidence of a change of intervention effect on depressive symptoms, perceived social support, and health-related quality of life, the overall effect of the intervention between 3 and 9 months was estimated.

The random effects as well as the residuals were checked for the adequacy of normality and potential outliers. One outlier was identified in the control group, and the analysis was repeated after its removal and after adjustment had been made for any baseline differences. Moreover, the analysis was again repeated after the removal of the 5 participants (4 in the intervention group and 1 in the control group) who received counseling. There were essentially no differences in the conclusions after these repeated analyses; thus, results obtained from all participants were reported. There were no missing values or dropouts, and the analysis was consistent with the intention-to-treat principle.

RESULTS

Of the 1753 women assessed for eligibility, 202 (11.5%) were identified as survivors of IPV. Two declined to participate, and the remaining 200 who consented were randomized to either the control or the intervention group. There was no loss to follow-up, and all 200 women were included in the data analysis (FIGURE).

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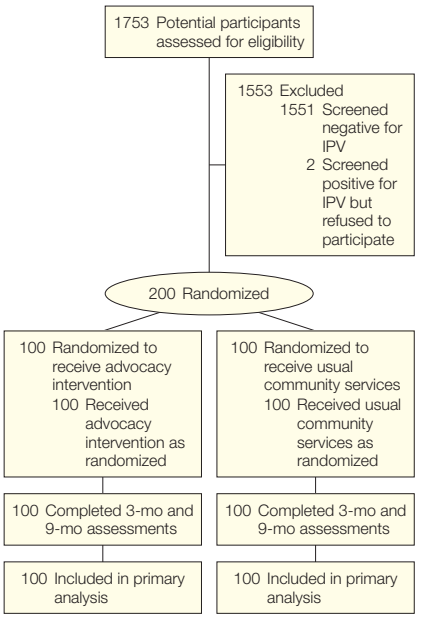
Figure. Study Flow



IPV indicates intimate partner violence.

The telephone logs revealed that 88% of the women in the intervention group received all 12 weeks of the telephone support intervention, while 7% and 5% received 11 and 10 weeks of the intervention, respectively. No participant received less than 10 weeks of the telephone support intervention. The duration of each of the telephone calls was between 15 and 20 minutes. Most of the expressed needs were related to parenting, with the women seeking help or advice in relation to their children not achieving high marks on tests or examinations, not being interested in their studies or homework, or not understanding what was being taught in English subjects. The women rarely talked about problems with their partners, despite their being in abusive intimate relationships.

The demographic characteristics of the women according to study group are shown in TABLE 1. At baseline, the intervention and control groups were comparable on all but one of the characteristics. Specifically, significantly more women in the intervention group (33%) were receiving comprehensive social security assistance than those in the control group (9%) ($P<.001$). All but 3 of the women in the study continued to stay with their partners throughout the study. Also, with the exception of 2 women already under the care of social workers, none of the women in this study had previously disclosed their IPV to or sought help from social or health services professionals.

TABLE 2 shows the study outcomes at baseline and after intervention. At baseline, there were no significant differences between the groups on all outcomes. With mean C-BDI-II scores greater than 29, severe levels of depression were indicated for both groups. The MCS scale scores for the SF-12, at less than 50 for both groups, were also below the mean for the general population.

Depressive symptom scores in the control group were reduced from baseline on average by 11.6 (95% confidence interval [CI], 9.5 to 13.7) at 3 months and 19.6 (95% CI, 16.6 to 22.7) at 9 months, while symptoms in the intervention group were reduced by 14.9 (95% CI, 12.4 to 17.5) at 3 months and 23.2 (95% CI, 20.4 to 26.0) at 9 months. After adjusting the baseline values, the intervention effects on the changes at 3 and 9 months did not significantly differ ($P=.86$). The intervention group reduced depressive symptom scores by 2.66 (95% CI, 0.26 to 5.06; $P=.03$) more than the control group during 3 to 9 months, after adjusting for the baseline values. The effects did not differ after adjusting for the baseline differences in receipt of comprehensive social security assistance, removal of the outlier, or both.

In the control group, the mean change from baseline in psychological aggression of partners toward participants was 1.5 (95% CI, –1.0 to 3.9) at 3 months and –6.4 (95% CI, –7.8 to –5.0) at 9 months. In the intervention group, the corresponding respective changes were 0.3 (95% CI, –0.7 to 1.4) and –8.9 (95% CI, –10.6 to –7.2). Again, the adjusted intervention effect did not significantly differ between 3 and 9 months ($P=.19$). The intervention group significantly reduced partner psychological aggression by 1.87 (95% CI, 0.40 to 3.34; $P=.01$) more than the control group, after adjusting for the baseline difference. However, the between-group differences for physical assault and sexual coercion were not significant during the same period.

