ISSN 1303-0485 • **eISSN** 2148-7561
DOI 10.12738/estp.2015.4.2434

Educational Sciences: Theory & Practice • 2015 August • 15(4) • 879-890

Received | January 28, 2015
Accepted | May 5, 2015
OnlineFirst | August 7, 2015

Investigating the Relationship between Self-Handicapping Tendencies, Self-Esteem and Cognitive Distortions

Yasemin Yavuzer[a]
Nigde University

Abstract

The purpose of this study is to examine the relationship between cognitive distortions, self-handicapping tendencies, and self-esteem in a sample of students studying in a school of education. The sample of the study was comprised of 507 volunteer students chosen through random sampling from a total of 4,720 students who were studying teaching at Nigde University and Aksaray University, located in central Anatolia in Turkey. The self-handicapping scale, cognitive distortions scale, and Rosenberg self-esteem scale were used in the present study. In a preliminary analysis, it was found that women had higher self-handicapping scores than men. In the current study, it was found that cognitive distortions (self-criticism, self-blame, hopelessness, and preoccupation with danger) and self-esteem significantly predicted self-handicapping tendencies. The mediator and moderator role of self-esteem on the relation between cognitive distortions and self-handicapping were the major questions of this study. It was found that self-esteem did not have a mediator role on the relationship between cognitive distortions or self-handicapping in the current study group. However, the study revealed important findings regarding the moderator role of self-esteem on the relationship between cognitive distortions and self-handicapping. That is, high levels of cognitive distortions (self-criticism, self-blame, hopelessness, and preoccupation with danger) were related to a high self-handicapping tendency for teacher candidates with low self-esteem.

Keywords: Cognitive distortions • Self-handicapping • Self-esteem • College students

a Correspondence
Assoc. Prof. Yasemin Yavuzer (PhD), Department of Psychological Counseling and Guidance, Educational Faculty, Nigde University, Nigde Turkey
Research areas: Aggression in adolescent; School violence; Conflict resolution; Anxiety; Stress; Creative drama and psycho-educational groups
Email: yyavuzer@nigde.edu.tr & yyavuzer@hotmail.com

Jones and Berglas (1978) have described self-handicapping as a set of behavioral strategies enacted before a performance that permits the individual to externalize failure and internalize success (as cited in Rhodewalt & Davison, 1986). In other words, it refers the adoption and use of obstacles that will result in failure in situations when the likelihood of success is low (Martin & Brawley, 1999). Therefore, self-handicapping is concerned with the creation of obstacles that will make success difficult in order to make excuses for a potential failure. In the event of failure, the individual attributes it to these obstacles and externalizes the source of failure (Rhodewalt, 1994). If an individual performs well, they will have proven that success has been made in spite of the negative conditions or obstacles they have created for themselves (Ferrari & Tice, 2000). Therefore, one wins in both cases because they have a ready and plausible excuse for failure, or in the event of success, they will have the right to boast that success was made in spite of negative conditions, thus increasing its value (Alter & Forgas, 2007). Self-handicapping is paradoxical in nature. While it protects or reinforces self-esteem, it also damages performance. When chronic, however, it leads to an increase in inadaptability, negative affectation, somatic symptoms, and substance abuse; it also lowers internal motivation, physical and psychological well-being, and satisfaction obtained from ability (Abacı & Akın, 2011, p. 69). Zuckerman and Tsai (2005) proposed that the consequences of self-handicapping behaviors can be negative for at least three reasons: *(i)* some self-handicapping behaviors (e.g., alcohol consumption) are debilitating in and of themselves, *(ii)* self-handicaps eventually impede performance and these performance decrements may have wide ranging effects on adjustment and well-being, and *(iii)* self-handicapping that is addressed internally is likely to involve self-deception. Self-handicapping has also been linked with negative outcomes such as higher levels of depression and anxiety, and reduced self-esteem (Kearns, Forbes, & Gardiner, 2007).

The literature deals with two forms of self-handicapping: claimed self-handicapping and behavioral self-handicapping. Claimed self-handicapping strategies include one's claim that they are sick, socially anxious, in a bad mood, or a victim of traumatic life experiences. On the other hand, behavioral strategies include actions that will directly impede performance, such as modifying the quality or quantity of a practice, creating physical problems like diseases and injuries or exaggerating already existing ones, and focusing on real or perceived defects (such as alcohol and drug use, or lack of a work/study habit) (Prapavessis & Grove, 1998).

