Evaluating the Chinese Revised Controlling Behaviors Scale

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Abstract

The present study evaluated the utility of the Chinese version of the Revised Controlling Behaviors Scale (C-CBS-R) as a measure of controlling behaviors in violent Chinese intimate relationships. Using a mixed-methods approach, in-depth, individual interviews were conducted with 200 Chinese women survivors to elicit qualitative data about their personal experiences of control in intimate relationships. The use of controlling behaviors was also assessed using the C-CBS-R. Interview accounts suggested that the experiences of 91 of the women were consistent with the description of coercive control according to Dutton and Goodman's conceptualization of coercion. Using the split-half validation procedure, a receiver operating characteristics (ROC) curve analysis was conducted with the first half of the sample. The area under the curve (AUC) for using the C-CBS-R to identify high control was .99, and the cutoff score of 1.145 maximized both sensitivity and specificity. Applying the cutoff score to the second half gave a sensitivity of 96% and a specificity of 95%. Overall, the C-CBS-R has demonstrated utility as a measure of controlling behaviors with a cutoff

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score for distinguishing high from low levels of control in violent Chinese intimate relationships.

Keywords

intimate partner violence, controlling behavior assessment, Chinese

It has long been recognized that just counting the number of violent acts cannot adequately explain the violence in intimate relationships (e.g., Dutton & Goodman, 2005; Edleson & Tolman, 1992). Rather, attention should be given to the context in which intimate partner violence (IPV) takes place. Specifically, it is important to ascertain whether the violence is part of a general pattern of power and control in such relationships (Johnson, 2008). However, assessing control in violent intimate relationships has been a challenge for practitioners and researchers. In particular, differentiating high from low levels of control in the relationship is problematic. Cluster analysis was used to identify clusters of high and low control individuals in previous studies (Graham-Kevan & Archer, 2003; Johnson, 2008; Johnson & Leone, 2005). There are, however, problems with using a cluster analysis method, including the lack of well-established rules for defining a cluster (Punj & Stewart, 1983) or definitive criteria for admission to a cluster (Cattell, 1978). Furthermore, the nature of the sample significantly influences the nature of the cluster (Johnson, 2008). Thus, even when the sample contains very few or no individuals with a high level of control, a cluster analysis will still find clusters of higher and lower levels of control. In such cases, a high level of control is only so in comparison with the rest of the sample. It has been suggested that both qualitative and quantitative data should be used concurrently to find a cutoff for differentiating low and high levels of control in violent intimate relationships (Johnson, 2008). No studies, however, have reported on the use of a cutoff score for dichotomizing levels of control in IPV.

In addition, there is a need to understand the use of control not only in the context of IPV but also in the cultural system where the violence occurs (Dutton, 1996; Edleson & Tolman, 1992). Previously, research found that psychological abuse victimization, rather than physical and/or sexual abuse victimization, had a negative impact on Chinese women's mental health (Tiwari et al., 2007). Despite the conjecture in the above study that the partners might have used ridiculing and shaming to control the women, the use of control by the perpetrator was not measured. Nevertheless, the importance of using a culturally sensitive tool to assess IPV was clearly demonstrated.

A number of measures have been used to assess the use of control in intimate relationships, including a 92-item Coercive Control measure (Dutton,

Goodman, & Schmidt, 2005), behavior-specific questions on controlling behaviors by an intimate partner in the World Health Organization (WHO) multicountry study (Garcia-Moreno, Jansen, Watts, Ellsberg, & Heise, 2005), and the Revised Controlling Behaviors Scale (CBS-R; Graham-Kevan & Archer, 2005). However, none of the measures has been validated for Chinese women and their appropriateness for these women is therefore not known.