The mean changes of the 2 SF-12 component scores from baseline in the control group were –0.9 (95% CI, –2.0 to 0.2) for the PCS and 7.8 (95% CI, 6.1 to 9.6) for the MCS at 3 months and 0.3 (95% CI, –1.0 to 1.6) for the PCS and 11.3 (95% CI, 9.5 to 13.1) for the MCS at 9 months. The respective changes in the intervention group were –1.0 (95% CI, –1.9 to 0.03) for the PCS and 9.4 (95% CI, 7.5 to 11.2) for the MCS at 3 months and 1.0 (95% CI, –0.2 to 2.3) for the PCS and 12.8 (95% CI, 10.9 to 14.7) for the MCS at 9 months. However, the between-group differences for SF-12 scores were not significant during 3-month to 9-month follow-up after adjusting for the baseline difference.

The mean changes of the ISEL scores from baseline to 3 and 9 months were 6.4 (95% CI, 4.9 to 7.8) and 12.4 (95% CI, 10.5 to 14.3), respectively, in the control group and 9.2 (95% CI, 7.7 to 10.8) and 14.4 (95% CI, 12.7 to 16.1), respectively, in the intervention group. The between-group difference of the change at 3 months did not differ significantly from that at 9 months ($P=.37$). During 3-month to 9-month follow-up, ISEL scores increased significantly in the intervention group compared with the control group, after adjusting for the baseline difference (2.18 [95% CI, 0.48 to 3.89]; $P=.01$).

Significantly more women in the intervention group found the intervention to be useful to extremely useful in improving their intimate relationships compared with those in the control group (93.8% vs 81.7%; between-group difference, 12.1% [95% CI, 2.1% to 22.0%]; $P=.02$) and in helping them resolve conflicts with their intimate partners (97.5% vs 84.1%; between-group difference, 13.4% [95% CI, 4.7% to 22.0%]; $P=.001$).

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There was no report of adverse events as a result of the women participating in this study. Blinding appeared to be sustained, because none of the assessors knew the group assignment of the participants until they came to the last question, which solicited the participants' evaluation of the intervention or usual community services.

Five of the participants (of which 4 were in the referral group) met 1 or more of the conditions for referral. All agreed to be referred to social services for counseling, but none accepted our offer to refer them for diagnostic assessment. We were not aware that any of the participants had received treatment for depression without being referred by us.

COMMENT

This report describes a randomized controlled trial of an advocacy intervention in a group of community-dwelling abused Chinese women. This is the first study to examine the effectiveness of an advocacy intervention for abused Chinese women in a community setting. We found that the trial resulted in a change of about 3 units in the C-BDI-II score for the

Table 1. Demographic Characteristics of Participants

Characteristic	Group, No. (%) Intervention (n = 100)	Control (n = 100)	*P* Value
Age, mean (SD), y			
Self	38.18 (7.61)	37.99 (6.79)	.87
Partner	45.2 (9.81)	44.08 (9.07)	.54
Education grade level			
≤6	25 (25)	30 (30)	.56
7-13	71 (71)	65 (65)	
Tertiary	4 (4)	5 (5)	
Place of birth			
Hong Kong	33 (33)	43 (43)	.39
Mainland China	65 (65)	56 (56)	
Hong Kong resident ≤7 y	65 (65)	73 (73)	
Marital status			
Married	88 (88)	91 (91)	.10
Single	5 (5)	3 (3)	
Divorced	7 (7)	6 (6)	
≤1 Children	46 (46)	51 (51)	.65
Chronic illness[a]			
Self	15 (15)	11 (11)	.53
Partner	11 (11)	8 (8)	.63
Employed			
Self	30 (30)	32 (32)	.89
Partner	76 (76)	78 (78)	.88
Experiencing financial hardship	72 (72)	73 (73)	.86
Receiving comprehensive social security assistance	33 (33)	9 (9)	<.001
In need of financial support	65 (65)	58 (58)	.39

[a] Condition that is long-lasting or recurrent, eg, diabetes mellitus, chronic obstructive pulmonary disease, asthma, heart failure, cancer, arthritis, chronic renal failure.