The present study deals with cognitive distortions which are thought to be another factor in self-handicapping. According to A. T. Beck (1976), cognitive distortions are an individual's wrong or rationalized attitudes towards, opinions of, and beliefs in, their own or others' social behaviors. According to J. S. Beck (2006), there are five fundamental cognitive distortions that cause emotional stress. These are personalization, polarized thinking (all-or-nothing thinking), selective abstraction, arbitrary inference, and overgeneralization. According to A. T. Beck (1976), many disorders stem from an individual's negative thoughts about themselves, their surroundings, and their future. The cognitive structure in Beck's model was formed mostly for disorders like depression and anxiety. According to A. T. Beck's (1976) formulation, early experiences lead to the development of non-functional schemas about one's self and the world. These schemas pave the way for depression. In addition, non-functional beliefs in cognitive structure form one's thoughts, and they are intensely used by individuals who have problems with themselves. Developed by Beck and friends, the concept of cognitive triad is explained as "...a state of having negative thoughts about one's self, the world, and the future." An individual with these thoughts makes humiliating definitions about themselves and their self-esteem; they perceive themselves as incomplete, worthless, or problematic (Hiçdurmaz & Öz, 2011). In related literature, it has been mentioned that the more cognitive distortions are used, the lower self-esteem becomes (Daly & Burton, 1983; Hamarta & Demirbaş, 2009; Koydemir & Demir, 2008; Mclennan, 1987; Nasir et al., 2011; Nielsen et al., 1996). According to Briere (2000), there are five types of cognitive distortions: self-criticism (low self-esteem), self-blame (a tendency for blaming oneself about negative events that are beyond one's control), helplessness (a general sense of helplessness concerning unwanted events in one's life), hopelessness (a belief that one's future is inescapably hopeless), and preoccupation with danger (an overestimation of the amount of danger and adversity in the world). Cognitive distortions are perceived as purely dysfunctional. Recently, however, Bowins (2004, p. 1) argued that cognitive distortions may not always be dysfunctional, but could "place a positive, ego-enhancing spin on experience." A self-handicapper believes that ability can be displayed but cannot be improved and that

one's level of ability is insufficient (Abacı & Akın, 2011). Therefore, an individual is anxious that they may become unsuccessful with a task. When there is less chance that a handicapper can be successful, they embrace the conditions that lead to their failure and they protect or reinforce themselves. In this sense, one's distorted image of self is thought to be the driving force behind the expectations of a failure resulting in self-handicapping.

It is generally accepted that self-handicapping is motivated by a combination of self-presentational concerns and anticipated threats to self-esteem, in particular uncertainty about one's ability (Avtgis, Rancer, & Amato, 1998; Bartels & Herman, 2011; Rhodewalt & Hill, 1995; Tice & Baumeister, 1990). In other words, self-handicapping is a strategy based on self-esteem, a self-presentation strategy to protect one's high status in the eyes of others. The literature includes a number of studies on the relationship between self-handicapping and self-esteem. Several studies have reported that individuals with low self-esteem resort to self-handicapping strategies more often than others (e.g., Prapavessis & Grove, 1998; Pulford, Johnson, & Awaida, 2005; Tice & Baumeister, 1990). From that standpoint, individuals with a low self-esteem have higher expectations of failure than those with high self-esteem. Accordingly, the former will use self-handicapping strategies more often with the aim of justifying their potential failures (Prapavessis & Grove, 1998; Tice & Baumeister, 1990). In addition, they need to receive more positive criticism or become more motivated so as to avoid negative criticism. In this way, they employ self-handicapping strategies more often in order to protect or boost their self-esteem levels (Tice & Baumeister, 1990).

On the other hand, some researchers have argued that individuals with high self-esteem use self-handicapping strategies more often than others (e.g., Lupien, Seery, & Almonte, 2010; Rhodewalt & Hill, 1995; Rhodewalt, Saltzman, & Wittmer, 1984; Thompson & Dinnel, 2007). They hold that individuals with low self-esteem resort to self-handicapping strategies less often than others because they have a less positive concept of self and are less often in need of protecting their self-image. Furthermore, an experience of failure might result in more devastating effects on individuals with high self-esteem, for they are not accustomed to such experiences and do not expect failure in a task that they consider important. This may mean that individuals with high self-esteem are more concerned about managing the implications of possible failures (Tice & Baumeister, 1990). In their study, Rhodewalt et al. (1991) found that individuals regardless of what level of self-esteem they have blamed other factors for failure, whereas only individuals with a high level of self-esteem attributed success to themselves (as cited in Abacı & Akın, 2011). In their study on sixth graders, Kimble, Kimble, and Croy (1998) found that individuals resorted to self-handicapping strategies regardless of how high their self-esteem was. To sum up, self-handicapping protects and enhances self-esteem. It has been reported in the literature that self-handicapping is driven more often by self-enhancement in case of high self-esteem, and self-protection in the case of low self-esteem (Tice, 1991).

