

Role of Perceived Social Support on Depression in Chinese Adolescents: A Prospective Study

Examining the Buffering Model

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In response to the dearth of attempts to examine functions of perceived social support on depression in Chinese adolescents, a prospective study was conducted to examine the relationship among stressful life events, perceived social support, and depression. The present results provided support for the buffering model, indicating that the function of perceived social support in mitigating subsequent depression was prominent only under high stress levels. These results were discussed in terms of the socialized role of Chinese adolescents, as well as the function of esteem enhancement of perceived social support in alleviating depression. Reciprocal relationships between initial depression levels and subsequent levels of social support were also discussed. Possible counseling and prevention programs for Chinese adolescents are proposed.

Recent Chinese research revealed that more than 20% of Chinese adolescents had symptoms of depression (e.g., Boys' and Girls' Clubs Association of Hong Kong, 1992; Shek, 1991a). As the underlying causes are scrutinized, depression for Chinese adolescents is most commonly related to problematic relations with family, friends, or romantic partners (Liang, Zhao, & Zheng, 1992). These findings indicate that the influence of social relations is critical to the well-being of Chinese adolescents. As in the West, adolescence is the period in which need for attachment is especially strong among Chinese youngsters (Ko, 1974). Hence, possible impact of social support on Chinese adolescents should be investigated.

The importance of social relations to the Chinese is not surprising. The Chinese people generally do not perceive themselves as individuals functioning independently in society, but rather as a part of their social network (Yang, 1981). Interpersonal dependency is emphasized in Chinese society. For Chinese adolescents, helpfulness is identified as a major dimension in person perception (Yik & Bond, 1993), as well as an ideal quality of close friends (Cheng, Bond, & Chan,

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1995). Having a broad social network with supportive relationships is thus socially desirable for the Chinese (Bond & Hwang, 1986). To examine whether social support is functional to the "social-oriented" Chinese, Chinese research on social support and stress-related depression began to sprout in the last decade.

It is noteworthy that previous Chinese studies only emphasized a single antecedent of depression. On the one hand, Chan and associates (Chan & Chan-Ho, 1983; Chan, Chan-Ho, & Chan, 1984) examined perception of the impact of various stressful life events among Chinese people and the relationship between stressful life events and depression. Although a significant association was found between stressful life events and depression, their research did not include the psychosocial variable of social support. Hence, the possible mediating or moderating role of social support in relation to the stress-depression link still remained unknown in the Chinese case. On the other hand, social support from family (Chan, 1983; Huang, Hwang, & Ko, 1983) and friends (Huang et al., 1983) was found to be negatively correlated with depressive scores among the Chinese. However, these studies failed to indicate whether the negative relationship between social support and depression would hold regardless of stress levels or only under a specific stress level in the Chinese population.

In fact, how social support alleviates stress-related depression as well as under what situation it applies to the Chinese case are two different but inseparable issues to be explored. Omission of the former question will miss information concerning the beneficial psychosocial influence in encountering potential stressors. On the other hand, the generalizability of the beneficial effects of social support will remain unknown if the latter question is neglected. Hence, in order to have a more complete understanding of the depression-attenuating mechanisms of social support, the relationship among stressful life events (situational variable), social support (psychosocial variable), and depression (outcome variable) should be examined together.

Additionally, previous Chinese research on social support only focused on adults. The possible functions of social support on the adolescent population are neglected. Besides, prior Chinese studies on depression only employed cross-sectional designs. Data concerning stressful life events, social support, and depression are obtained at a single point of time. Two important methodological problems were commonly found in cross-sectional research: the problem of directionality among the variables, that is, the possibility of reverse causal relationship (e.g., Compas, Wagner, Slavin, & Vannatta, 1986; Dohrenwend, Dohrenwend, Dodson, & Shrout, 1984); as well as the possible contamination of relationship among self-report measures of stressful life events, social support, and depression obtained at the same time (Slavin & Compas, 1989). To address these inadequacies, the present research aims to examine the relationship among stress, social support, and depression for Chinese adolescents with a prospective design.

In response to Cheung's (1986) advocacy that "[Chinese] studies need to be based on theories, in order to advance the understanding of Chinese psychopathology" (p. 212), the present research aims to explore the buffering model of social support that is an established model commonly adopted in examining the function of social support in alleviating stress-related depression in Western research (Cohen & Wills, 1985). The buffering model posits that social support mitigates the adverse effects of stressful life events on depression only in times of high stress. The stress-attenuating function of social support is attributed to assurance of self-worth and assistance provision in times of need only.