The present study aimed to evaluate the utility of the Chinese version of the CBS-R (hereafter known as the C-CBS-R) as a measure of controlling behaviors in Chinese intimate relationships and to find a cutoff point on the C-CBS-R using a mixed-methods approach. The CBS-R was chosen because of the commonalities identified (N. Graham-Kevan, personal communication, September 24, 2010) between the domains of the CBS-R and the control tactics reported by abused Chinese women (Tiwari & Yuen, 2010). Specifically, the abusive partners in Tiwari and Yuen's study were reported to use tactics such as "making it difficult for her to work," "threatening to hurt her and/or the children," "causing embarrassment to her by being rude to her family or friends," "restricting the amount of her activities outside the relationship," and "constantly checking on her whereabouts." And such tactics were similar to the five domains of the CBS-R, namely, "using economic abuse," "using coercion and threats," "using intimidation," "using emotional abuse," and "using isolation" (Graham-Kevan & Archer, 2008). Furthermore, a validated Chinese version of the CBS-R is needed because Chinese women may not interpret controlling behaviors in the same way as their Western counterparts due to their Chinese upbringing. For example, under the influence of the traditional Chinese culture, which emphasizes the need for a wife to be submissive to her husband (Tang & Lai, 2008), Chinese women, instead of viewing a husband's use of punishment as a form of control, may even condone it as his right to bring his wayward wife into line (Chan, 2009). Thus, there is a need to validate the Chinese version of the CBS-R to ensure that it is culturally appropriate.

Method

Design

The findings presented in this article are part of a large cohort study of Chinese women's experiences of IPV victimization (Tiwari, Lam, & Hong, 2012). The present study adopted a mixed-methods design to elicit qualitatively the women's personal experiences of control in intimate relationships through individual, in-depth, semistructured, face-to-face interviews. A quantitative approach was also used to evaluate the C-CBS-R through a researcher-administered questionnaire. The study was approved by the Institutional Review Board of the principal investigator's (PI) institution.

Participants and Setting

To be eligible for the study, the participants had to be Chinese women, 18 years of age or older, able to communicate in Cantonese or Putonghua (the two main dialects spoken in Hong Kong), and screened positive by the researcher for intimate partner physical violence victimization in the preceding 12 months based on the Chinese Abuse Assessment Screen. A total of 200 women met the inclusion criteria and were recruited for the present study. Recruitment sites were deliberately selected to maximize diversity in the women's IPV victimization experiences. Thus, recruitment sites covered all districts in Hong Kong and included shelters for abused women, community centers operated by nongovernmental organizations, and the Family and Child Protective Services Units (FCPSUs) under the Social Welfare Department of the Government of Hong Kong Special Administrative Region. Of the 200 participants, 100 were recruited from the four shelters for abused women and the remaining 100 women were recruited from 7 community centers ($n = 48$) and 11 FCPSUs ($n = 52$).

Measurements

Qualitative measures. The interviewer sought to elicit information from the participants about the context in which the violence occurred and their experiences of control in their intimate relationships. An opening question was posed to the interviewee: "Can you tell me what it has been like living with your partner all these years?" Prompts were used to help elaborate on the accounts reported, such as "What do you and your partner do when dealing with matters arising between you (such as family income, spending, parenting, in-laws, socializing with friends, going out without the partner)?" "What do you and your partner do when you two disagree about something?" "Do you feel that you are free to do what you want?" (with reference to the subject under discussion, such as parenting, spending, socializing, etc.), "Are there times in your relationship when you feel that your partner is the one who decides what you can or cannot do, and how do you feel when that happens?" "Are you afraid of your partner?"

Quantitative measures

Controlling behavior. A 32-item CBS-R (see the appendix) developed by Graham-Kevan and Archer (N. Graham-Kevan, personal communication, 24 Sep 2010) was adopted to measure the use of controlling behaviors by the woman (self-reports) and that by the partner (derived from the woman's report on her partner; Graham-Kevan & Archer, 2005); this was created by

adding the subscales of using children (5 items; for example, "threaten to take the children away") and minimizing (3 items; for example, "blame the other for being hit") to the original five subscales of economic control (4 items; for example, "make it difficult for the other to work or study"), threatening control (4 items; for example, "threaten to harm the other one"), intimidating control (5 items; for example, "smash the other's property when annoyed/angry"), emotional control (5 items; for example, "show the other one up in public"), and isolating control (6 items; for example, "try to restrict time one spent with family or friends"). Each item of the CBS-R was rated on a 5-point Likert-type scale ranging from 0 (*never*) to 4 (*always*). The original CBS-R has demonstrated satisfactory alpha values (Graham-Kevan & Archer, 2009).