In the related literature numerous studies have linked self-handicapping to self-esteem (e. g., Rhodewalt et al., 1984; Thompson & Dinnel, 2007; Tice & Baumeister, 1990), a fear of failure (Alter & Forgas, 2007; Bartels & Herman, 2011), verbal aggression (Avtgis et al., 1998), perfectionism (Kearns et al., 2007), and academic performance (Zuckerman, Kieffer, & Knee, 1998). However, no research has examined the relationship between cognitive distortions and self-handicapping. Self-handicapping is a problem because it damages performance. In the long run, it also leads to such problems as inadaptability, negative affectations, somatic symptoms, and substance abuse. There is little doubt that studying the variables related to self-handicapping will support the process of defining, preventing, and controlling the problem. The findings of the present study might guide counseling studies aimed to reduce the self-handicapping tendency of students in higher education. In addition, it is thought that the present study will contribute to the comprehensibility of the tendency to self-handicap as a notion. Therefore, the purpose of this study is to examine the relationship between cognitive distortions, self-handicapping tendencies, and self-esteem in a sample of prospective teachers. The mediator or moderator role of self-esteem on the relation between cognitive distortions and self-handicapping especially is the major question of this study.

Method

Research Design and Participants

This is a correlational and quantitative research aiming to examine the relations of cognitive distortions with self-esteem and self-handicapping. The study sample is comprised of 507 volunteer students chosen through random sampling (lottery method) from a total of 4,720 students who are studying teaching at Nigde University and Aksaray

University, both of which are located in the central region of Anatolia in Turkey. Whereas 321 of the students (63.6%) are female, the remaining 186 (36.4%) are male. The distribution of the students by grade is as follows: 143 freshmen (28.2%), 101 sophomores (19.9%), 221 juniors (43.6%) and 42 seniors (8.3%). Their ages vary between 18 and 29 (M = 20.276, SD = 1.477).

Instruments

Self-Handicapping Scale (SHS): Developed by Jones and Rhodewalt (1982) and adapted to Turkish by Akın, Abacı, and Akın (2010), the self-handicapping scale is based on a 6-point Likert-type scale consisting of 25 descriptive items that assess different types of self-handicapping strategies (as cited in Abacı & Akın, 2011). The lowest possible score is 25 and the highest is 150, with higher scores indicating high tendencies of self-handicapping. The construct validity of the Turkish version was examined by Akın, Abacı, and Akın (2010) through exploratory and confirmatory factor analyses (as cited in Abacı & Akın, 2011). The factor loadings of the items ranged from .34 to .69. The fit index values were as follows: *RMSEA* = .037, *NFI* = .98, *CFI* = .99, *IFI* = .97 and *AGFI* = .94. According to these values it can be said that the structural model of the SHS which consists of one factor was well fit to Turkish culture. The internal consistency and test-retest reliability coefficients were found to be .90 and .94, respectively (Akın, 2012). In this study, the internal consistency coefficient was found to be .70.

Cognitive Distortions Scale (CDS): Designed by Briere (2000) and adapted to Turkish by Ağır (2007) for university students, the cognitive distortions scale consists of 40 items that express dysfunctional cognitive thoughts. The scale deals with 5 types of cognitive distortions. Self-criticism (SC), self-blame (SB), helplessness (HLP), hopelessness (HOP), and preoccupation with danger (PWD) explain 53.81% of the total variance. Each subscale contains eight items. In order to ensure language equivalence, Ağır (2007) distributed the scale to a total of 35 junior students studying English Language Teaching in two-week intervals. The coefficient of correlation between the two applications was .73.

In the present study, confirmatory factor analysis was done because the highest correlation coefficient was found between the HOP and HLP subscales during regression analysis. The factor loadings of the items varied between .41 and .77. All items were placed in five sub-dimensions (SC, SB, HOP, PWD and HLP). The five sub-dimensions explain 54.80% of the total variance. The factor loadings of some items for the HOP sub-dimension were high. Their factor loadings, however, were significant for the HLP sub-dimension. Thus data analysis was done through four sub-dimensions (HLP was excluded from the analysis).

