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# PERCEIVED SOCIAL SUPPORT AS MODERATOR OF PERFECTIONISM, DEPRESSION, AND ANXIETY IN COLLEGE STUDENTS

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We examined the role of perceived social support in the relationship between perfectionism and depression/anxiety. Partial correlation and hierarchical regression were conducted using cross-sectional data from 426 college students. They completed questionnaires including positive and negative perfectionism scales, the Depression Anxiety Stress Scale-21, and the Multidimensional Scale of Perceived Social Support. Results showed that depression/anxiety were significantly correlated with perceived social support and perfectionism. Perceived social support significantly moderated the influence of perfectionism upon depression/anxiety. These findings indicate that perceived social support may have a protective effect in preventing perfectionists from experiencing depression and anxiety.

*Keywords:* perfectionism, perceived social support, depression, anxiety, college students.

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Numerous researchers have found that there is a significant relationship between perfectionism and depression/anxiety (Flett, Endler, Tassone, & Hewitt, 1994; Hewitt & Flett, 1991; Kawamura, Hunt, Frost, & DiBartolo, 2001). Many researchers have tried to investigate the possible variables that influence the relationship between perfectionism and depression/anxiety, such as self-esteem, coping styles, and self-efficacy (Zhang & Cai, 2012a, 2012b). Studies in which researchers have investigated the role of perceived social support in this relationship are sparse, and there are only a few in which the research is conducted from the perspective of mediation rather than moderation effect (Dunkley, Blankstein, Halsall, Williams, & Winkworth, 2000; Sherry, Law, Hewitt, Flett, & Besser, 2008). In the current study, our aim was to examine the role of perceived social support (PSS) as the possible moderator of the relationship between perfectionism and depression/anxiety.

Depression and anxiety are the most common psychopathology symptoms. *Depression* includes *symptoms such as depressed mood, feelings of guilt and worthlessness, helplessness and hopelessness, loss of appetite, sleep disturbance, and psychomotor retardation* (Radloff, 1977). *Anxiety* includes *characteristics such as excessive rumination, worrying, uneasiness, apprehension, and fear about future uncertainties either based on real or imagined events* (Salunke, 2013).

### Perfectionism

Perfectionism has been identified as a potentially maladaptive trait considered to be a predisposing factor of psychopathology (Dunkley et al., 2011; Enns, Cox, & Clara, 2005; Hewitt & Flett, 1993, 1996). But an increasing number of researchers have suggested that perfectionism must be considered as a multidimensional, rather than a unidimensional, construct (Rice & Preusser, 2002). There are three measures that are frequently used to assess multiple dimensions of perfectionism (Frost, Marten, Lahart, & Rosenblate, 1990; Hewitt & Flett, 1991; Slaney, Rice, & Ashby, 2002) and Slade and Owens (1998) have also explicated a dual-process model of perfectionism that is based on underlying functional differences (Zhang & Cai, 2012b). In this dual-process model, adaptive perfectionists tend to set themselves realistic rather than unreachable standards, emphasize achieving success rather than avoiding failure, and their behaviors are underlaid by positive reinforcement (Bergman, Nyland, & Burns, 2007). On the other hand, behaviors of maladaptive perfectionists are strengthened by negative reinforcement, as they seek to avoid or escape personal failure, tend to set unrealistically high standards, and are driven by a fear of failure (Bergman et al., 2007; Burns, Dittmann, Nguyen, & Mitchelson, 2000; Hamachek, 1978;

Terry-Short, Owens, Slade, & Dewey, 1995). Evidence has supported the conceptual, psychometric, and practical importance of this dual-process model of perfectionism (Frost, Heimberg, Holt, Mattia, & Neubauer, 1993; Suddarth & Slaney, 2001).