For measuring controlling behaviors in violent Chinese intimate relationships, the 32-item English version of the CBS-R was forward translated into traditional Chinese. To ensure that the meaning of each item was retained, a consensus meeting was held by two of the investigators (A.T. and G.L.) who are bilingual (in traditional Chinese and English). It was then back-translated into English by a professional translator who was blinded to the original English version of the CBS-R. The back-translated English version was compared with the original English version to ensure equivalence in meaning and expression. Modifications were made as appropriate (first draft). It was then independently reviewed by three Chinese researchers/practitioners with expertise in IPV victimization and perpetration in the Chinese community. All three reviewers found the Chinese CBS-R to be relevant, appropriate, and comprehensive. Only minor revisions were made to some of the wordings of the items as suggested by the reviewers, and the C-CBS-R was revised accordingly (second draft). Cultural adaptation testing was conducted with 5 abused Chinese women who were invited to complete the C-CBS-R and then undergo cognitive debriefing with the PI in face-to-face interviews. Further modifications and refinements were made based on the women's feedback on clarity, ease of understanding, and relevance (final draft). Finally, the C-CBS-R was pilot tested for feasibility with another 15 abused Chinese women. No further revisions were made to the C-CBS-R after the pilot test.

In addition, the Chinese Revised Conflict Tactics Scale (C-CTS2; Chan, Brownridge, Tiwari, Fong, & Leung, 2008), Chinese posttraumatic stress disorder (PTSD) Checklist Civilian version (C-PCL-C; Wu, Chan, & Yiu, 2008), and Chinese Beck Depression Inventory version II (C-BDI-II; Chinese Behavioral Science Society, 2000) were administered to assess participants for intimate partner physical violence victimization, PTSD symptoms, and depressive symptoms, respectively.

Procedure

The study was conducted between September 2010 and August 2012. In a private room provided by the shelter/community center/FCPSU, an individual, semistructured interview was conducted and recorded digitally with the woman's permission. To elicit private and sensitive information from Chinese women survivors of IPV, we have developed an interviewing technique that allows us to build trust with the interviewee and gain access to her experiences, feelings, and thoughts about her intimate relationship (Tiwari, Fong, & Lam, 2011). Furthermore, in addition to the verbal accounts, the interviewer also enhanced the richness of the interview data by keeping field notes, including the nonverbal cues displayed by the woman (such as her facial expression, gesture, posture, and tone of voice), distressing thoughts, feelings, and images. The field notes also included clarifications sought, the interviewer's understanding of the woman's experiences and empathy for the woman, inferences drawn from the woman's utterances, and her comments about the accuracy of the inferences. In addition, a questionnaire containing the C-CTS2, C-CBS-R, C-PCL-C, and C-BDI-II was also administered.

Qualitative data analysis. Three of the researchers (A.T., G.L., and K.L.) independently undertook a structured analytic process to gain a deep understanding of the meaning of the data. During the process, which took several months, the researchers became deeply immersed in the data (women's accounts and field notes) through repeated reading, intuiting, analyzing, and synthesizing (Streubert & Carpenter, 2011). In addition, the cyclic nature of questioning and verifying that started in the data collection stage continued throughout the data analysis process. This ensured that the researchers questioned their prior conclusions in the context of what they had discovered at different points in the analysis process. Data analysis took the form of identifying key words and phrases and grouping similar ones into categories. The categories were critically examined and interpretations were made. Similar categories were clustered to form themes. Through questioning, verifying, and reflecting, the researchers related the themes to one another and arrived at a rich description of the phenomenon being investigated, that is, the context in which partner violence took place in Chinese intimate relationships. The rigor of the analysis was ensured by the three researchers undertaking repeated rounds of critical discussion and debate, in addition to their own analysis, to assess the accuracy and credibility of the emerging themes.