Rosenberg Self-Esteem Scale (RSES): Developed by Rosenberg and adapted to Turkish by Çuhadaroğlu (1986), the Rosenberg self-esteem scale has 12 subscales and 63 items. In this study, the self-esteem subscale of 10 items was used. The original instrument utilized a four-point Gutman scale with response options ranging from strongly agree to strongly disagree. Rosenberg (1979, as cited in Kaya, 2007) tested the scale's reliability and validity on two small college samples and found the two-week test-retest reliability coefficients to be .85 and .88. The internal consistency coefficient and test-retest reliability coefficient that was done four weeks later were found to be .76 and .71, respectively (Çuhadaroğlu, 1986). In the present study, the internal consistency coefficient was found to .72.

Data Analysis: The data was analyzed using the *t*-test, ANCOVA, Pearson correlation coefficient, and multiple linear and hierarchical regression analyses. Prior to analysis, the hypotheses of the regression analysis were tested. It was discovered that the normality and linearity hypotheses of the regression analysis were proven. Before running analyses, conformity of the data to normal distribution was tested by computing skewness and kurtosis values. Skewness values for all independent variables were between -.24 and .38, and the kurtosis values were between -.30 and 1.22. Skewness and kurtosis values for each gender were also reported because of the remarkable difference between male and female participants. Skewness values for the females were between -.24 and .37, and for the males, between -.24 and .26. Kurtosis values for the females were between -.30 and 1.22, and for the males, between -.16 and 1.20. Skewness and kurtosis values should ideally be between +1 and -1, but values between +2 and -2 are considered acceptable (Karaatlı, 2006, p. 58). Furthermore, the data was analyzed for outliers. Accordingly, 20 observations were defined as outliers by using Mahalanobis distance, and were thus excluded from the data set. Final data analysis was conducted on 507 participants.

The presence of autocorrelation was tested through the Durbin-Watson statistic, which turned out to be 1.74. The tolerance values and VIF values varied from .42 to 1.00 and 1.00 to 2.45, respectively. In addition, as reported in the methodological

literature, correlation coefficients between predictor variables that are .90 or above (Tabachnick & Fidell, 2001, p. 84) or .80 or above (Stevens, 2002, p. 93) indicate a multicollinearity problem. In this study, correlation coefficients between predictor variables varied between -.04 and .77 (Table 2). The highest correlation coefficient was found between the HOP and HLP subscales (r = .79). This finding was evaluated along with the results of CDS factor analysis, and data analysis was done through four sub-dimensions. As a result, HLP was excluded from analysis because of multicollinearity.

Previous research reported differences between females and males in terms of self-handicapping (e.g., Kimble et al., 1998; Rhodewalt & Davison, 1986). Therefore, preliminary analysis was conducted for gender on the SHS scores. Also a gender difference was tested for in the subscales of the CDS (SC, SB, HOP, and PWD) and RSES scores. Moreover, as the SHS scores differed between genders, gender was entered as a control variable in the first block of regression analysis. For the gender variable, females were coded as 0, re-identified as the dummy variable, and included in the regression analysis. In the present study, the mediator role and moderator effect of self-esteem in the relationship between cognitive distortions (SC, SB, HOP, PWD subscales) and self-handicapping were investigated within the context of Baron and Kenny (1986). For this reason, hierarchical regression analysis was done with the SPSS-13 packet program. In order to prevent the problem of multicollinearity, centering was applied to predictor and moderator variables (Frazier, Tix, & Barron, 2004). Later, the product terms that will represent the interactions between predictor and moderator variables were formed.

Procedure

Three days before the mid-terms for the Spring semester, the scales were implemented on volunteer students who studied different teaching disciplines at Nigde University and Aksaray University during the 2012-2013 school year. The participants were provided with the package of scales during a session that lasted nearly 40 minutes. Each session included 35 individuals. The scales were implemented to all the participants over 14 sessions. Prior to implementation, the participants were provided with explanations as to the study and how to fill in the data-collection instruments.

Results

Gender & Self-handicapping

The effect of gender on the scores for self-handicapping was meaningful ($t = 2.17$, $p < .5$). Based on this finding, it can be said that females had higher self-handicapping scores ($M = 88.97$, $SD = 12.72$) than males ($M = 86.41$, $SD = 12.78$). Moreover, when self-esteem was controlled, it was found that there was still a gender difference for the self-handicapping scores [$F_{(1\text{-}504)} = 5.00$, $p < .05$]. The scores obtained from the subscales of the CDS (SC, SB, HOP, and PWD) and RSES did not differ regarding gender (see Table 1).

