

Mattering as a Unique Resilience Factor in Chinese Children: A Comparative Analysis of Predictors of Depression

Gordon L. Flett¹, Chang Su¹, Liang Ma², and Lianrong Guo³

3 Educational Scientific Institute, Anshan Normal University

Abstract:

Objectives: The current research sought to establish the protective roles of individual difference factors associated with a positive self-orientation and also evaluate the role of personality vulnerability factors as predictors of depression in children from China. The main focus was on individual differences in feelings of mattering to other people.

Methods: A sample of 218 children in grade 5 classes in China completed a battery of measures that includes the General Mattering Scale as well as measures of self-esteem, unconditional self-acceptance, self-criticism, dependency, and depression.

Results: Analyses established that lower levels of depression were typically found among children who had elevated levels of mattering, self-esteem, and unconditional self-acceptance, and lower levels of self-criticism and dependency. The results of a regression analysis established that unique variance in depression was predicted by mattering, self-esteem, unconditional self-acceptance, and dependency.

Conclusion and Implications: These findings illustrate the protective role of mattering among children in China and suggest that mattering versus not mattering is a unique "double-edged" factor that can promote resilience for the child with a sense of mattering but can be a source of vulnerability for the child who has a diminished sense of mattering to others.

¹ Department of Psychology, LaMarsh Centre for Child and Youth Research, York University

² Educational Institute, Anshan Teachers Continuing Education School

Acknowledgments:

Gordon Flett was supported by the Canada Research Chair Program and funding provided by the Faculty of Health, York University. There are no conflicts of interest. Address correspondence to Gordon Flett, LaMarsh Centre for Child and Youth Research, York University, 4700 Keele Street, Toronto, Ontario, M3J 1P3, Canada; E-mail: gflett@ yorku.ca.

Conflict of Interest:

The authors declare no conflicts of interest.

Keywords:

resilience, mattering, self-esteem, self-criticism, dependency depression

Introduction

The role of mattering as a key orientation and element of the self and personal identity that underscores a resilient approach toward life and interpersonal relationships is a neglected topic in the psychology field. Rosenberg and McCullough (1981) defined mattering as "the feeling that others depend on us, are interested in us, are concerned with our fate, or experience us as an ego-extension" (p. 165). Mattering can be viewed as a key protective resource that should operate in a manner that is similar to other protective factors that underscore a resilience orientation (Masten, Best & Garmezy, 1990; Masten & Garmezy, 1985). Mattering is seen as similar to yet distinguishable from social support in that it can play a unique role in buffering life stressors and setbacks. Mattering is particularly relevant when confronted with interpersonal stressors because it can contribute to a form of interpersonal resilience that helps a person bounce back from adverse treatment and public embarrassments (Flett, Flett & Wekerle, 2015).

It is our contention that while establishing a sense of mattering is highly protective, mattering is "double-edged" in the sense that feelings of not mattering are highly destructive. Deficits in mattering typically reflect a less than optimal upbringing. Not surprisingly, initial data on not mattering and maltreatment indicate that emerging adults with a reported history of emotional abuse and emotional neglect during childhood also tend to have lower levels of mattering (Flett, Goldstein, Pechenkov, Nepon & Wekerle, 2016). Related research indicates that reduced levels of mattering to parents are associated with higher levels of parental alienation (Wu & Kim, 2009) as well as less parental acceptance and parental monitoring (Cookston et al., 2012).

Unfortunately, the role of mattering in resilience has not been examined extensively from a theoretical perspective. However, as alluded to earlier, in a recent conceptual analysis of interpersonally-based forms of resilience, Flett et al. (2015) posited that high social self-

esteem in terms of mattering to others is a key element in building resilience and resistance to interpersonal stressors, especially when this sense of mattering has become a stable and enduring part of someone's personal identity. In contrast, a sense of not mattering and having been treated in ways that convey the message "you don't matter" is a significant source of vulnerability.