A positive relationship between perfectionism and depression has been found in many studies (Hewitt & Flett, 1991), and an elevated perfectionism score has been related to an increased level of depression in both clinical and nonclinical samples (Shafran & Mansell, 2001; Zhang & Cai, 2012). Similarly, many researchers have found an association between perfectionism and anxiety (Kawamura et al., 2001) and Flett et al. (1994) reported that perfectionism was related to trait anxiety in a nonclinical sample. Other researchers have found similar relationships among samples of psychiatric patients and children (Hewitt et al., 2002).

### Perceived Social Support

*Social support* is defined as *the existence or availability of people on whom we can rely, people who let us know that they care about, value, and love us* (Nicolas, 2009; Sarason, Levine, Basham, & Sarason, 1983). *Perceived support* is "*the belief that help is available if needed*" (Calvete & Connor-Smith, 2006; Nicolas, 2009). Perceived social support (PSS) has been widely acknowledged as playing a buffering role between stress and psychological well-being (Cohen & Wills, 1985; Holt & Espelage, 2005). Adolescents can derive the beneficial effects of reduction in anxiety level or solution to a problem from the support they receive from a number of sources such as family, friends, teachers, or neighbors (Holt & Espelage, 2005). McCarthy, Tarrier, and Gregg (2002) reported finding an association between negative interpersonal interactions or perceptions and the onset of psychological disorders. Hipkins, Whitworth, Tarrier, and Jayson (2004) found that poor perceived emotional support was significantly related to anxiety and depression.

There has been a growing interest among researchers in the interactive roles of social support and personality in life-stress adjustment (see e.g., Cohen, Hettler, & Park, 1997; Dunkley et al., 2000). However, PSS has always been examined in the role of mediator between negative perfectionism and depression/anxiety (Dunkley et al., 2000; Dunkley, Sanislow, Grilo, & McGlashan, 2006). To our knowledge, in only two studies have researchers examined the possibility that social support might reduce the impact of perfectionism on depression and anxiety, but, in these studies, they used the stress-buffering model for their examination, namely, a triple interaction of stress × social support (or coping) × personality (Dunkley et al., 2000, 2006).

In the present study, we focused on the possible protective role of PSS. In order to clarify the relationship among perfectionism, PSS, and depression/

anxiety, and based on the findings in previous studies, we hypothesized that perfectionists with high levels of PSS might experience less depression/anxiety than perfectionists with low levels of perceived support.

## Method

### Participants and Procedure

We recruited 426 students from a psychology course at two colleges in China (45.78% men, 54.22% women). The participants' ages ranged from 17 to 26 years ($M$ = 19.82; $SD$ = 1.40). The participants signed consent forms and were informed that an extra five points would be counted toward their final grades at the end of the semester. They then completed the questionnaire. The research was approved by the ethics committee of Central South University.

### Instruments

We used the Positive and Negative Perfectionism Scale (PANPS; Terry-Short et al., 1995) to assess the students' levels of positive perfectionism (PP) and negative perfectionism (NP). The PANPS was translated into Chinese by two people with doctoral degrees in psychology. We examined the two versions for differences and then two English major graduates back-translated the Chinese translation into English. We tested the reliability and validity of the Chinese version of the PANPS with the college students. The Chinese version of PANPS includes 25 items, of which 12 items are used to measure positive perfectionism, and 13 items are used to measure negative perfectionism. Participants respond to items on a 5-point Likert scale ranging from 1 = *strongly disagree* to 5 = *strongly agree*. Scores for both dimensions are separated. The higher scores indicate either greater PP or greater NP. In this study the revised scale was shown to have good reliability and validity (Cronbach's alpha = .81 and .80, respectively, for PP and NP.

The Depression Anxiety Stress Scale-21 (developed by Lovibond & Lovibond, 1996; revised by Antony, Bieling, Cox, Enns, & Swinson, 1998) is composed of three subscales: depression, anxiety, and stress. Twenty-one items are rated on a 4-point Likert-type scale ranging from 0 = *strongly disagree* to 3 = *strongly agree*. In this study, depression and anxiety were chosen as the dependent variables, and the Cronbach's alphas were .77 and .79, respectively, for these.

