

Psychometric Properties of the Social-Conflict Scales for Chinese Adolescents

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ABSTRACT. Despite the gradual increase of research on social conflicts, psychometric characteristics of social-conflict scales have not been extensively examined, especially in the adolescent population. In this study, the internal consistency, test-retest reliability, and criterion-related validity of 2 established social-conflict scales were examined in a sample of 581 Chinese adolescents. There were high internal consistencies and test-retest reliabilities for both the Family Conflict Scale and the Friend Conflict Scale. The scales were significantly related to appraisals of the quality of social relations, psychological distress, and trait anxiety.

ALTHOUGH SOCIAL RELATIONS have been widely considered a source of functional support, many social relations can give rise to conflicts as well. Rook (1984) proposed that negative characteristics of social relations may also be a major precipitant of depression. Negative characteristics of social relations generally include obnoxious and confrontational interactions such as rejection, disagreement, criticisms, and broken promises (see Pagel, Erdly, & Becker, 1987; Rook 1984). Problematic social relations may be even more distressing than no social relations at all.

Negative features of social relations have been extensively investigated (Lepore, 1992; Rook, 1990; Shinn, Lehmann, & Wong, 1984; Stephens, Kinney, Norris, & Ritchie, 1987). Rather than extremes of a single dimension, social support and social conflicts have been consistently found to be relatively independent of each other (Fiore, Becker, & Coppel, 1983; Pagel et al., 1987; Rook, 1984; Stephens et al., 1987). Such results revealed the necessity to examine both the positive (support) and negative (conflict) aspects of social relations. The influence of social conflicts is not confined to adults; it also extends to the adolescent population. Strong needs for intimacy and acceptance in adolescents may indicate that both social support and social conflicts are particularly important dur-

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ing adolescence. In previous research, "stressful social process" such as disturbed family relations (Gersten, Langer, Eisenberg, & Simcha-Fagan, 1977) and peer rejection (Burt, Cohen, & Bjorck, 1988; Lepore, 1992) were associated with emotional and behavioral maladjustment in adolescents.

Despite the gradual increase of interest in social conflicts, psychometric properties of social-conflict scales have not been extensively examined. Methodological ambiguities may hamper development of social-conflict research because such research relies heavily on self-support measures to tap the extent of conflicts among network members. Unknown test-retest reliability creates an obstacle to comparison and generalization of different findings. Also, although most social-conflict scales yield acceptable face validity, the absence of a significant link between social conflict scales and criterion measures makes it difficult to determine whether social-conflict scales actually assess what they are supposed to assess.

In response to the need to examine psychometric properties of social-conflict scales, in the present study I examined the internal consistency, test-retest reliability, and criterion-related validity of established social-conflict scales in adolescents. In adolescent research, it is important to examine both family and peer relations because exclusion of any sources may contribute to an incomplete picture of adolescents' social relations (Windle, 1992). Therefore, I examined the psychometric properties of both family-conflict and peer-conflict scales among a sample of Chinese adolescents.

Method

Participants

The participants were 581 Chinese students (Grade 7 to Grade 12) recruited from four schools in Hong Kong. To obtain a representative sample of Hong Kong adolescents, I selected the schools on the basis of their characteristics (e.g., school level, geographical area) and the characteristics of their students (e.g., family socioeconomic status, academic or other achievements). The sample comprised 336 girls and 241 boys with an age range of 12 to 18 years ($M = 15.54$ years; $SD = 1.68$). Four participants did not report their sex; 6 participants did not report their ages. Participation was voluntary and required both student and parental consent.

Materials

Target measures. I used the Family Conflict Scale (Fam-CS) of the Family Environment Scale (FES; Moos & Moos, 1981) to assess negative family interactions. The Family Conflict Scale consists of eight items tapping "the amount of openly expressed anger, aggression, and conflict among family members" (Moos & Moos, 1986, p. 2). Higher family-conflict scores indicate higher levels of con-

flict and tension among family members. The Chinese version of the Family Environment Scale is a reliable measure of family relations (Ma & Leung, 1990).

I used the Friend Conflict Scale (Fr-CS; Lepore, 1992) to measure peer relations. The Friend Conflict Scale comprises eight items that describe the extent of distress, disagreements, and anger experienced in relations with peers. Higher friend-conflict scores indicate higher levels of conflict and tension experienced among peers. The internal reliability of the Friend Conflict Scale is high (Lepore).

Criterion measures. I constructed and used the Appraisal Scale of Social Relations to examine the perceived quality of social relations. The scale consists of eight items that measure perceived closeness and harmony as well as satisfaction in social relations among network members. The participants rated each item on 7-point scales. Higher appraisal scores indicate higher levels of perceived closeness, harmony, and satisfaction in social relations.