Similarly, mattering has not been studied extensively as a resilience factor despite countless case illustrations of the transformative effects that follow from developing a sense of mattering after being treated in a loving manner by someone who truly cares. Implicit in the description of children identified as "cherished children" is that they have been able to withstand challenges and setbacks and demonstrate long-term adjustment because they have been treated in a manner that fosters a sense of mattering to others (Lee et al., 2015).

Some evidence of the protective role of mattering was provided by an investigation that focused on mattering as a coping resource among adults and found that mattering seemed to act as a buffer of the link between psychosocial stress and depression (Turner, Taylor & Van Gundy, 2004). Moreover, various studies have found that among adolescents and adults, higher levels of mattering are associated with lower levels of depression and lower levels of suicide ideation (e.g., Elliott, Colangelo & Gelles, 2005; Elliott, Kao & Grant, 2004; Flett, Galfi-Pechenkov, Molnar, Hewitt & Goldstein, 2012; Marshall, 2001).

The current study was conducted to extend research on the protective role of mattering by examining mattering and depression in children from China. The current study is unique in several respects. First, as suggested above, most research on mattering has been conducted with adolescents, university students, or adults from the general community, and there have been few attempts to examine mattering in children. The current study is particularly unique in that it focuses on children in China; the vast majority of research investigations of mattering have been conducted with participants from North America. The need to assess potential resilience factors by conducting research with Chinese adolescents was discussed at length by Wang, Zhang, and Zimmerman (2015). They noted that generalizability should be assessed rather than assumed and they highlighted unique contextual factors and situations that can impact the resilience factors among Chinese adolescents.

Our particular focus on children from China is due to the fact that Chinese children and adolescents face a number of stressors that point to the need to identify protective factors that promote resilience. There is now extensive evidence of the academic pressures that must be faced by children and adolescents from China (Quach, Epstein, Riley, Falconier & Fang, 2015). The stress experience can be further exacerbated by the strong sense of duty and obligation and the collectivistic emphasis on interdependence that exists among families as well as the pressures on individual children that can stem from China's one child policy (Hesketh, Lu & Xing, 2005). Given this interdependence, it seems apparent that deficits in feelings of mattering to significant others should be felt intensely by young people in China who define themselves in relation to significant others.

The current study is a follow-up investigation to an earlier study that assessed mattering in 232 Chinese high school students from advanced and non-advanced high schools (Flett, Su, Ma & Gu, 2014). Children in China are assigned to different schools based on their previous performance once they reach high school. There are two types of schools -- advanced high schools or regular high schools. The decision is based primarily on the student's scores on tests for various school subjects (e.g., math, literature, English, physics, chemistry, biology, politics). Participants in our previous study completed measures of mattering, depression, shame, and social anxiety, as well as a measure of academic resilience (i.e., academic buoyancy). As expected, mattering was associated with lower levels of depression, shame, and social anxiety. It was also associated with higher levels of academic resilience. This general pattern was found for students from both advanced and non-advanced high schools.

In the current study, we examined the extent to which mattering is associated with lower levels of depression in Chinese children. In addition, we investigated the predictive utility of mattering by examining whether mattering could predict unique variance in levels of depression after taking into account other potentially relevant predictors. Most notably, we focused on whether mattering could be distinguished from self-esteem. Rosenberg and McCullough (1981) highlighted this key issue in their seminal chapter. They argued that mattering and self-esteem are unique factors and they described data from various samples of adolescents suggesting that a measure of mattering to parents predicted a number of important outcomes independent of levels of self-esteem. Subsequent research with adult participants has yielded additional evidence indicating that mattering and self-esteem are distinguishable (Dixon & Kurpius, 2008; Ueno, 2010).