Statistical analysis. The C-CBS-R was analyzed as in Johnson (1999), based on the women's reports of their and their partners' use of controlling behaviors. For each individual, the mean C-CBS-R score was calculated as the total

item score divided by the number of applicable items. To determine a cutoff score of the C-CBS-R for dichotomizing high and low levels of controlling behaviors, the participants' qualitative findings (i.e., the reported partner violence took place in a context of coercive control [yes] or not [no]) and the quantitative findings (i.e., the mean C-CBS-R scores) were inputted for analysis. The sample of 200 participants was randomly split into two halves. For the first half, using the qualitative findings as the benchmark, as suggested by Johnson (2008), we conducted a receiver operating characteristic (ROC) curve analysis. Specifically, the Youden index, that is, sensitivity (1 – specificity), was calculated for different cutoff values, and the cutoff value that maximized the Youden index was taken as optimal. The optimal cutoff value was then validated by using the second half of the sample to obtain the sensitivity, specificity, positive predictive value (PPV), and negative predictive value (NPV). Criterion validity of the C-CBS-R cutoff score was assessed by using a *t* test to examine the known higher depression level in individuals experiencing partner violence accompanied by coercive control (Dutton et al., 2005). The Statistical Package for the Social Sciences (SPSS) version 20.0 was used for the analysis and 95% confidence intervals (CI) were reported where appropriate.

Results

Participants

Table 1 shows the demographic characteristics and IPV experiences of the 200 women in the study.

Table 2 summarizes the qualitative findings.

Qualitative Findings: The Context in Which Partner Violence Took Place in Chinese Intimate Relationships

Of the 200 women interviewed, 91 gave vivid accounts of how their partners used, in addition to physical violence, a wide range of behaviors to control them, including denying them money and support, and restricting their contacts with others. The partners' wishes had to be obeyed and failure to do so would result in punishment of a physical (e.g., beating) or sexual (e.g., forced sex) nature. The fear of punishment often deterred the women from doing anything of which (they thought) their partner would not approve.

Not only did the women have to account for every minute of their movements, the partners also checked on them frequently (e.g., via cell phone). Subjected to frequent and repeated episodes of humiliations, threats, and verbal abuse, the women were living in a state of fear and uncertainty. The lack

Table 1. Demographic Characteristics and IPV Victimization.

Demographic Characteristics	*n* (%)
Place of recruitment	
Shelters	100 (50%)
FCPSUs	52 (26%)
Community centers	48 (24%)
Age (*M* [*SD*])	
Women	41.63 ± 11.42
Partners	49.61 ± 12.80
Employment status	
Women	
Employed	58 (29.0%)
Housewife	132 (66.0%)
Partners	
Employed	124 (62.9%)
Unemployed	43 (21.8%)
Retired	30 (15.2%)
Marital status	
Single	5 (2.5%)
Married/cohabiting	95 (47.5%)
Separated/divorced	100 (50.0%)
Women's place of birth	
Hong Kong	46 (23.0%)
Mainland China	154 (77.0%)
Number of children	
0	10 (5.0%)
1	76 (38.0%)
2	80 (40.0%)
3 or more	34 (17.0%)
Financial hardship (past year)	132 (66.0%)
IPV victimization (past year)	
Psychological abuse	200 (100%)
Physical violence	200 (100%)
Sexual coercion	66 (33.2%)
Physical injury	163 (81.5%)
Medical services sought	103 (51.5%)

Note. IPV = intimate partner violence; FCPSUs = family and child protective services units.

Table 2. Summary of Qualitative Findings.