The function of social support is commonly viewed to diminish helplessness feelings and to boost self-esteem, which in turn reduce stress-related depression (Becker & Schmalings, 1991). Reviewing the Chinese literature on self-esteem, there is some evidence that may provide support for the buffering model: As the situational variable of stressful life events is examined, higher levels of undesirable life events are related to lower self-esteem (Huang et al., 1983). On the other hand, high self-esteem is related to harmonious and supportive social relations (Chang, 1982). Taking these two perspectives together, the availability or expectation that social others will provide support may have a beneficial effect on the self-esteem of Chinese adolescents in times of high stress when their self-esteem becomes lower than usual. Since low stress levels were found to have little or even no impact on the self-esteem of the Chinese (Huang et al., 1983), the beneficial effect on self-esteem and depression may be weaker in times of low stress. Therefore, the need for social support may not be strong in times of low stress. Such situational functions of social support indicate that the buffering model may be an appropriate model for explicating the relationship among stressful life events, social support, and depression in Chinese adolescents.

To summarize, in response to the dearth of published work examining the relationship among stressful life events, social support, and depression in Chinese adolescents, the present research attempts to fill this gap by examining the buffering model of social support in Chinese adolescents. Social support was hypothesized to mitigate stress-related depression only under high stress levels.

Method

Participants

Participants were 249 Chinese students from Grades 7 to 9, recruited from two urban and two suburban schools in Hong Kong. The sample was comprised of 146 females and 103 males. The mean age of the respondents was 14.23 ($SD = 0.78$). Participation was voluntary and required consent from both parents and

students. In the consent letter, participants and their parents were clearly informed that the participants' identity would be disclosed if their results revealed that their well-being would benefit from seeing the school counselor. A consent rate of 96% was obtained. All questionnaires were administered in class under the direction of a research assistant.

Design

A prospective design was adopted in the present study. Panel data were collected at two points in time that were 6 months apart. Ninety-three percent of students participated at both waves of the study. Students who participated in both sessions did not differ significantly on any Time 1 and Time 2 measures from those who dropped out of the Time 2 study.

Measures

Perceived social support. The Social Support Appraisals Scale (SS-A; Vaux et al., 1986) was employed to tap perceived social support. The SS-A is a measure of differentiated support appraisals, specifically regarding perceptions of being loved and cared for, respected and esteemed, as well as involved with others. The SS-A scores reflect the extent to which the respondents believed themselves to be loved by, respected by, and involved with family, friends, and others (Vaux, 1987; Vaux et al., 1986). The Chinese version of the SS-A was found to have good internal consistency (Ma, Chan, Chi, & Sham, 1990).

Since family and peers are two key components of adolescents' social environment (Barrera & Garrison-Jones, 1992), the present study examined family and peer support separately. Items tapping perceived family support (eight items) and perceived peer support (seven items) were included. Respondents indicated agreement or disagreement along a 4-point scale for each statement. Higher family and peer support scores indicate appraisals of greater amount of love, respect, and involvement with family members and peers, respectively. In the present study, the internal consistency of the SS-A was good ($\alpha = .85$; family SS $\alpha = .81$; peer SS $\alpha = .90$).

Stressful life events. The Chinese Adolescent Life Event Scale (CALES; Cheng, 1995) was employed to assess the amount of stress experienced by respondents. The CALES is a self-report measure specifically designed for Chinese adolescents. It consists of 45 life event items. The CALES displays good test-retest reliability and good criterion validity (Cheng, in press).

The life events data were scored by unit scores (a simple unweighted count of events) because the unit scoring method was deemed more efficient and predictive than the normative weighting method (e.g., Lei & Skinner, 1980; Swearingen & Cohen, 1985). Also, the idiographic approach that instructed

respondents to give subjective ratings to the stressfulness of the events is not preferred because depressed respondents may attribute their disruptiveness to recent stressful life events even if these events are just coincidental with their depression (e.g., Brown, 1981; Dohrenwend & Dohrenwend, 1981). In this case, the disruptiveness of events on depressed respondents will be overestimated. Higher unit scores indicate greater amount of stressful life events experienced within the past 6 months.