We conducted a stringent test of the hypothesized unique predictive role of mattering by going beyond self-esteem and examining other potentially relevant predictors of depression in children from China. In addition to assessing self-esteem, we also included a brief measure of unconditional self-acceptance. Research derived from the rationalemotive perspective has shown that a measure of unconditional self-acceptance is associated negatively with psychological distress in university students (Chamberlain & Haaga, 2001; Flett, Besser, Davis & Hewitt, 2003; Scott, 2007), and it is reasonable to expect that developing self-acceptance will be associated with lower levels of depression among Chinese children. We also included brief measures of self-criticism and dependency in light of research with children and adolescents from North America and China which indicates that these depressive vulnerability factors are associated with higher levels of distress and a tendency to engage in maladaptive behaviours that generate interpersonal stress (Auerbach, Eberhart & Abela, 2010; Cohen et al., 2013; Starrs et al., in press).

Our main hypotheses were as follows. First, it was hypothesized that mattering, selfesteem, and unconditional self-acceptance would be associated negatively and significantly with depression. In addition, it was expected that depression would be linked with higher levels of self-criticism and dependency. Second, it was anticipated that mattering and either self-esteem or unconditional self-acceptance would be unique predictors of depression when considered simultaneously in a regression analysis. This prediction reflects the fact that this research was conceptualized and conducted with the expectation that the results would support our contention that the theme of mattering versus not mattering is a specific resilience factor for children who feel like they matter but it is a risk factor for children who feel like they don't matter.

Method

Participants

Our sample consisted of 218 participants (109 boys, 108 girls, 1 undeclared). Participants were in Grade 5 and were recruited from a school in Anshan. Anshan is located in the northeast of China in Liaoning province. Anshan has over 1.5 million residents. Our participants had a mean age of 12.19 years (SD = 0.57). We focused on students in Grade 5 rather than older students to respect the wishes of school officials and our interest in assessing mattering in younger participants. Our participants were from a convenience sample that was available largely due to the affiliations established previously by the authors.

All participants were volunteers and no one indicated that they did not wish to participate and no interested participant was excluded. Informed consent from each student and their parents was obtained in writing. Ethics approval was provided by York University.

The second author was engaged in the recruitment of participants. The second author stayed with the students while they were completing the measures in order to assist with any reading or interpretation difficulties. All data were collected from multiple classrooms at the same school. Data collection took place in April 2012. Once participants completed the survey, each participant was given a written debriefing form in Mandarin and a small monetary gift (approximately \$5 Canadian) for taking part in this study.

Procedure

The various measures used in the current study are described below. Participants were tested in groups in their individual classrooms. Note that all measures were translated into simplified Mandarin from the original English version by the second author, who is qualified as a professional translator, and then, in accordance with established procedures, we confirmed the accuracy of the translations by having the measures back translated by another bilingual Mandarin-English speaker. The following measures were administered after a demographics questionnaire asking for date of birth, sex, and grade level:

Measures

The General Mattering Scale (GMS; Rosenberg & McCullough , 1981). The GMS is a five-item measure of how much one perceives they matter to others. The five questions are: (1) How important are you to others? ; (2) How much do other people pay attention to you?; (3) How much would you be missed if you went away?; (4) How interested are others in what you have to say?; and (5) How much do other people depend upon you? This measure has shown good internal consistency with an alpha coefficient of .85 (Taylor & Turner, 2001). Factor analysis has confirmed this measure is unidimensional (Taylor & Turner, 2001). The response options varied from strongly disagree to strongly agree using a four-point rating scale.

Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965). The RSES is a 10-item scale that is well-known and widely used. It is a measure of global self-esteem and has five items

worded in the negative direction. Response options range from "1" (strongly disagree) to "4" (strongly agree). Cross-cultural research with adults indicates that the scale typically yields a pattern suggesting that positive self-evaluation is universal across cultures, though in collectivist cultures such as China, there is some evidence of a neutral response bias (Schmitt & Allik, 2005).