The Multidimensional Scale of Perceived Social Support (MSPSS; Zimet, Dahlem, Zimet, & Farley, 1988) is used to measure perceived support from three sources: family, friends, and significant others, and is composed of 12 items. Items are scored on 7-point ranging from 1 = *very strongly disagree* to 7 = *very strongly agree*. Possible total scores range from 12 to 84, and the higher the score, the higher the level of PSS. The MSPSS has shown high internal reliability and good validity. In this study, the Cronbach's alpha of the perceived social support was .87.

### Data Analysis

Data were analyzed using SPSS version 17.0. The correlations between age, family location (urban or rural), and family type (one- or two-parent) with perfectionism, perceived social support, depression, and anxiety did not reach a level of significance, but being an only child (as compared with being a child in a family with more than one child) was significantly related to anxiety ($r$ = -0.142, $p < .01$), There were significant gender differences in level of PSS, depression, and anxiety. Men reported significantly higher levels of depression and anxiety compared to women (depression $t = 2.96$, $p < .01$, $M_{men} = 0.52$ [$SD = 0.51$], $M_{women} = 0.40$ [$SD = 0.35$]; anxiety $t = 2.24$, $p < .05$, $M_{men} = 0.57$ [$SD = 0.51$], $M_{women} = 0.48$ [$SD = 0.34$]). Women reported significantly higher levels of PSS compared to men ($t$ = -4.91, $p < .001$, $M_{men} = 5.05$ [$SD = 1.01$], $M_{women} = 5.48$ [$SD = 0.81$]). Therefore, gender and whether or not someone was an only child were controlled items in all analyses. Partial correlations were calculated to examine the relationships between perfectionism, PSS, depression, and anxiety.

Wen, Hou, and Chang (2005) proposed the examination of the moderation effect. Thus, gender and only child or not (control variables) were entered in the first step, and then PP and NP (independent variables) were entered in step 2. The moderator of PSS was entered in step 3, and the interaction effects of PP × PSS and NP × PSS were then entered in step 4.

## Results

### Descriptive Statistics and Partial Correlations

Partial correlation analysis was performed with perfectionism, PSS, depression, and anxiety (see Table 1). Results indicated that NP was positively and significantly related to PP; depression and anxiety were negatively and significantly related to PSS; PP was positively and significantly related to PSS and anxiety and negatively and significantly related to depression; PSS was negatively and significantly related to depression and anxiety. Means and standard deviations are shown in Table 1.

Table 1. *Partial Correlations Among Perceived Social Support, Perfectionism, Depression, and Anxiety*

| | NP | PP | PSS | Depression | Anxiety | $M \pm SD$ |
|---|---|---|---|---|---|---|
| NP | 1.000 | | | | | 4.38 ± 0.66 |
| PP | .373*** | 1.000 | | | | 6.08 ± 0.70 |
| PSS | -.178*** | .269*** | 1.000 | | | 5.28 ± 0.93 |
| Depression | .333*** | -.150*** | -.320*** | 1.000 | | 0.45 ± 0.43 |
| Anxiety | .387*** | .102** | -.247*** | .655*** | 1.000 | 0.52 ± 0.43 |

*Note*. ** $p < .01$, *** $p < .001$. NP = negative perfectionism; PP = positive perfectionism; PSS = perceived social support.

### Moderation Analyses

Given that, according to our results, depression and anxiety were related to perfectionism as well as PSS, we used moderated analyses (Baron & Kenny, 1986; Wen et al., 2005) to investigate whether or not PSS moderated the relationship between perfectionism and depression/anxiety. We controlled for gender and only child status in all analyses.