Depression. The Chinese Beck Depression Inventory (C-BDI; Chan & Tsoi, 1984) was translated from the English BDI (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961). As in the English BDI, the C-BDI consists of 21 items in which respondents choose one of four alternative statements that best describes how they have felt for the past week. Among various measures of depression available in the Chinese language, the C-BDI was adopted to measure depression in the present study because it is self-administered, relatively short, capable of providing quantitative information for assessing depth of enduring depression, and, most importantly, is well validated in the Chinese culture. The C-BDI was found to have good reliability (Shek, 1990) and good criterion validity (Shek, 1991b).

A consistent weighted score of 0, 1, 2, or 3 as recommended by Beck et al. (1961) was adopted for scoring the C-BDI items. Higher C-BDI scores indicated a greater degree of depression experienced within the past week. The C-BDI displays good internal consistency in the present study ($\alpha = .80$).

Procedure

Questionnaires were administered in class during a regular lesson by a research assistant who oriented them with instructions. Research participants were allowed to take as much time as they needed to complete the questionnaires. Difficulties faced by participants while filling in the questionnaires were discussed immediately with the research assistant after the session.

Results

Descriptive Statistics

MANOVA was employed to examine between-subject effects of gender, age, and grade on four variables, namely stressful life events, family support, peer support, and depression. A significant overall effect was found for gender, $F(4, 244) = 12.53, p < .01$.² However, no significant effect was found for grade, nor the Grade \times Gender interaction among the criterion variables. In comparison

²Two-tailed tests of significance were used throughout.

Table 1

Means and Standard Deviations for Life Events, Perceived Support, and Depression of Chinese Adolescents

Time and measure	Females (<i>n</i> = 146)		Males (<i>n</i> = 103)	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Time 1				
Stressful life events	4.56	3.43	4.29	3.94
Family support	2.51	0.74	2.48	0.76
Peer support	2.72	0.89	2.46	0.95
Depression	9.23	4.04	6.95	3.74
Time 2				
Stressful life events	5.07	4.04	4.61	3.60
Family support	2.39	0.74	2.35	0.71
Peer support	3.03	0.81	2.63	0.92
Depression	9.12	4.66	5.60	4.43

to male adolescents, female adolescents in general had higher levels of peer support at Time 1, $F(1, 247) = 4.88, p < .05$; and at Time 2, $F(1, 228) = 11.97, p < .01$. Additionally, female adolescents in general reported higher levels of depression both at Time 1, $F(1, 247) = 20.34, p < .01$; and at Time 2, $F(1, 235) = 17.47, p < .01$. No gender differences were found in the amount of stressful life events experienced nor in the levels of family support. Analyses were conducted separately for female and male adolescents.

Table 1 presents means and standard deviations of the major variables for female and male adolescents. Pearson product-moment correlations among stressful life events, family support, peer support, and depression scores are shown in Table 2.

Prevalence Rate of Depression

On the basis of the depression scores, research participants were found to exhibit varying degrees of current depression: 55.0% of the respondents reported depression levels in the normal range ($n = 137$, C-BDI score = 9), 39.8%

Table 2

Zero-Order Correlation Coefficients Among Adolescent Measures at Time 1 and Time 2

Time and measure	1	2	3	4	5	6	7	8
Time 1								
1. Stressful life events	—	.05	.12	.22**	.50***	.13	.22**	.25**
2. Family support	-.07	—	.22**	-.27***	.05	.43***	.17	-.27***
3. Peer support	.16	.32**	—	-.40***	.09	.23**	.49***	-.48***
4. Depression	.14	-.31**	-.34***	—	.21**	-.08	-.15	.72***
Time 2								
5. Stressful life events	.39**	-.10	-.13	.19	—	.02	.10	.22**
6. Family support	.09	.42**	.26**	-.06	.06	—	.28***	-.27***
7. Peer support	.20	.01	.40***	-.02	.19	.14	—	-.32***
8. Depression	-.04	-.41***	-.57***	.65***	.17	-.05	-.30**	—

Note. Correlations above the diagonal are for female adolescents. Correlations below the diagonal are for male adolescents.
** $p < .01$. *** $p < .001$.

of the respondents reported mild levels of depression ($n = 99$, C-BDI score = 10-15), 5.2% of the respondents reported mild to moderate levels of depression ($n = 13$, C-BDI score = 16-22), and none of them reported moderate to severe levels nor severe levels of depression. The present results were discussed with the guidance teachers of the schools. Students with suicidal intentions or with moderate to severe levels of depression were referred to the school counseling unit.