Children's Depressive Experiences Questionnaire (CDEQ; Abela & Taxel, 2001). The CDEQ is a 10-item scale with five items that assess self-criticism (e.g., I am only happy when I am succeeding at everything. If I am not good at everything I do, I get mad at myself) and five items that assess dependency (e.g., I am not happy unless most people I know like me. I worry a lot about hurting or upsetting people who are close to me). The measure is patterned after the Depressive Experiences Questionnaire (Blatt, D'Afflitti & Quinlan, 1979) designed for adults. The CDEQ requires children to rate each item according to three options (i.e., not true for me, sort of true for me, and really true for me). The CDEQ was developed based on extensive analyses of 10 self-criticism items and 10 dependency items by Abela and Taylor (2002). The subscales have modest reliability likely due to the relatively low number of items being assessed.

Unconditional Self-Acceptance Questionnaire (USAQ). We utilized an abbreviated sixitem measure of Chamberlain and Haaga's (2001) USAQ by selecting items based on their content validity and readability level. Evidence attests to the psychometric properties of the USAQ when administered to adolescents (Hill, Hall, Appleton & Kozub, 2008). We used an abbreviated version of this measure in the current study despite the lack of a measure specific to children because of the conceptual relevance of individual differences in unconditional self-acceptance.

The Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977). The CES-D scale is a 20-item measure of the level of depressive symptoms within the past week. The CES-D has shown adequate test-retest reliability and construct validity in both clinical and nonclinical samples (Radloff, 1977).

Results

Initially, descriptive statistics were computed to examine the psychometric properties of the mattering measure. The Cronbach alpha was .69. The item-total correlations ranged from .35 to .51 and there were no items that appeared to undermine internal consistency, so the alpha of .69 is a reflection of modest scale length. The overall mean was 13.97 (SD = 2.91). Comparisons showed that girls had higher levels of mattering than boys with respective means of 14.36 (SD = 2.31) and 13.62 (SD = 3.34) and this difference was marginally significant, t = 1.89, p < .07.

The correlations among the variables for the total sample are shown in Table 1. Mattering was correlated significantly with self-esteem (r = .37, p < .01) but it was not associated significantly with unconditional self-acceptance, self-criticism, or dependency. As expected, mattering was associated significantly with reduced levels of depression (r = -.30, p < .01). Depression was also associated negatively with self-esteem (r = -.37, p < .01) and

	Mattering	Self-Esteem	Self- Acceptance	Self- Criticism	Depend	Depression
Mattering	1.00					
Self-Esteem	.37**	1.00				
Self-Acceptance	.00	.13	1.00			
Self-Criticism	.06	.09	10	1.00		
Depend	11	.14*	14*	.31**	1.00	
Depression	30**	37**	25**	.19**	.31**	1.00

Table 1: Correlations Among the Measures

Note. n = 218. * p < .05, **p < .01, two-tailed. The abbreviations are as follows: Self-Acceptance (Unconditional Self-Acceptance) and Depend (Dependency).

unconditional self-acceptance (r = .25, p< .01). Also, as expected, depression was correlated significantly with self-criticism (r = .19, p< .01) and dependency (r = .31, p< .01).

Overall, comparable correlations were obtained for boys versus girls in terms of the magnitude of the correlations between depression and mattering, self-esteem, and unconditional self-acceptance. However, the association between self-criticism and depression was significant in boys (r = .31) but not girls (r = .08, ns). In contrast, the association between dependency and depression was much more robust in girls (r = .46, p< .01) than boys (r = .21, p<. 05).

A regression analysis was then conducted to evaluate the unique predictors of depression. Given the differences between boys and girls in the correlations, sex was included as one of the predictors along with mattering, self-esteem, unconditional self-acceptance, self-criticism, and dependency. Overall, the predictors accounted for 27.7% of the variance in depression scores, F = 13.45, p<.001. As can be seen in Table 2, there were four significant predictors (at the p<.01 level): mattering, self-esteem, unconditional self-acceptance, and dependency. The results were in the expected direction with higher levels of depression associated with higher levels of dependency and lower levels of mattering, self-esteem, and unconditional self-acceptance.