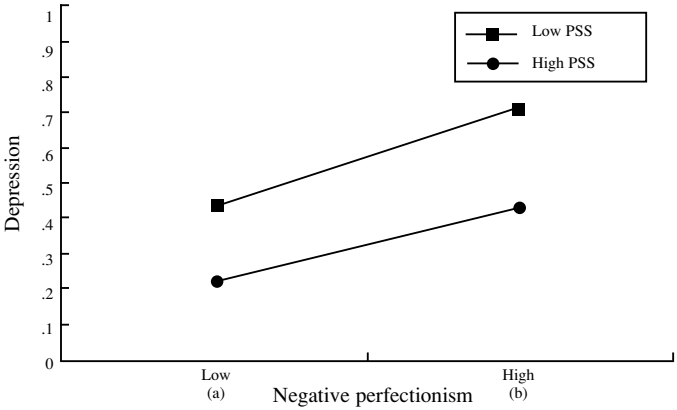
### Depression and Anxiety

As is shown in Table 2, there was a significant interaction between students' perfectionism and PSS in predicting depression. We have presented depression as a function of perfectionism and PSS. Figure 1(a) shows that the relationship between PP and depression was significantly negative when levels of PSS were low (one standard deviation below mean: B = -.237, $t$ = -2.463, $p < .05$), but not significantly related when levels of PSS were high (one standard deviation above mean: B = .057, $t = 0.286$, $p > .05$). Figure. 1(b) shows that the relationship between NP and depression was significant when participants reported either high (B = .310, $t$ = 3.277, $p < .01$) or low (B = .341, $t$ = 3.686, $p < .01$) PSS (Dearing & Hamilton, 2006).

Table 2. *Perceived Social Support as a Moderator of the Relationship Between Perfectionism and Depression*

| | Variables | | | Depression | | | |
|---|---|---|---|---|---|---|---|
| | | B | Beta | $t$ | $R^2$ | $\Delta R^2$ | $F$ |
| Step 1 | | | | | .027 | .022 | 5.600*** |
| | Gender | -.126 | -.146 | -2.992** | | | |
| | Only child or not | -.055 | -.064 | -1.318 | | | |
| Step 2 | | | | | .209 | .201 | 26.923*** |
| | PP | -.132 | -.308 | -6.449*** | | | |
| | NP | .188 | .436 | 9.134*** | | | |
| Step 3 | | | | | .238 | .228 | 25.337*** |
| | PSS | -.082 | -.189 | -3.902*** | | | |
| Step 4 | | | | | .259 | .246 | 2.188*** |
| | PP × PSS | .049 | .139 | 2.936** | | | |
| | NP × PSS | -.050 | -.136 | -2.792** | | | |

*Note*. * $p < .05$; ** $p < .01$; *** $p < .001$; NP = negative perfectionism; PP = positive perfectionism;




PSS = perceived social support.

Figure 1. *The moderating effect of perceived social support on the relationship between perfectionism and depression.*

There was a significant interaction between students' perfectionism and PSS in predicting anxiety (Table 3). We presented anxiety as a function of perfectionism and PSS. Figure 2(a) shows that the relationship between PP and anxiety was significantly positive when levels of PSS were high (1 *SD* above mean: B = .264, $t = 2.88$, $p < .05$), but not significant when levels of PSS were low (1 *SD* below mean: B = .109, $t = .126$, $p > .05$). Figure 2(b) shows that the relationship between NP and anxiety was significant when participants reported high (B = .325, $t = 3.406$, $p < .01$) or low (B = .381, $t = 4.106$, $p < .001$) PSS.

Table 3. *Perceived Social Support as a Moderator of the Relationship Between Perfectionism and Anxiety*

| | Variables | Anxiety | | | | | |
|---|---|---|---|---|---|---|---|
| | | B | Beta | *t* | $R^2$ | $\Delta R^2$ | *F* |
| Step 1 | | | | | .030 | .025 | 6.265** |
| | Gender | -.093 | -.108 | -2.216* | | | |
| | Only child or not | -.110 | -.128 | -2.623** | | | |
| Step 2 | | | | | .174 | .166 | 21.426*** |
| | PP | -.051 | -.119 | -2.439* | | | |
| | NP | .176 | .410 | 8.393*** | | | |
| Step 3 | | | | | .193 | .183 | 19.461*** |
| | PSS | -.067 | -.156 | -3.124** | | | |
| Step 4 | | | | | .220 | .206 | 16.250*** |
| | PP × PSS | .046 | .130 | 2.681** | | | |
| | NP × PSS | -.062 | -.171 | -3.423*** | | | |

*Note*. * $p < .05$; ** $p < .01$; *** $p < .001$; NP = negative perfectionism; PP = positive perfectionism; PSS = perceived social support.