Regression Analyses

To evaluate whether family and peer support would buffer adverse effects of stressful life events on depression, the Stressful Life Events \times Social Support interaction was examined. According to Cohen and Cohen (1983), an interaction between two variables was represented by multiplying these two variables and then linearly partialling out each variable from the product. Hierarchical multiple regression was employed because this statistical method allows for the testing of interactions by partialling out main effects. Buffering effects were indicated by significant Stressful Life Events \times Social Support interactions on depression (e.g., Dixon, Heppner, Burnett, & Lips, 1993; House, 1981).

Female adolescents. Prospective analyses were conducted using Time 1 variables as predictors of Time 2 depression after statistically controlling for levels of depression at Time 1. In the prospective regression model, the initial score of depression (Time 1) was entered first into the regression equation. The predictor variable of stressful life events was then entered, followed by family support and peer support. After entering the main effects, the two interaction terms Stressful Life Events \times Family Support and Stressful Life Events \times Peer Support were entered into the regression model. All of the interaction terms were calculated as a simple cross-product of the two main effects. Alternative models with reverse order of family support and peer support entering into the regression equation at each step did not alter the resultant parameter estimates.

Table 3 presents the results of regression analyses for female adolescents. The prospective analyses revealed significant main effects of stressful life events for Chinese female adolescents, $F(1, 144) = 5.55, p < .05$. Moreover, significant interaction effects were found between stressful life events and family support, as well as between stressful life events and peer support, $F_s > 2.75, p_s < .05$. Collectively, this model accounted for 58% of the variance in depression scores, $F(7, 138) = 27.45, p < .01$.³

³For female adolescents, data were standardized and transformed into z scores and then reanalyzed by hierarchical multiple regression. Similar patterns of results were found, except for the main effect of peer support which changed from nonsignificant to significant, $F(1, 144) = 15.48, p < .01$.

Table 3

Hierarchical Multiple Regression Analyses for Time 1 Variables Predicting Time 2 Depression for Chinese Adolescents

Variable	Females (<i>n</i> = 146)				Males (<i>n</i> = 103)			
	<i>B</i>	<i>SE B</i>	β	<i>R</i> ²	<i>B</i>	<i>SE B</i>	β	<i>R</i> ²
Step 1								
Time 1 depression	0.66	0.08	0.58**	.50**	0.42	0.10	0.37**	.36**
Step 2								
SLE	1.61	0.68	1.21*	.01	1.93	0.73	1.76**	.01
Step 3								
FS	-0.02	0.07	-0.02	.01 ^a	-0.03	0.07	-0.04	.02 ^a
PS	-0.07	0.07	-0.10		-0.13	0.08	-0.20	
Step 4								
SLE \times FS	-0.06	0.03	-1.04*	.06*** ^a	-0.09	0.04	-1.69*	.12*** ^a
SLE \times PS	-0.05	0.03	-0.81*		-0.10	0.04	-1.87*	
Step 5								
SLE \times FS \times PS	0.01	0.01	0.68	.01	0.03	0.02	1.84	.01

Note. SLE = stress life events; FS = family support; PS = peer support.

^aThese figures represent the *R*² for the corresponding step due to simultaneous entering of the variables of family support and peer support.

p* < .05. *p* < .01.

The present results indicate that the interaction effect between stress and social support was significant for female adolescents. Regression lines depicting BDI scores as a function of the Stressful Life Events \times Social Support are shown in Figure 1.⁴ As shown in Figure 1, the mean depression score of the high stress-low support group (i.e., 11.60, which corresponds to mild levels of depression) was substantially higher than the other three groups which all had mean scores within the normal level of depression (i.e., below 9).

⁴For female adolescents, patterns of the Stressful Life Events \times Family Support interaction were not significantly different from those of the Stressful Life Events \times Peer Support interaction. An aggregated score of social support (obtained by summing family support scores and peer support scores) was used in further analyses of significant interaction effects to avoid repetition.