In the present study, I adopted the Chinese version of the Beck Depression Inventory (BDI; Chan & Tsoi, 1984) to measure psychological distress. I also adopted a consistent weighted score of 0, 1, 2, or 3 as recommended by Beck, Ward, Mendelson, Mock, and Erbaugh (1961) to score the BDI items. The Chinese version of the BDI has been shown to have good reliability (Shek, 1990) and good criterion-related validity (Shek, 1991) among Chinese adolescents. Higher BDI scores indicate higher levels of psychological distress.

I used the Chinese version of the T-Anxiety Scale of the State-Trait Anxiety Inventory (STAI Form Y-2; Ye, 1990) to assess general feelings of tension, apprehension, and nervousness. The scale comprises 20 statements, 11 of which are anxiety-present items and 9 of which are anxiety-absent items. Respondents give 4-point ratings to each statement. The Chinese version of the STAI has been found to be both reliable and valid (Shek, 1988) among Chinese adolescents. Higher scores on the T-Anxiety Scale indicate a higher level of trait anxiety.

Procedure

Initially, data were obtained through group administration of a packet of questionnaires in class. To establish test-retest reliability, both the Fam-CS and the Fr-CS were readministered to the same participants 1 week later. In both sessions, a trained research assistant gave instructions to the participants. The participants were allowed to take as much time as needed to complete the questionnaires.

Results

Reliability Analyses

According to analyses of internal consistency (Cronbach's α), the Appraisal Scale of Social Relations ($\alpha = .85$), the Chinese version of the BDI ($\alpha =$

.87), and the T-Anxiety scale of the STAI ($\alpha = .90$) were reliable criterion measures. The results were highly similar to those of previous Chinese studies (Chan & Tsoi, 1984; Shek, 1988). Moreover, the present results revealed high internal consistencies for both the Fam-CS ($\alpha = .89$) and the Fr-CS ($\alpha = .88$).

For test-retest reliability, the correlation coefficient between Time 1 and Time 2 Fam-CS scores was .84 ($p < .001$); between Time 1 and Time 2 Fr-CS scores, it was .81 ($p < .001$). These results indicate that both the Fam-CS and the Fr-CS display high test-retest reliabilities over a 1-week period.

Criterion-Related Validation Analyses

I examined Pearson product-moment correlations among the Family Conflict Scale, the Friend Conflict Scale, and the criterion measures (i.e., Appraisal Scale of Social Relations, BDI, and T-Anxiety Scale). Levels of family and friend conflict were substantially correlated with the Appraisal Scale of Social Relations, $r_s = -.54$ and $-.68$, respectively, $p_s < .001$. Also, both the family-conflict and the friend-conflict scores were significantly associated with BDI scores, $r_s = .35$ and $.40$, respectively, $p_s < .001$.

Moreover, I examined relationships among the criterion measures and individual items of the conflict scales. For Fam-CS, all items were significantly related to appraisals of social relational quality (r_s ranged from $-.43$ to $-.64$, $p_s < .001$), psychological distress (r_s ranged from $.20$ to $.35$, $p_s < .001$), and trait anxiety (r_s ranged from $.15$ to $.28$, $p_s < .001$). For Fr-CS, all items were also significantly associated with appraisals of social relational quality (r_s ranged from $-.31$ to $-.49$, $p_s < .001$), psychological distress (r_s ranged from $.23$ to $.36$, $p_s < .001$), and trait anxiety (r_s ranged from $.20$ to $.31$, $p_s < .001$).

Discussion

The Chinese versions of the Family Conflict Scale and the Friend Conflict Scale were reliable. The results are similar to those of Western research on internal consistencies of social-conflict scales (Lepore, 1992) and social-support scales (O'Reilly, 1995; Vaux et al., 1986).

The significant relationships between the two conflict scales and the Appraisal Scale of Social Relations indicate that the social-conflict scales assess perceived harmony, closeness of social relations, and satisfaction with the quality of relations. Higher levels of social conflict were related to lower levels of perceived harmony, closeness, and satisfaction with social interactions. Both the Family Conflict Scale and Friend Conflict Scale are valid measures of the negative aspect of social relations for Chinese adolescents.

Moreover, conflicts with family were only moderately correlated with conflicts with friends ($r = .47$). Those two scales are similar because both assess negative quality of social relations, but the scales are also different because they refer

to distinct sources of social relations. High levels of family conflict are not necessarily related to high levels of peer conflict, and vice versa. To examine social conflicts more comprehensively, particularly in adolescents, future researchers should focus on relations with both family and friends.

In summary, both the Family Conflict Scale and the Friend Conflict Scale were reliable and valid measures of conflictive social relations among Chinese adolescents. Caution should be exercised, however, to avoid generalizing the present findings to other Chinese populations such as adults, older people, clinical populations, and to non-Chinese populations.

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