Discussion

The current study focused on mattering as a protective factor among Chinese children. As expected, this research confirmed that mattering was associated significantly with lower levels of depressive symptoms. This is in keeping with our earlier research highlighting the protective role of mattering among Chinese adolescents (Flett et al., 2014). The pattern of correlations also indicated that mattering was associated with self-esteem but it had little overlap with the measures of unconditional self-acceptance, self-criticism, and dependency.

The correlational results using data from the total sample further established that all of the other individual difference factors were significantly correlated with depression, with the

Variable	R ²	В	t
Predictor Block	.277***		
Sex		055	-0.92
Mattering		193	3.02**
Self-Esteem		232	3.59**
Unconditional Self-Acceptance		176	2.94**
Self-Criticism		.097	1.56
Dependency		.207	3.28**

Table 2: Multiple Regression Analysis for Variables Predicting Depression

Note. *p < .05, **p < .01, ***p < .001.

strongest associations with depression involving self-esteem and dependency. Links between depression and dependency in Chinese adolescents have been reported previously (Cohen et al., 2013; Starrs et al., in press). However, to our knowledge, the association between unconditional self-acceptance and depression has not been evaluated previously in research with Chinese children. This finding illustrates the generalizability of previous findings obtained from samples of university students from North America (e.g. Scott, 2007), but more importantly, our results suggest that a relative paucity of unconditional self-acceptance may play a greater role that the presence of self-criticism as a contributor to distress among Chinese children.

Given that multiple factors were associated with depression, it was important to evaluate which factors were unique predictors of levels of depression when these factors were considered simultaneously in a regression analysis. We found that unique variance in depression was predicted by mattering, self-esteem, unconditional self-acceptance, and dependency. The findings with mattering replicate and extend other research showing that mattering is predictive of depression beyond the variance attributable to self-esteem among older participants from North America (e.g., Ueno, 2011). These results are in keeping with our contention that mattering is a unique protective factor that should be especially relevant after experiencing adverse interpersonal events. The child who knows in general that he or she matters to key significant others should be more able to withstand various forms of mistreatment and other types of stressors and challenges when compared to the child who has not been instilled with a sense of mattering to others.

A recent-meta analysis that took a lifespan perspective when assessing self-esteem among people from Taiwan illustrated the benefits of self-esteem; the authors of this work emphasized the need to promote self-esteem as a way of preventing depression in children (Chen, Chiu & Huang, 2013). Our findings support this conclusion given that self-esteem was a unique predictor of depression. However, our findings also qualify this conclusion by pointing to the need to promote a sense of mattering as a supplement to this focus on promoting self-esteem. Mattering can be promoted in many contexts (e.g., mattering at home, at school, and in the community) so that the child develops a more generalized sense of her or his importance and significance to other people.

While our main focus is on the role of mattering as a factor that protects children from depression, our results have broad implications involving the nature and relevance of self-evaluation. For instance, there has been some debate about the universality of self-esteem, with research suggesting that self-esteem is still relevant in collectivistic cultures (Brown, Cai, Oakes & Deng, 2009). Our results suggest that individual differences in perceived mattering are just as relevant as self-esteem differences among children from China.

Research is needed in China and elsewhere to identify the factors, processes, and experiences that contribute to individual differences in mattering. In the current instance, children were raised according to a one-child policy that ensures some degree of prominence within the family unit and this should, at least on the surface, result in some sense of mattering to some degree. However, the development of a sense of mattering is based on the quality of experiences with other people who take a special interest in the child. It is likely that a sense of mattering emerges from exposure to the types of parental warmth that are known to facilitate positive adjustment among children in China (Chen, Liu & Li, 2000).