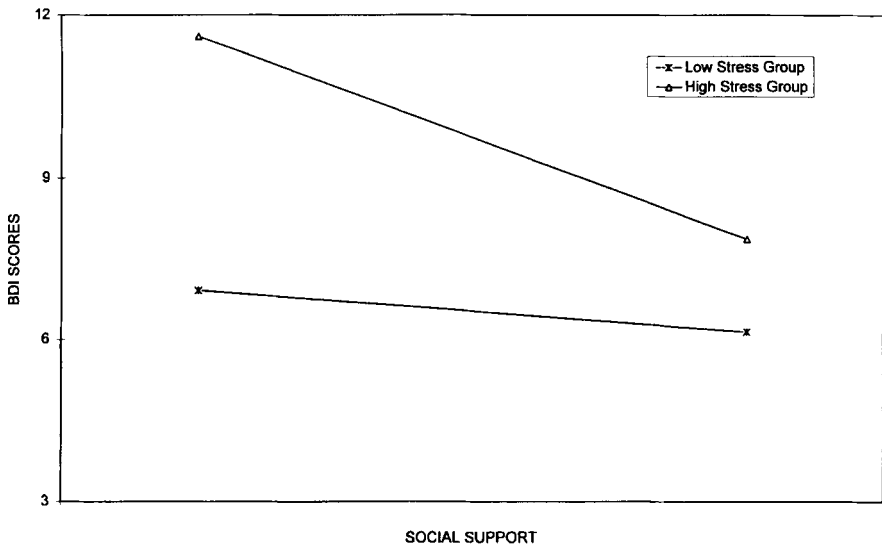


Figure 1. Regression lines depicting depression scores as a function of the interaction between stressful life events and social support for female adolescents.

To obtain a detailed examination of the significant interaction effect, the method of analysis for simple main effects was employed (Keppel, 1991; Kirk, 1982): Under low stress levels, no significant differences were found in depression scores between female respondents who reported lower levels of social support (mean C-BDI score = 6.92) and those who reported higher levels of social support (mean C-BDI score = 6.14). Under high stress levels, depression scores of female respondents who reported lower levels of social support (mean C-BDI score = 11.60) were significantly higher than those who reported more social support (mean C-BDI score = 7.88), $F(1, 143) = 28.91$, $p < .01$. Although lower levels of social support were associated with relatively higher levels of depression in both the low-stress and high-stress groups, the significant Stressful Life Events \times Social Support interaction was indicated by the difference in magnitude of effect (i.e., greater for the high-stress group). Such a result revealed that interactions between stressful life events and family support as well as between stressful life events and peer support in the first wave predicted changes in subsequent levels of depression for female adolescents. These results provide support for the buffering model.

Male adolescents. Procedures for the prospective regression analyses of male adolescents were identical to those of female adolescents. Table 3 presents the

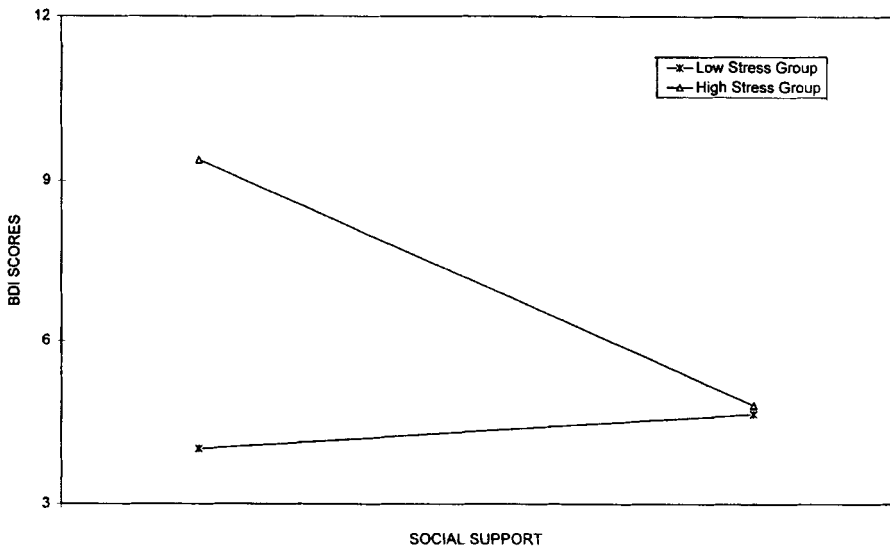


Figure 2. Regression lines depicting depression scores as a function of the interaction between stressful life events and social support for male adolescents.

results of regression analyses for male adolescents. As shown in Table 3, the prospective results revealed a significant Stressful Life Events \times Peer Support interaction, $F(1, 101) = 4.92, p < .05$. Collectively, this model accounted for 52% of the variance in depression scores, $F(7, 95) = 14.58, p < .01$.⁵

The present results indicated that the interaction effect between stress and social support was significant for male adolescents. Regression lines depicting BDI scores as a function of the Stressful Life Events \times Social Support interaction are shown in Figure 2.⁶ As shown in Figure 2, the mean depression score of the high stress-low support group (i.e., 9.39) was substantially higher than the mean scores of other three groups (i.e., ranging from 4.00 to 4.81). Under

⁵For male adolescents, standardization of data was achieved by transforming the raw data into z scores. The transformed data were then reanalyzed by hierarchical multiple regression. Similar patterns of results were found, with the exception of the significant main effects of family support, $F(1, 101) = 6.16, p < .05$, and peer support, $F(1, 101) = 7.96, p < .01$.