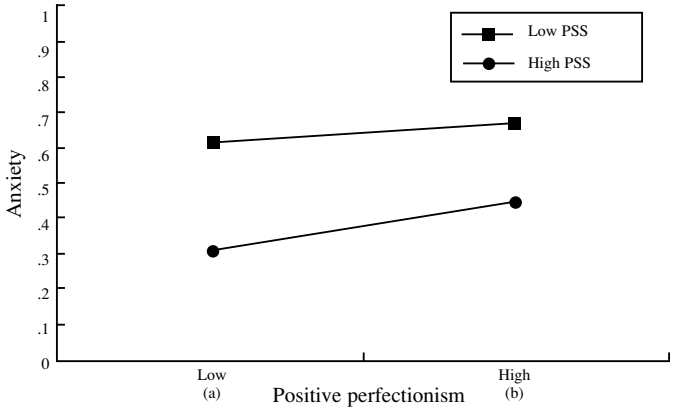



Figure 2. *The moderating effect of perceived social support on the relationship between perfectionism and anxiety.*

## Discussion

Generally, in this study, perfectionism had a significant influence on the level of the college students' depression and anxiety, in that those who scored high on perfectionism also experienced greater depression and anxiety than others did. These findings suggest that perfectionism can influence psychopathology (Hewitt et al., 2002; Hewitt, Flett, & Ediger, 1996). But greater perfectionism might not result in the same rate and increase of depression and anxiety for all adolescents.

Our findings confirmed those in previous studies that there is a significantly positive relationship between perfectionism with depression and anxiety, and a negative relationship between PSS with NP, depression, and anxiety (McCarthy et al., 2002; Wearden, Tarrier, Barrowclough, & Zastowny, 2000). Notably, we found that PP was negatively related to depression. Rice and Dellwo (2002) also reported higher levels of depression among healthy perfectionists compared with nonperfectionists.

Our goal in this study was to understand the mechanism of the moderation effect of PSS on the relationship between perfectionism and depression/anxiety. Our participants responded differently to perfectionism according to their different levels of PSS. Individuals who reported high levels of PSS were less likely to experience depression and anxiety. These results were consistent with those reported by Cohen et al. (1997). We found that PSS may have a potentially protective effect in preventing perfectionists from experiencing depression and anxiety in that perfectionists who perceived that they have a low level of social support were more likely to experience anxiety and depression and conversely

perfectionists who perceived that they have a high level of social support were less likely to do so (Farrow, 2012). But we also found that in the PP condition, as the degree of PP increased, the level of anxiety significantly increased in those individuals with a high level of PSS whereas in individuals low in PSS the level of anxiety did not increase. According to the dual-process model, setting high standards is an integral part of perfectionism, and thereby often beneficial for the performance of the individual who is a perfectionist, but when only a perfect performance is considered by the perfectionist to be good enough, these originally positive expectations may, instead, lead to the development of depression, anxiety, and a fear of failure (Koivula, Hassmén, & Fallby, 2002; Williams & Leffingwell, 1996). With a high level of PSS, positive perfectionism may turn to pressure as the positive perfectionist internalizes the social support as an impetus to strive to do even better.

Our study has several limitations. First, we used a sample of university students. Such a sample may not be representative of either the general adult population, or a population of clinical patients. Second, cross-sectional research is still needed to undertake a longitudinal investigation of the causality of PSS. Our data suggest that students who are greater perfectionists are prone to depression and anxiety, and higher levels of PSS may be beneficial for buffering psychopathology. Future researchers should focus on longitudinal designs to describe the relationship among perfectionism, perceived social support, and depression in both clinical and nonclinical samples.

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