While our primary focus is on mattering, it is important to note that several factors were associated with depression and unconditional self-acceptance was a unique predictor. This finding signifies the importance of Chinese children being able to develop an unconditionally positive orientation toward themselves to buffer feelings of self-criticism and to be resilient despite the achievement pressures they likely experience. Here it is worth noting that unconditional self-acceptance was uniquely predictive when pitted against self-esteem, so it seems evident that positive adjustment is more likely if elements of self-esteem (i.e., sense of self-liking and sense of feeling capable and competent) are accompanied by a pervasive sense of self-acceptance. This unconditional self-acceptance is especially important after making mistakes or experiencing achievement setbacks that would normally elicit self-punitive responses.

Limitations of the Current Study and Directions for Future Research

While the current study yielded several unique findings, certain limitations should be noted. First, this research was cross-sectional in nature, so no causal assumptions are warranted. Longitudinal research is needed to further establish the extent to which mattering uniquely contributes to a resilient orientation and positive adjustment outcomes. Similarly, the generalizability of these results need to be determined empirically rather than assumed. This is especially necessary given that we utilized a convenience sample rather than a sample comprised of randomly selected participants.

Second, we utilized a general measure of mattering and multiple measures of mattering should be used in future research; indeed, it could be argued that the predictive utility of mattering was actually underestimated in the current study. Mattering can be measured in terms of mattering in specific contexts (e.g., mattering at school) and it can be measured in terms of mattering to family members as well as peers and friends. Mattering can also be assessed in terms of feeling significant in the community. The need to use multiple measures

of mattering is suggested by the fact that there was substantial variance in depression scores that was not predicted by the variables included in the current research.

In summary, the current study examined predictors of depression in a sample of Chinese children and we confirmed that mattering as well as self-esteem and unconditional self-acceptance are associated with lower depression. As well, we established that mattering, self-esteem, and unconditional self-acceptance are unique predictors of depression when considered along with trait personality factors associated typically with depressive vulnerability. The results are noteworthy for various reasons, including the fact that mattering was related to self-esteem but predicted unique variance in depression when considered along with self-esteem and unconditional self-acceptance. Overall, these results suggest that children in China would benefit from additional experiences that promote a sense of mattering, perhaps by being given the opportunity to perform key roles that foster a sense that other people are depending on them.