⁶For male adolescents, patterns of the Stressful Life Events \times Family Support interaction were not significantly different from those of the Stressful Life Events \times Peer Support interaction. An aggregated score of social support (obtained through the summation of family support scores and peer support scores) was used in further analyses of significant interaction effects to avoid repetition.

low levels of stress, it is expected that participants would have a low level of depression, regardless of the amount of social support received. However, the amount of social support received did make a great difference in times of high stress. Those who received less support from social others in times of high stress were more vulnerable to depression.

To further examine the significant interaction effect, the method of analysis for simple main effects was again employed: Under low stress levels, depression scores of male respondents who reported lower levels of social support (mean C-BDI score = 4.00) did not differ significantly from those who reported higher levels of social support (mean C-BDI score = 4.65). Under high stress levels, depression scores of female respondents who reported lower levels of social support (mean C-BDI score = 9.39) were significantly higher than those who reported higher levels of social support (mean C-BDI score = 4.81), $F(1, 101) = 30.94, p < .01$. Although a nonsignificant difference in depression levels was found in the low-stress group, male respondents with lower levels of social support were found to have significantly higher depression levels than those with higher levels of social support under high stress levels. These results indicated that, under high stress levels, social support is related to an alleviation of depression several months later for male adolescents. These results are consistent with the buffering hypothesis.

Reciprocal relationships. The buffering model implicitly assumes that both stress and social support are predictors of subsequent depression. However, the prospective study of Compas et al. (1986) revealed that these variables were also reciprocally related to each other. Regression analysis was again employed to address the possibility of reciprocal relationships among variables. All of the possible directions among variables were explored. Results revealed that reverse relationships between initial (Time 1) levels of stress and subsequent (Time 2) depression levels, as well as between initial depression levels and subsequent levels of social support were significant for female adolescents, $F_s > 9.92, p_s < .01$. For male adolescents, a reverse relationship between initial levels of depression and subsequent levels of social support was also significant, $F(1, 101) = 10.36, p < .01$.

Discussion

The present results provide support for the buffering role of social support in Chinese adolescents. Social support was found to be a moderator between stressful life events and depression in times of high stress for Chinese adolescents. On the one hand, the results reveal that both perceived family support and perceived peer support were found to mitigate stress-related depression in times of high stress levels. On the other hand, the results also suggest that

Chinese adolescents who encountered high levels of stressful life events but lacked parental and peer support were more at risk for high levels of depression.

Expectations of Independence Versus Dependence for Chinese Adolescents

In a review of previous Western literature on the functions of social support, the buffering role of social support was found in adult research (e.g., Cohen & Hoberman, 1983; Revenson & Majerovitz, 1991) but was not found in adolescent research (e.g., Hoffman, Ushpiz, & Levy-Shiff, 1988; Kaplan, Robbins, & Martin, 1983). Results of Western adolescent research consistently reveal that social support is functional in alleviating depression, regardless of stress levels for American adolescents. Such an inconsistency between the results of the present research and those of Western research tends to reveal cultural differences in the socialized role of adolescents.

Adolescence marks the onset of a transition period between childhood and adulthood. In this critical life stage, adolescents not only undergo rapid physiological and muscular growth to attain physical maturity, but also undergo psychological growth to attain the status of an adult. Independence is commonly considered an important index of psychological maturity. For adolescents in Chinese society, network members tend to make contradictory expectations of adolescents (Ko, 1974, 1976): After entering junior high school, Chinese adolescents are expected to be independent like adults. However, social others also regard adolescents as children and are reluctant to see them perturbed by problems. Rather than just standing aside, social others usually are desperate to offer help to adolescents when problems emerge. Hence, most Chinese adolescents are caught in a dilemma of whether they should be independent or dependent.

One way to resolve such a dilemma is by attempting to cope with problems that are easier to work out by oneself and to depend on social others for assistance in tackling the more arduous ones. Such a strategy may well apply to the present results. The amount of social support is not related to changes in subsequent depression for Chinese adolescents under lower stress levels. They may be capable of coping with the low levels of stress experienced without help from social others. However, the availability of social support did make a significant difference under high levels of stress—in relation to those with less social support, Chinese adolescents with more social support experienced less subsequent depression. Under such a demanding and stressful situation, they may become increasingly dependent on others, and their needs for support from social others may be much stronger. In addition to the depression generated by stress, those who expect that few social others will provide support may feel even more depressed. Such situation-specific needs for social support may

imply that Chinese adolescents are well prepared to utilize social relations as a resource for alleviating stress-related depression.