Key Findings	Woman Survivors of IPV With a Violent and Controlling Partner (*n* = 91)		Woman Survivors of IPV Whose Partner Is Violent but Not Controlling (*n* = 109)
Partner's use of controlling behaviors	Yes		No
	Variety	A wide range of controlling behaviors	Instead, the women were able to pinpoint the source of the conflict in their intimate relationship (most common ones were disagreement over parenting practice, financial difficulties, partner's alcohol abuse, and his extramarital affairs)
	Most common	Restricting her capacity to self-care (e.g., not allowing her to work or letting her have access to the family income)	
	Frequency	Ubiquitous, covering many aspects of her life (e.g., daily living, social activities, and her role as a wife, mother, and daughter)	
	Duration	Insidious, occurring over a long period of time	
Her response to partner's controlling behaviors	*Compliance*, to protect herself and the children		No report of the need for compliance
	Resistance was not common and if done at all, tended to be of a nonconfrontational nature (e.g., doing just enough to satisfy the partner's demand)		
Monitoring by partner	Frequent (e.g., calling her on cell phone every 5 min or less and demanding to know where she was and she was doing)		No report of monitoring by partner
	She may also report to him without being asked to avoid arousing his accusation, harassment, or anger		
Consequence of her noncompliance	Punishment, often physical (e.g., severe beating); may be sexual also (e.g., forced sex in front of the children)		No report of consequence of noncompliance
	Punishment was generally not frequent as she would try her best to do what her partner wanted her to do (to be more exact, what she *thought* he wanted her to do)		
	A severe beating (or sexual assault) would likely have a long-lasting deterrent effect		

Table 2. (continued)

Key Findings	Woman Survivors of IPV With a Violent and Controlling Partner (*n* = 91)	Woman Survivors of IPV Whose Partner Is Violent but Not Controlling (*n* = 109)
Effects of his controlling behaviors on her	*Isolation* (e.g., lack of money, fear of reprisal, actual or threatened embarrassment deterred her from keeping in touch with family and/or friends) *Fear* (e.g., not knowing when his violence would erupt) Living with her partner is like "treading on thin ice" and there was "no way out." Many of the women described their partner as a dictator" Tried to accept her partner's demands as routine Adversely affected by the constant need to be vigilant (e.g., poor sleep, fatigue, and chronic pain were common complaints) and as this woman described, "having to watch everything that I do is worse than being beaten up by him . . ."	Even though no controlling was reported, living with a violent partner was affecting her health and well-being. Common complaints were poor sleep, anger, and depression. Some of them found relief by turning to their religious affiliation or doing voluntary work for the community.

Note. IPV = intimate partner violence.

of financial means, fear of reprisal from the partner, and the actual or threatened embarrassment by the partner in front of their family or friends have also deterred many of the women from visiting their families or socializing with friends. The accounts provided by these 91 women were consistent with Dutton and Goodman's (2005) descriptions of partners' use of coercive control in violent intimate relationships. Such descriptions were not apparent in the accounts provided by the remaining 109 women, whose experiences of IPV were often the result of disagreements over parenting practices, financial difficulties, the partner's alcohol abuse, or his extramarital affairs.

Quantitative Findings: Evaluation of the C-CBS-R and the Cutoff Score

The mean C-CBS-R score. Table 3 shows the overall mean C-CBS-R scores and mean scores for each of the five subscales indicating controlling behaviors used by the women and their partners. The alpha values for the C-CBS-R were .799 (women) and .928 (partners).

Table 3. Mean C-CBS-R Scores and Standard Deviations (*SD*) Indicating Women's and Partners' Use of Controlling Behaviors.

	Partners		Women		
	M	*SD*	*M*	*SD*	*t*
Economic abuse	1.549	1.377	0.060	0.255	1.489***
Coercion and threats	0.929	1.019	0.251	0.390	0.679***
Intimidations	1.427	1.029	0.253	0.365	1.174***
Emotional abuse	1.395	1.172	0.130	0.367	1.265***
Isolation	1.214	1.496	0.205	0.586	1.010***
Using children	1.194	0.983	0.403	0.502	0.791***
Minimizing	0.732	1.083	0.005	0.067	0.727***
Total	1.233	0.935	0.240	0.215	0.944***

Note. C-CBS-R = Chinese Revised Controlling Behaviors Scale.
*p < .05.