References

- Abela, J. R. Z., & Taxel, E. (2001, June). *Personality predispositions to depression in schoolchildren*. Paper presented at the annual meeting of the Canadian Psychological Association, Quebec City, Canada.
- Abela, J. R. Z., & Taylor, G. (2002). *Development and validation of the Children's Depressive Experiences Questionnaire*. Unpublished manuscript, McGill University, Montreal.
- Auerbach, R. P., Eberhart, N. K., & Abela, J. R. Z. (2010). Cognitive vulnerability to depression in Canadian and Chinese adolescents. *Journal of Abnormal Child Psychology*, 38, 57-68. DOI: 10.1007/s10802-009-9344-y
- Blatt, S. J., D'Afflitti, J. P., & Quinlan, D. M. (1979). *Depressive Experiences Questionnaire*. Unpublished manuscript, Yale University, New Haven, Connecticut.
- Brown, J. D., Cai, H., Oakes, M. A., & Deng, C. (2009). Cultural similarities in self-esteem functioning: East is East and West is West, but sometimes the twain do meet. *Journal of Cross-Cultural Psychology, 40*, 140-157. Doi: 10.1177/0022022108326280.
- Chamberlain, J. M., & Haaga, D. A. F. (2001). Unconditional self-acceptance and psychological health. *Journal of Rational-Emotive and Cognitive-Behavior Therapy*, *19*, 163-176. Doi: 10.1023/A:1011189416600
- Chen, S-J., Chiu, C-H., & Huang, C. (2013). Self-esteem and depression in a Taiwanese population: A metaanalysis. *Social Behavior and Personality*, *41*, 577-586. DOI: https://doi.org/10.2224.sbp.2013.41.4.577
- Chen, X., Liu, M., & Li, D. (2000). Parental warmth, control, and indulgence and their relations to adjustment in Chinese children: A longitudinal study. *Journal of Family Psychology*, 14, 401-419. http://dx.doi. org/10.1037/0893-3200.14.3.401
- Cohen, J. R., Young, J. F., Hankin, B. L., Yao, S., Zhu, X. Z., & Abela, J. R. Z. (2013). Personality predispositions in Chinese adolescents: The relation between self-criticism, dependency, and prospective internalizing symptoms. *Journal of Social and Clinical Psychology*, 32, 596-616. doi: 10.1521/jscp.2013.32.6.596
- Cookston, J. T., Olide, A. F., Adams, M. A., Fabricius, W. V., & Parke, R. D. (2012). Guided cognitive reframing of adolescent-father conflict: Who Mexican American and European America adolescents seek and why. *New Directions for Child and Adolescent Development*, 135, 83-103. DOI: 10.1002/cd.200005
- Dixon, S. K., & Kurpius, S. E. R (2008). Depression and college stress among university undergraduates: Do mattering and self-esteem make a difference? *Journal of College Student Development, 49*, 412-424. http://dx.doi.org/10.1353/csd.0.0024
- Elliott, G. C., Colangelo, M. F., & Gelles, R. J. (2005). Mattering and suicide ideation: Establishing and elaborating a relationship. *Social Psychology Quarterly*, *68*, 223-238. http://dx.doi.org/10.1177/019027250506800303
- Elliott, G. C., Kao, S., & Grant, A. (2004). Mattering: Empirical validation of a social-psychological concept. *Self and Identity*, *3*, 339-354. http://dx.doi.org/10.1080/13576500444000119
- Flett, G. L., Besser, A., Davis, R. A., & Hewitt, P. L. (2003). Dimensions of perfectionism, unconditional self-

acceptance, and depression. Journal of Rational-Emotive and Cognitive-Behavior Therapy, 21, 119-138. DOI: 10.1013/A:1025051431957