In summary, although American adolescents are also motivated to be free from parental control (Youniss & Smollar, 1985), they still consider both family and peer support functional at all times. Chinese adolescents are also expected to be independent at an early age, that is, at the onset of adolescence. Chinese adolescents are encouraged by adults to cope with problems by themselves. However, in times when taxing problems arise, they are also encouraged to be assisted by social others. It is the lenient double standard (i.e., situational permissiveness of needs for independence and needs for dependence) concerning the socialized role of Chinese adolescents that may explain the buffering role of social support at a relatively younger age in the Chinese culture.

Esteem-Boosting Functions of Perceived Social Support

The present results indicate that perceived social support functions in mitigating depression only under a specific situation—when a large number of stressful life events are experienced. These results seem to contradict Cheung's (1984) study that Chinese students reported reluctance in seeking help from others when they had problems. Such a contradiction is probably due to two reasons: First, participants in Cheung's study were college students, whereas participants in the present study were adolescents. It is expected that the extent of dependence as well as the needs for social support are larger for adolescents than for college students.

Second, the contradiction may also be attributable to the distinct nature of social support examined in the present study and in Cheung's (1984) study: The present study attempted to examine the stress-buffering role of perceived social support, whereas Cheung's study aimed to examine support seeking in times of need. Although residing in the same global concept of social support, the nature of perceived social support and support seeking are in fact different. Perceived social support refers to *cognitive appraisals* of availability and adequacy of support from social others (e.g., Holahan & Moos, 1981; Procidano & Heller, 1983). Perceived social support assesses individuals' confidence or expectation of the availability of adequate support when needed. On the other hand, support seeking refers to the *actual behavior* of requesting or seeking assistance.

Although perceived social support does not involve receiving material assistance or emotional support from social others, perceived social support is still found to be functional in mitigating stress-related depression in Chinese adolescents. These results are consistent with prior Western findings (e.g., Barrera, 1981; Wilcox, 1981) that subjective appraisals of support were found to be significantly related to psychological well-being. Merely the expectation

that social others will provide adequate support or the belief that one is loved and cared about by social others are deemed as beneficial as, if not more beneficial than, the actual receipt of social support. Bruhn and Philips (1984) stated that a person must perceive support to be available before the support itself can become beneficial. Therefore, social support "is likely to be effective only to the extent it is perceived" (House, 1981, p. 27).

The essential function of perceived social support is that the subjective appraisals and expectations of support lead an individual "to believe that he is cared for and loved, esteemed, and a member of a network of mutual obligations" (Cobb, 1976, p. 300). In this respect, the function of social support is in providing a subjective sense of support, namely love, esteem, security, and appraisal. Moreover, Thoits (1985) described the enduring impact of social others on self-esteem: the "evaluations of one's overall worth, lovability, importance, and competence depend at least in part, upon the perceived appraisals of others with whom one regularly interacts" (p. 58). The esteem-boosting mechanisms of social support lie in the adolescents' beliefs that they are loved and cared about by social others, as well as their expectations that they will obtain support from social others when needed. It is such positive expectations that function in maintaining or boosting adolescents' self-esteem. The esteem enhancement is generally considered a more important factor in reducing anxiety and depression than the other functions of social support (e.g., Cohen, Mermelstein, Kamarck, & Hoberman, 1985; Thoits, 1985).

Consistent with the Western propositions, harmonious social relations were found to be related to higher self-esteem in Chinese adolescents (Chang, 1982). However, if expected support from social others will boost adolescents' self-esteem, why do the present results reveal that perceived social support is functional only in times of high stress? The study of Huang et al. (1983) found a significant negative relationship between stressful life events and self-esteem. Such a negative relationship reveals that the higher the number of stressful life events, the lower the self-esteem of Chinese adolescents. When they experience a great number of stressful life events within a particular period of time, they may become especially vulnerable and their self-esteem may be lowered accordingly. Their needs for social support will become much stronger when stress levels are high, and thus merely expecting an optimistic future in which social others will help them may be especially functional to adolescents in times of high stress.