The cutoff score of the C-CBS-R. The results of the ROC curve analysis for the first half of the data are shown in Figure 1. The area under the curve (AUC) is .991 (95% CI = [.982, .999]; *p* < .001). The sensitivity, specificity, PPV, NPV, and Youden's index of the different cutoff mean scores on the C-CBS-R to identify the use of coercive control are displayed in Table 4. The cutoff score of 1.145, which has the highest Youden's index, was selected. The chosen cutoff score was then applied to the second half of the data to evaluate the accuracy of the cutoff score. With a sensitivity of 96% (95% CI = [88.1%, 100%]), specificity of 95% (95% CI = [88.9%, 97.1%]), and PPV and NPV of 87% (95% CI = [65.0%, 89.0%]) and 99% (95% CI = [97.3%, 100%]), respectively, the score of 1.145 was found to be an optimal cutoff. The correct classification rate was 93% (95% CI = [89.3%, 96.7%]).

Criterion validity of the C-CBS-R cutoff score. By applying the C-CBS-R cutoff score of 1.145 to the women's reports of mental health effects of IPV, it was found that women experiencing partner violence accompanied by the partner's use of a high level of controlling behaviors (i.e., > 1.145) reported significantly higher depressive symptoms (31.72 vs. 11.61; *p* < .001) and PTSD symptoms (60.24 vs. 33.89; *p* < .001) compared with those women whose experience of partner violence was not accompanied by the partner's use of a high level of controlling behaviors.
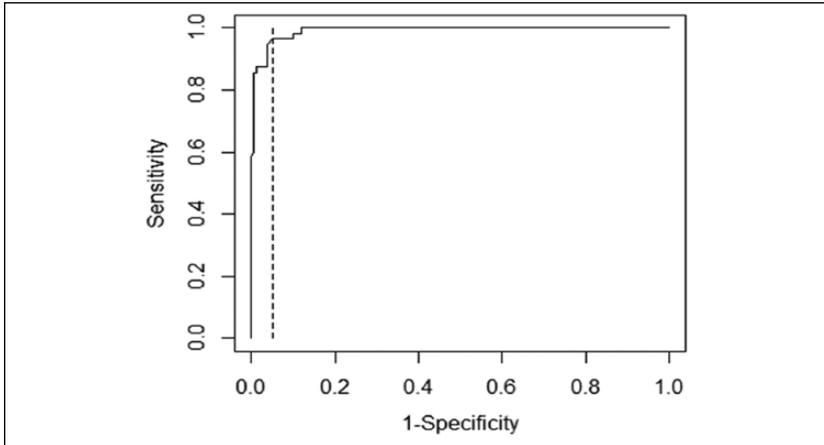
Figure 1. ROC curve for using the C-CBS-R to assess coercive control.
Note. ROC = receiver operating characteristic; C-CBS-R = Chinese Revised Controlling
Behaviors Scale.

Table 4. The Sensitivity, Specificity, PPV, NPV, and Youden's Index of the
C-CBS-R at Different Cutoff Mean Scores.

Cutoff Score	Sensitivity	Specificity	PPV	NPV	Youden's Index
1.087	0.964	0.925	0.815	0.987	0.889
1.113	0.964	0.944	0.855	0.987	0.908
1.145	*0.964*	*0.950*	*0.869*	*0.987*	*0.914*
1.258	0.945	0.963	0.897	0.981	0.908
1.387	0.927	0.963	0.895	0.975	0.890

Note. PPV = Positive Predictive Value; NPV = Negative Predictive Value; C-CBS-R = Chinese
Revised Controlling Behaviors Scale. Italicization denotes cutoff score.

Discussion

The present study was the first to report on the utility of the C-CBS-R as a
measure of controlling behaviors and a cutoff point for distinguishing high
from low levels of controlling behaviors in Chinese intimate relationships.
Using an agency sample (abused women recruited from abused women shel-
ters and FCPSUs) and a community sample (abused women recruited from
community centers) in Hong Kong, we conducted a mixed-methods study, as
suggested by Johnson (2008), to evaluate the utility of the C-CBS-R and to

validate the cutoff score of the C-CBS-R both qualitatively and quantitatively. We found that the C-CBS-R had utility as a measure of controlling behaviors in violent Chinese intimate relationships. In addition, we successfully demonstrated that a cutoff score of 1.145 on the C-CBS-R was an optimal point for distinguishing high from low levels of controlling behaviors. Evidence of criterion validity was also found, with the C-CBS-R scores positively correlated with scores of PTSD and depressive symptoms. In future, it is suggested that 1.145 be used as a standard cutoff score with the C-CBS-R and possibly with the CBS-R.