- Flett, G. L., Flett, A. L., & Wekerle, C. (2015) A conceptual analysis of interpersonal resilience as a key resilience domain: Understanding the ability to overcome child sexual abuse and other adverse interpersonal contexts. *International Journal of Child and Adolescent Resilience*, 3, 4-33.
- Flett, G. L., Galfi-Pechenkov, I., Molnar, D. S., Hewitt, P. L., & Goldstein, A. L. (2012). Perfectionism, mattering, and depression: A mediational analysis. *Personality and Individual Differences*, 52, 828-832. http://dx.doi. org/10.1016/j.paid.2011.12.041
- Flett, G. L., Goldstein, A. L., Pechenkov, I. G., Nepon, T., & Wekerle, C. (2016). Antecedents, correlates, and consequences of feeling like you don't matter: Associations with maltreatment, loneliness, social anxiety, and the five-factor model. *Personality and Individual Differences*, 92, 52-56. http://dx.doi.org/10.1016/j. paid.2015.12.014
- Flett, G. L., Sue, C., Ma, L., & Guo, L. (2014). Academic buoyancy and mattering as resilience factors in Chinese adolescents: An analysis of shame, social anxiety, and psychological distress. *International Journal of Child and Adolescent Resilience*, *2*, 37-45.
- Hesketh, T., Lu, L., & Xing, Z. W. (2005). The effects of China's one child family policy after 25 years. *The New England Journal of Medicine*, 353, 1171-1176. DOI: 10.1056/NEJMhpr051833
- Hill, A. P., Hall, H. K., Appleton, P. R., & Kozub, S. A. (2008). Perfectionism and burnout in junior elite soccer players: The mediating influence of unconditional self-acceptance. *Psychology of Sport and Exercise*, 9, 630-644. http://dx.doi.org/10.1016/j.psychsport.2007.09.004
- Lee, L. O., Aldwin, C. M., Kubzansky, L. D., Chen, E., Mroczek, D. K., Wang, J. M., & Spiro, A. (2015). Do cherished children age successfully? Longitudinal findings from the Veterans Affairs Normative Aging Study. *Psychology and Aging*, 30, 894-910. http://dx.doi.org/10.1037/pag0000050
- Marshall, S. K. (2001). Do I matter? Construct validation of adolescents' perceived mattering to parents and friends. *Journal of Adolescence, 24*, 473-490. http://dx.doi.org/10.1006/jado.2001.0384
- Masten, A., Best, K. M., & Garmezy, N. (1990). Resilience and development: Contributions from the study of children who overcome adversity. *Development and Psychopathology, 2*, 425-444. DOI: https://doi.org/10.1017/S0954579400005812
- Masten, A., & Garmezy, N. (1985). Risk, vulnerability, and protective factors in developmental psychopathology. In B. B. Lahey & A. E. Kazdin (Eds.), *Advances in clinical child psychology* (Vol. 8, pp. 1-52). New York: Plenum. DOI: 10.1007/978-1-4613-9820-2_1
- Quach, A. S., Epstein, N. B., Riley, P. J., Falconier, M. K., & Fang, X. (2015). Effects of parental warmth and academic pressure on anxiety and depressive symptoms in Chinese adolescents. *Journal of Child and Family Studies*, 24, 106-116. DOI: 10.1007/s10826-013-9818-y
- Radloff, L. S. (1977). The CES-D Scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement, 1,* 385–401. http://dx.doi.org/10.1177/014662167700100306
- Rosenberg, M. (1965). Society and the adolescent child. Princeton, NJ: Princeton University Press.
- Rosenberg, M., & McCullough, B. C. (1981). Mattering: inferred significance and mental health. *Research in Community and Mental Health*, *2*, 163-182.
- Schmitt, D. P., & Allik, J. (2005). Simultaneous administration of the Rosenberg Self-Esteem Scale in 53 nations: Exploring the universal and culture-specific features of global self-esteem. *Journal of Personality and Social Psychology, 89*, 623-642. http://dx.doi.org/10.1037/0022-3514.89.4.623
- Scott, J. (2007). The effects of perfectionism and unconditional self-acceptance on depression. *Journal of Rational-Emotive and Cognitive-Behavior Therapy*, 25, 35-64. DOI: 10.1007/s10942-006-0032-3
- Starrs, C. J., Abela, J. R. Z., Zuroff, D. C., Amsel, R., Shih, J. H., Yao, S., Zhu, X. Z., & Hong, W. (in press). Predictors of stress generation in adolescents in Mainland China. *Journal of Abnormal Child Psychology*. DOI: 10.1007/ s10802-016-0239-4

- Taylor, R., & Turner, J. (2001). A longitudinal study of the role and significance of mattering to others for depressive symptoms. *Journal of Health and Social Behavior, 42*, 310-325. http://www.jstor.org/stable/3090217
- Turner, R. J., Taylor, J., & Van Gundy, K. (2004). Personal resources and depression in the transition to adulthood: Ethnic comparisons. *Journal of Health and Social Behavior, 45*, 34-52.
- Ueno, K. (2010). Mental health differences between young adults with and without same-sex contact: A simultaneous examination of underlying mechanisms. *Journal of Health and Social Behavior, 51*, 391-407. http://www.jstor.org/stable/40927635
- Wang, J. L., Zhang, D. J., & Zimmerman, M. A. (2015). Resilience theory and its implications for Chinese adolescents. *Psychological Reports: Disability and Trauma, 117,* 354-375. doi: 10.2466/16.17.PR0.117c21z8
- Wu, N. H., & Kim, S. Y. (2009). Chinese American adolescents' perceptions of the language brokering experience as a sense of burden and sense of efficacy. *Journal of Youth and Adolescence*, *38*, 703-718. DOI: 10.1007/s10964-008-9379-3