The proposed function of perceived social support in enhancing self-esteem and alleviating depression can only be considered as tentative. In addition to the outcome variable of depression, further research is needed to include self-esteem as an outcome variable in order to examine any possible changes in esteem under different stress levels or any relationship exists between perceived social support and levels of self-esteem.

Apparently the present results revealing the importance of perceived support seem to contradict those of Cheung's (1984) study revealing the reluctance of seeking support from social support. Chinese adolescents tend to appraise whether or not social support will be available when needed, but they may have no intention to actually seek help from social others in times of support appraisals. Nevertheless, it is possible that these two results can actually be merged to become more meaningful.

On the one hand, close Chinese social relations are governed by the *need rule* (Bond & Hwang, 1986) and thus Chinese adolescents may tend to expect responsibility of social others to help them in times of need. Also, merely expecting that social others will help them can provide them with a sense of control (internal control), and such a sense of control is crucial in boosting self-esteem. On the other hand, help-seeking behavior may not always be functional because the recipient may perceive seeking help as a sign of weakness (Kahn & Antonucci, 1982) or receiving help as owing the helper a favor (Bond & Hwang, 1986). In these respects, help-seeking may even be a further threat to low self-esteem, and thus it is not surprising that Chinese adolescents may expect social support in times of need but are motivated to avoid actually seeking support from social others.

Reciprocal Relationship Between Social Support and Depression

Although the present results are consistent with the buffering model in revealing that initial levels of social support function in mitigating subsequent stress-related depression, a "reverse" negative relationship between initial levels of depression and subsequent levels of social support was also found for Chinese female and male adolescents. Such a result indicates that Chinese adolescents who were initially depressed were likely to perceive less subsequent support. It is possible that depressed Chinese adolescents may exhibit certain characteristics that influence them to expect less support from social others or to appraise a lower quality of their social relations.

In light of interpersonal dependence as a major psychological dimension of depression, depressed adolescents may have stronger needs for dependence due to their deprecatory perception of themselves. Interpersonal dependence is "characterized by feelings of helplessness and weakness, by fears of being abandoned, and by wishes to be cared for, loved, and protected" (Blatt, D'Afflitti, & Quinlan, 1976, p. 383). Depressed adolescents may constantly seek support from others to maintain their frail self-images. As mentioned previously, Chinese adolescents are encouraged to be independent at an earlier age than American adolescents. Social others may doubt the appropriateness of such "hyperdependence" of depressed Chinese adolescents and

may decline to gratify their strong needs for support upon every request. Although social others may not necessarily provide less support, it is possible that depressed Chinese adolescents may perceive less support from social others because of their stronger needs for interpersonal dependence. Such a possibility again reveals that the subjective nature of perceived social support may be affected by the current depression levels of adolescents. Moreover, it is also possible that their constant craving for support may annoy or upset social others who expect them to no longer be as dependent as children. Such annoyance or mismatching of expectations may even elicit actual avoidance or rejection from social others. Social avoidance or rejection may also lead to further appraisals of a lower quality of social relations in depressed Chinese adolescents.

Implications for Counseling and Prevention Programs

The present study reveals that perceived support from social others is functional in times of high stress, thus providing support for the buffering model. These results are consistent with cognitive models of stress and coping (Folkman, Schaefer, & Lazarus, 1979; Lazarus & Launier, 1978) as well as the social-cognitive model of depression (Dodge, 1993) that highlight the importance of subjective appraisals of potentially stressful situations and of the availability of coping resources in buffering stress. Moreover, social support was found to be a functional buffer of stress. These results may imply that both cognitive-behavioral therapy (Lewinsohn & Clarke, 1984) and supportive group therapy (Fine, Forth, Gilbert, & Haley, 1991) may be appropriate interventions for Chinese adolescents with various levels of depression.

Changing the cognition of depressed adolescents from overgeneralizing all social others to be nonsupportive to expecting an optimistic future that someone (at least the counselor or psychotherapist) will show concern about them is crucial for alleviating depression in times of high stress. Support from counselors or psychotherapists is essential for the therapy to be successful, but involving support from family members or peers in the course of treatment will further facilitate improvement to be better sooner and to maintain longer. On the other hand, subjective appraisals of whether social others will provide help are based largely on adolescents' assessments of the quality of their social relations. Maintaining harmonious relations with social others is thus especially important to Chinese adolescents. Hence, prevention programs such as interpersonal communication and social skills training (Fine et al., 1991) are as important as, if not more important than, therapeutic treatments. The value of such prevention programs in enhancing the quality of social relations should not be ignored.

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