Table 1
Means and Standard Deviations of Studied Variables

	Male (n = 186)		Female (n = 321)		
	M	*SD*	*M*	*SD*	*t*
SHS	86.41	12.78	88.97	12.72	2.17*
CDS					
Self-criticism (SC)	19.36	6.03	19.68	6.18	.56
Self-blame (SB)	21.96	5.56	21.98	5.66	.04
Hopelessness (HOP)	18.91	7.26	18.89	7.93	.02
Preoccupation with danger (PWD)	20.43	5.90	20.65	6.67	.37
RSES	27.98	5.15	27.79	5.00	.41

Note. SHS = Self-Handicapping Scale; CDS = Cognitive Distortions Scale; RSES = Rosenberg Self-Esteem Scale.
*$p < .05$.

Table 2
Correlations Among Variables

	M	*SD*	*SHS*	*SC*	*SB*	*HLP*	*HOP*	*PWD*
SHS	88.03	12.79	1					
CDS								
Self-criticism (SC)	19.56	6.12	.38**	1				
Self-blame (SB)	21.97	5.62	.27**	.74**	1			
Helplessness (HLP)	21.10	6.40	.36**	.68**	.72**	1		
Hopelessness (HOP)	18.90	7.68	.39**	.76**	.71**	.79**	1	
Preoccupation with danger (PWD)	20.57	6.39	.35**	.77**	.73**	.74**	.76**	1
RSES	27.86	5.05	.11**	-.11*	-.07	-.07	-.04	-.12*

Note. SHS = Self-Handicapping Scale; CDS = Cognitive Distortions Scale; RSES = Rosenberg Self-Esteem Scale.
*$p < .05$; **$p < .01$.

Correlation Between Variables

The Pearson product-moment correlation technique was used to explain the relationship among the variables. Table 2 presents the correlations among variables. The students' scores in the SHS positively correlated to their scores in self-criticism (r = .38, p < .01), self-blame (r = .27, p < .01), hopelessness (r = .39, p < .01), preoccupation with danger (r = .35, p < .01) and RSES (r = .11, p < .01). The students' scores in the RSES negatively correlated to their scores in self-criticism (r= -.11, p < .05), and preoccupation with danger (r = -.12, p < .05) (see Table 2).

Mediation Role of Self-esteem

Table 3
Regression Analysis of the Mediating Role of RSES in the Relationship between CDS (SC, SB, HOP, PWD Subscales) and SHS

	Variables	R^2	F_{ch}	β	*T*
Model 1					
Step 1 (SHS/Dependent Variable)	Gender	.15	44.95**	-.09	-2.12*
	SC			.38	9.19**
Step 2 (RSES/Dependent Variable)	Gender	.01	3.20*	.02	.35
	SC			-.11	-2.50*
Step 3 (SHS/Dependent Variable)	Gender	.18	35.88**	-.09	-2.21*
	SC			.39	9.69**
	RSES			.16	3.90**
Model 2					
Step 1 (SHS/Dependent Variable)	Gender	.08	22.62**	-.10	-2.24*
	SB			.27	6.33**
Step 2 (RSES/Dependent Variable)	Gender	.01	1.35	.02	.41
	SB			-.07	-1.59
Step 3 (SHS/Dependent Variable)	Gender	.10	18.74**	-.10	-2.33*
	SB			.28	6.60**
	RSES			.14	3.19**
Model 3					
Step 1 (SHS/Dependent Variable)	Gender	.16	49.36**	-.10	-2.38*
	HOP			.39	9.65**
Step 2 (RSES/Dependent Variable)	Gender	.00	.46	.02	.41
	HOP			-.04	-.86
Step 3 (SHS/Dependent Variable)	Gender	.18	37.01**	-.10	-2.46*
	HOP			.40	9.86**
	RSES			.13	3.23**
Model 4					
Step 1 (SHS/Dependent Variable)	Gender	.13	37.73**	-.09	-2.18*
	PWD			.35	8.37**
Step 2 (RSES/Dependent Variable)	Gender	.01	3.69*	.02	.37
	PWD			-.12	-2.69*
Step 3 (SHS/Dependent Variable)	Gender	.16	30.77**	-.09	-2.28*
	PWD			.38	8.88**
	RSES			.16	3.85**

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

Regression analysis of the mediating role of RSES in the relationship between CDS (SC, SB, HOP, PWD subscales) and SHS was conducted in 3 steps, as per Baron and Kenny (1986), and the findings are shown in Table 3.