An advantage of a cutoff score on the C-CBS-R is that frontline service providers can work out whether the reported controlling behaviors are indicative of a high or low level of control in the context of violent intimate relationships. This would allow them to make early identification of those most at risk of further violence and/or injury so that timely and potentially effective interventions may be initiated. For example, if partner violence is found to be accompanied by a high level of controlling behaviors by the partner, ending the relationship does not necessarily end the violence. Indeed, the threat to the perpetrator's control as a result of the separation may even lead to an escalation of the use of control (Bachman & Saltzman, 1995). In such cases, ensuring the safety of the woman and other members of her family must be a priority in addition to helping the woman to leave the relationship.

In the present study, a partner's use of a high level of controlling behaviors in a violent Chinese intimate relationship was found to be correlated with more severe depressive and PTSD symptoms. Our finding is consistent with Johnson and Leone's (2005) analysis of 4,967 married women in the National Violence Against Women Survey, which revealed that IPV survivors experiencing a high level of coercive control had significantly higher scores of depressive and PTSD symptoms. In a well-documented meta-analysis by Golding (1999), the adverse impact of IPV on survivors' mental health was clearly demonstrated, with depression and PTSD being the two most common mental health sequelae of IPV. Our present study has confirmed and further extended the findings of Golding's review by delineating the role played by controlling behaviors in the link between IPV and mental health outcomes. Future research could further investigate the mediating effect of controlling behaviors on the association between IPV and survivors' mental health.

Previously, studies that used Johnson's (2008) typology to identify abusers who were both violent and controlling have revealed a range of findings depending on the sampling method and the nature of the sample. For example, using random sampling in a community sample, 17% of the woman participants reported having been abused by an intimate partner who was both

violent and controlling (Leone, Johnson, Cohan, & Lloyd, 2004). In another study, 29% of women recruited from shelters, community, and the courts reported history of IPV by partners who were also controlling (Johnson, 1999). The composition of the sample in the present study may also have affected the results. With 100 women recruited from the shelters and 52 from the FCPSUs, the sample was primarily a clinical one for whom the experience of IPV would likely be severe enough to warrant the seeking and provision of formal assistance. This may explain why such a high number of the women (nearly half of them) reported having been abused by a controlling partner in the qualitative analysis. Such finding, however, should be treated with caution. In the absence of a representative sample, it would be inappropriate to generalize the finding and assume that almost half of the IPV in Hong Kong was perpetrated by violent and controlling partners.

The qualitative data elicited from the 200 interviews are a strength of this study and have provided rich information about the context of violent Chinese intimate relationships hitherto unreported. The women have confirmed, as previously suggested for non-Chinese IPV survivors (e.g., Dutton, 1996; Edleson & Tolman, 1992), that the measurement of violent acts alone cannot adequately explain the violence in intimate relationships. Indeed, for nearly half of the women in this study, their partners' violent behaviors were not mindless acts but were a means to gain control over them, as previously suggested by Johnson (2008).

Limitations of this study include the use of self-reports, which are liable to erroneous recall and social desirability, thus affecting the accuracy of the women's reports. Despite recruiting participants from all districts in Hong Kong, the small sample size and convenience sampling limit the generalizability of the findings. Also, as mentioned earlier, the composition of the sample may have affected the results. To more accurately assess the proportion of abusers who are both violent and controlling in the community, a population-based, representative sample should be used in future studies. Also, as the information was elicited from the participants during a single period of data collection, changes over time (e.g., partner's use of controlling behaviors) cannot be inferred. Therefore, a longitudinal study, though more costly and complex to implement, would allow researchers to examine the pattern and change of the partner's use of controlling behaviors, with the possibility of predicting future trends.