Table 2. Mean Study Instrument Scores for Both Groups

Instrument	Group, Mean (SD) Intervention (n = 100) Baseline[a]	3 mo	9 mo	Control (n = 100) Baseline[a]	3 mo	9 mo	Adjusted Between-Group Difference[b] Estimate (95% CI)	*P* Value
C-BDI-II[c]	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 to –0.26)	.03
ISEL[d]	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 to 3.89)	.01
SF-12[e]								
PCS	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 to 1.65)	.58
MCS	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 to 2.77)	.42
C-CTS2[f]								
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 to –0.40)	.01
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 to 0.10)	.13
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 to 0.09)	.60

Abbreviations: C-BDI-II, Chinese version of the Beck Depression Inventory II; C-CTS2, Chinese version of the Revised Conflict Tactics Scales; ISEL, Interpersonal Support Evaluation List; MCS, Mental Component Summary Scale; PCS, Physical Component Summary Scale; SF-12, 12-Item Short Form Health Survey.
[a] No baseline difference; $P \geq .12$ for all.
[b] Estimated between-group difference (intervention – control) during 3 months to 9 months after adjustment for baseline values.
[c] Range of possible scores is from 0 to 63. Higher scores indicate higher levels of depression.
[d] Range of possible scores is from 0 to 36. Higher scores indicate greater perceived social support.
[e] Range of possible scores is from 0 to 100, with higher scores indicating better health-related quality of life. When the mean score is less than 50, health status is below average.
[f] Range of possible scores is from 0 to 6 for each item (see "Methods"). Higher scores indicate higher levels of intimate partner violence.

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intervention group compared with the control group, which was less than the change of at least 5 units before the improvement would be considered clinically meaningful. Thus, the intervention did not result in a clinically meaningful improvement in depressive symptom scores.

In a recent review of trials of advocacy interventions for abused women, evidence for the positive effects of the intervention on depression was equivocal.[9] Specifically, in 2 of the trials that used an intensive (≥12 hours) advocacy intervention, depressive symptoms did not improve at up to 12 months of follow-up.[24,25] The trial that used a brief, one-time advocacy intervention (of approximately 30 minutes' duration) in the antenatal period for abused Chinese women showed that fewer women developed postnatal depression.[23] In the present study, extending the brief intervention by adding a social support component in the form of 12 weekly telephone calls did not bring about clinically meaningful benefit in depressive symptom scores. Screening of the intervention group as well as the control group for IPV could be one of the reasons for this lack of clinically meaningful benefit, because abuse screening alone may have a beneficial effect for abused women.[26] As well, members of the control group may have received treatment for depression outside the study without our knowledge.

Passage of time and regression to the mean could also be responsible for participants in both groups moving from severe to moderate to mild on the C-BDI-II. Also, women in the intervention group appeared to be less interested in relationship advice than parenting counseling. This is consistent with the suggestion that Asian couples tend to frame their relationship issues in the context of raising children.[27] As such, the intervention could be providing services (on relationship) that the women did not want or use, and this may have accounted for the lack of clinically meaningful improvement in their depressive symptom scores. Moreover, the intervention did not address issues such as role strain, financial problems, unemployment or underemployment, and lack of education, which are known to be contributing factors to depression. Even though the improvement in depressive symptom scores was not clinically meaningful, the statistically significant reduction in C-BDI-II scores and the women's positive feedback about the intervention suggest that advocacy intervention could be the basis for future models addressing depressive symptoms of abused Chinese women in the community.

The reduction in psychological aggression of partners toward participants in this study warrants attention. It is possible that the decrease in partner psychological aggression may have helped improve intimate relationships and resolve conflicts, thus contributing to improvements in depressive symptoms. While previous studies have identified the link between intimate psychological aggression and depression,[28-30] future research could further explore how a decrease in psychological aggression may reduce depressive symptoms.

Although the lack of attrition in this study may appear remarkable, previous trials involving abused women have also reported high retention rate.[22,23] We used systematic field-tracking strategies augmented by the computerized records maintained by our well-established community center with a high number of members in a district with relatively stable populations. In addition, few women in our study had been physically assaulted or sexually coerced, which may account for the high percentage (98.5%) staying in the relationship as well as the high retention rate attributable to the reduced likelihood of their moving out of the district.

A limitation of this study is the reliance on self-reports, which are subject to memory errors and conscious or unconscious distortions of what is reported.[31] Another limitation is the relatively short follow-up period, which allowed ascertainment of only the short-term effects of the intervention.[9] Focusing on the women's efforts in coping with IPV without taking into account the actions of their partners is also a limitation. Without knowing the context in which IPV occurs, the actions of both the perpetrators and the survivors cannot be fully understood.[32]

CONCLUSION

In this randomized clinical trial of an advocacy intervention for community-dwelling abused Chinese women, the intervention did not result in a clinically meaningful improvement in depressive symptoms.

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> To reflect is to look back over what has been done so as to extract the net meanings which are the capital stock for intelligent dealing with further experiences.
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> —John Dewey (1859-1952)

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