As preliminary analysis showed that there was a gender-based difference in SHS scores, for each model and step of the analysis, gender was entered as a control variable in the first block. In the first step, CDS's SC subscale (β = .38, t = 9.19, p < .01), SB subscale (β = .27, t = 6.33, p < .01), HOP subscale (β = .39, t = 9.65, p < .01) and PWD subscale (β = .35, t = 8.37, p < .01) positively and significantly predicted SHS. In the second step, CDS's SC subscale (β = -.11, t = -2.50, p < .05) and PWD subscale (β = -.12, t = -2.69, p < .05) negatively and significantly predicted RSES. CDS's SB subscale (β = -.07, t = -1.59, p > .05) and HOP subscale (β = -.04, t = -.86, p > .05) were not significant predictors of the RSES. In the third step, it was observed that when taken together with the moderator variable (RSES), there was an increase in the amount of relation between the CDS subscales SC, SB, HOP and PWD with SHS (see Table 3 and Figure 1). These findings indicate that the RSES did not have a mediator effect on the relationships of CDS (SC, SB, HOP and PWD sub-scales) with SHS in the current study group.

Moderating Test Results

The moderator role of RSES in the relationship between CDS (SC, SB, HOP, PWD subscales) and SHS was tested via hierarchical regression analysis as per Baron and Kenny (1986). According to Frazier et al. (2004), the first step in formulating the regression equation involves centering or standardizing the predictor and moderator variables that are measured on a continuous scale. This is because predictor and moderator variables generally are highly correlated with the interaction terms created from them. Centering reduces problems associated with multicollinearity (i.e., high correlations) among the variables in the regression equation. In the present study, independent variables used to create interaction terms were first centered and the interaction terms were formed. Table 4 shows the results of four different hierarchical regression analyses. Each analysis was done in 4 steps. In the first step, gender was entered into the model as a control variable. In the second step, predictor variables (SC, SB, HOP, PWD subscales of CDS) were entered into the model. In the third step, the moderator variable RSES was entered into the model. Finally, interaction terms were entered into the model for the fourth step.

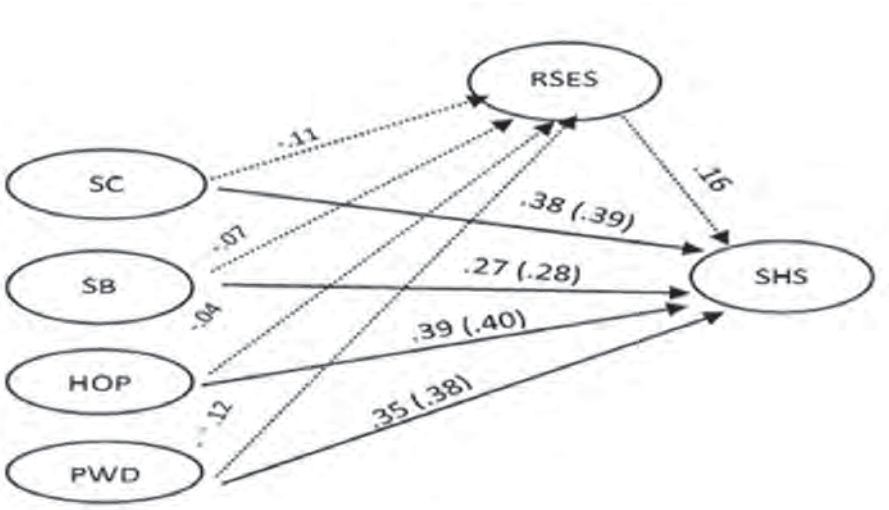

Figure 1: Relationships according to the predicted mediating model.

Table 4
Hierarchical Regression Analysis of the Moderation Role of RSES in the Relationship between CDS (SC, SB, HOP, PWD Subscales) and SHS

	β	*t*	R^2	*F*
Gender	-.09	-2.19**	.01	4.74*
SC	.38	9.47***	.15	44.94***
RSES	.10	2.41**	.18	35.88***
RSESxSC	-.20	-4.68***	.21	33.52***
Gender	-.10	-2.31*	.01	4.74*
SB	.28	6.75***	.08	22.61***
RSES	.09	2.05*	.10	18.73***
RSESxSB	-.13	-2.90**	.12	16.36***
Gender	-.10	-2.68**	.01	4.74*
HOP	.40	10.33***	.16	49.36***
RSES	.08	2.06*	.18	37.01***
RSESxHOP	-.23	-5.62***	.23	37.37***
Gender	-.09	-2.13*	.01	4.74*
PWD	.36	8.70***	.13	37.72***
RSES	.12	2.89**	.16	30.77***
RSESxPWD	-.15	-3.58***	.18	26.83***