In conclusion, using a qualitative–quantitative design in a sample of abused Chinese women, we have shown that the C-CBS-R has utility as a measure of controlling behaviors, with a cutoff score to distinguish high from low levels of control in violent Chinese intimate relationships.

Appendix

Controlling Behaviors Scale (CBS-R)

Here is a list of things *you and your partner* may have done during your relationship (Graham-Kevan & Archer, 2008). Taking the previous year, or last year of the relationship, indicate how frequently each of you did the following. Using the following code, circle the number which best describes your actions toward your partner and your partner's actions toward you.

   0 = *never*, 1 = *rarely*, 2 = *sometimes*, 3 = *often*, 4 = *always*

	Partner Did This to Me	I Did This to Partner
Economic control		
1. Made it difficult for the other to work or study	0 1 2 3 4	0 1 2 3 4
2. Control the other's money	0 1 2 3 4	0 1 2 3 4
3. Keep own money matters secret	0 1 2 3 4	0 1 2 3 4
4. Refuse to share money/pay fair share	0 1 2 3 4	0 1 2 3 4
Threatening control		
5. Threaten to harm the other one	0 1 2 3 4	0 1 2 3 4
6. Threaten to leave the relationship	0 1 2 3 4	0 1 2 3 4
7. Threaten to harm self	0 1 2 3 4	0 1 2 3 4
8. Threaten to disclose damaging or embarrassing information	0 1 2 3 4	0 1 2 3 4
Intimidating control		
9. Try to make the other do things he or she did not want to	0 1 2 3 4	0 1 2 3 4
10. Use nasty looks and gestures to make the other one feel bad or silly	0 1 2 3 4	0 1 2 3 4
11. Smash the other one's property when annoyed/angry	0 1 2 3 4	0 1 2 3 4
12. Be nasty or rude to other one's friends or family	0 1 2 3 4	0 1 2 3 4
13. Vent anger on pets	0 1 2 3 4	0 1 2 3 4
Emotional control		
14. Try to put the other down when getting "too big for his or her boots"	0 1 2 3 4	0 1 2 3 4
15. Show the other one up in public	0 1 2 3 4	0 1 2 3 4
16. Tell the other he or she was going mad	0 1 2 3 4	0 1 2 3 4
17. Tell the other he or she was lying or confused	0 1 2 3 4	0 1 2 3 4
18. Call the other unpleasant names	0 1 2 3 4	0 1 2 3 4

	Partner Did This to Me	I Did This to Partner
Isolating control		
19. Try to restrict time one spent with family or friends	0 1 2 3 4	0 1 2 3 4
20. Want to know where the other went and who he or she spoke to when not together	0 1 2 3 4	0 1 2 3 4
21. Try to limit the amount of activities outside the relationship the other engaged in	0 1 2 3 4	0 1 2 3 4
22. Act suspicious and jealous of the other one	0 1 2 3 4	0 1 2 3 4
23. Check up on the other's movements		
24. Try to make the other feel jealous	0 1 2 3 4	0 1 2 3 4
Using children (for respondents with children)		
25. Make the other feel bad about the children	0 1 2 3 4	0 1 2 3 4
26. Use the children to pass messages to the other when he or she did not want to speak to him or her	0 1 2 3 4	0 1 2 3 4
27. Threaten to take the children away from the other	0 1 2 3 4	0 1 2 3 4
28. Argue in front of the children	0 1 2 3 4	0 1 2 3 4
29. Strike, push, or kick the other in front of the children	0 1 2 3 4	0 1 2 3 4
Minimizing (all respondents)		
30. Falsely accuse the other of using violence	0 1 2 3 4	0 1 2 3 4
31. Made the strikes seem worse than they were	0 1 2 3 4	0 1 2 3 4
32. Blame the other for being hit	0 1 2 3 4	0 1 2 3 4

Declaration of Conflicting Interests

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Nicola Graham-Kevan is a Reader in the Psychology of Aggression at the University of Central Lancashire and a Professor of Clinical Psychology at Mittuniversitetet. She is also a Chartered Psychologist, Associate Fellow of the British Psychological Society and a Fellow of the International Society Research on Aggression.