***$p < .001$; **$p < .01$; *$p < .05$.

The variable *gender* was included in the analysis during the first block in order to control its possible effects. Results of the hierarchical regression analysis (see Table 4) showed that the CDS's SC subscale (β = .38, $t = 9.47$, $p < .001$), SB subscale (β = .28, $t = 6.75$, $p < .001$), HOP subscale (β = .40, $t = 10.33$, $p < .001$) and PWD subscale (β = .36, $t = 8.70$, $p < .001$) positively predicted SHS. More importantly, the RSES x SC interaction (β =-.20, $t = -4.68$, $p < .001$), RSES x SB interaction (β = -.13, $t = -2.90$, $p < .01$), RSES x HOP interaction (β = -.23, $t = -5.62$, $p < .001$) and RSES x PWD interaction (β = -.15, $t = -3.58$, $p < .001$) were significant. As a result, RSES has a moderating effect on the relationship between CDS's SC, SB, HOP and PWD subscales scores and SHS scores. Figures 2, 3, 4, and 5 showed that higher levels of CDS (SC, SB, HOP and PWD) are related to more SHS for teacher candidates who have low RSES scores.

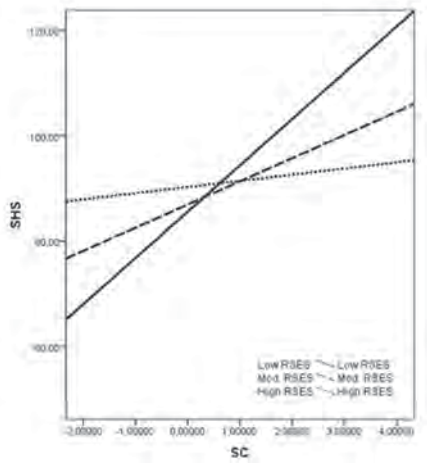

Figure 2: Interaction effects between RSES and SC on SHS.

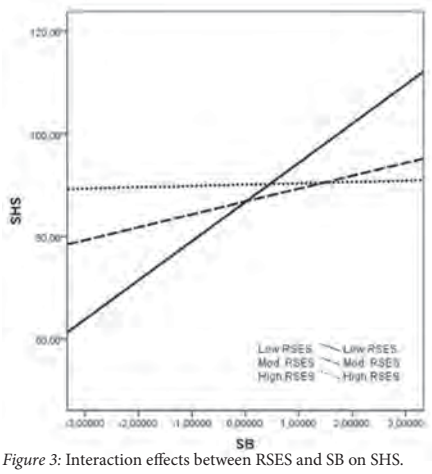

Figure 3: Interaction effects between RSES and SB on SHS.

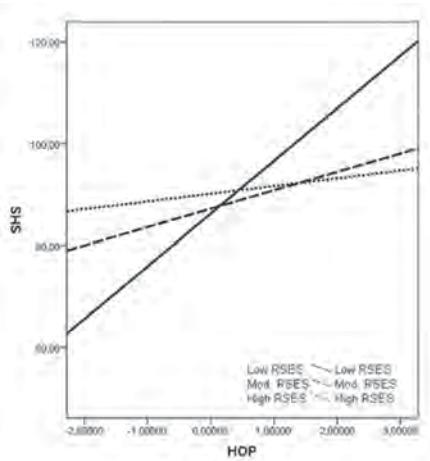

Figure 4: Interaction effects between RSES and HOP on SHS.

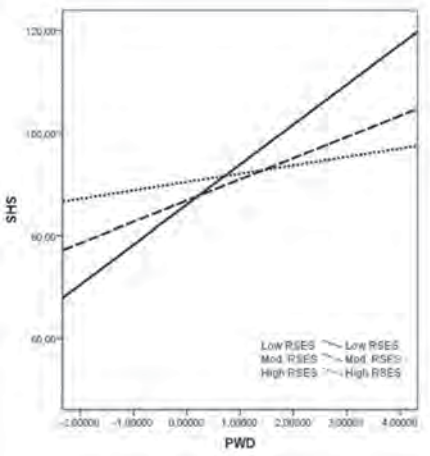

Figure 5: Interaction effects between RSES and PWD on SHS.

Discussion

In this study, the relationship between cognitive distortions, self-handicapping tendencies, and self-esteem were examined in a sample of prospective teachers. A preliminary analysis was conducted to test whether the tendencies differed depending on gender. It was concluded that female students had higher self-handicapping scores when compared to male students. The literature on self-handicapping includes many studies that find men resorting to self-handicapping strategies more often than women (e.g., Kimble et al., 1998; Rhodewalt & Davison, 1986). Some other authors have reported that self-handicapping does not differ depending on gender (e. g., Leondari & Gonida, 2007). In fact, research findings in the literature on gender are rather complicated. Therefore authors have conducted detailed studies thinking that gender differences might be correlated to self-handicapping forms. Some of them have found that men more often use behavioral strategies whereas women more often employ claimed strategies (Hirt & McCrea, 2009; McCrea, Hirt, & Milner, 2008). In some other studies, it has been discovered that women use behavioral strategies as often as men (Ferrari & Tice, 2000; Tice, 1991; Tice & Baumeister, 1990). Men are more likely to attribute successful performance to talent while women tend to attribute success to luck while blaming lack of ability for failure (McCrea et al., 2008; Meyer, 2000). This might mean that men, when more sensitive to failure and under more pressure to be competent, will have a higher tendency to be self-handicapping. Nevertheless, Rhodewalt and Davison (1986) did not find any difference between men and women in terms of the way attribution was made. Gender differences might be concerned with the importance of task domain to an individual. Meyer (2000) reported that men displayed a tendency towards self-handicapping especially with tasks that included the use of mental abilities, whereas women tended to get involved in self-handicapping particularly for tasks that required the use of social abilities. On the other hand, Kimble, Funk, and DaPolito (1990) found that both men and women had a tendency towards self-handicapping in social fields.

In addition, self-handicapping is concerned with low and high self-esteem (Tice, 1991). Studies on gender differences in which self-esteem was the controlled variable yielded no difference between men and women in terms of the level of tendency towards self-handicapping (McCrea & Hirt, 2001). In this study,

when self-esteem was controlled, it was found that gender differences had an effect on self-handicapping scores. The difference between the related study and this may be due to cultural differences. Hofstede (1980) argues that individualism is a common characteristic of many English-speaking countries (as cited in Abacı & Akın, 2011). In Turkish society, collectivism is more effective than individualism (Kağıtçıbaşı, 2005). Self-handicapping in collectivist societies might be motivated more by a need to protect public esteem, whereas in individualistic societies it might result more from the necessity to protect private self-esteem (Pulford et al., 2005). Most studies about self-handicapping are conducted in Western cultures. Therefore, new research in Turkish culture is required to determine the role of gender on self-handicapping. Finally, while this gender difference in self-handicapping behavior has been documented in laboratory studies, to date it is not clear whether this difference is found in field studies (Ferrari & Tice, 2000; Tice, 1991; Tice & Baumeister, 1990). One field study of college students by Feick and Rhodewalt (1997) reported that women tend to score higher on the self-handicapping scale (as cited in Warner & Moore, 2004). The present study supports the same previous findings.

In the current study, it was found that CDS's SC, SB, HOP and PWD subscales along with RSES positively and significantly predicted SHS (see Table 3 & 4). In parallel with the findings of the present study, the literature on self-esteem considers high self-esteem to be positively correlated to self-handicapping (e.g., Lupien et al., 2010; Rhodewalt & Hill, 1995; Rhodewalt et al., 1984; Thompson & Dinnel, 2007). There are several fundamental ideas that individuals with a high level of self-esteem will have a higher tendency toward self-handicapping. Since they do not expect failure in a task that they attach importance to, such individuals will suffer from a heavier breakdown in the event of failure. Therefore, they will use self-handicapping strategies more often than others (Tice & Baumeister, 1990). Similarly, Beck, Koons, and Milgrim (2000) maintained that individuals with a high level of self-esteem not only had confidence in success but also a wish to prove themselves, which in turn triggered self-handicapping behaviors (i.e., being successful in spite of obstacles means having a high level of ability).

Found to be one of the predictors of the SHS in the present study, CDS's SC subscale refers to low self-esteem and dislike for oneself. Studies have reported that individuals with low self-esteem resort to self-handicapping strategies, too (e.g., Prapavessis & Grove, 1998; Pulford et al., 2005; Tice & Baumeister, 1990). Self-handicapping serves as self-protection and self-reinforcement (Tice, 1991). More motivated to avoid negative criticism, individuals with a low level of self-esteem employ self-handicapping strategies more often than others in order to protect or boost their self-esteem (Tice & Baumeister, 1990). To sum up, studies in the literature make one think that individuals with a high or low level of self-esteem are motivated by different objectives. Whereas the former group of individuals (high self-esteem) is motivated by the desire to boost their self-image, the latter group (low self-esteem) is driven by the will to protect their self-image (Tice, 1991). Therefore, it can be argued that self-handicapping acts as a protector and booster of self-image for individuals with a low or high level of self-esteem respectively. The findings of the present study are consistent with those in the literature.

Self- blame (SB) is defined as a tendency to criticize oneself for negative events. On the other hand, self-handicappers being different from other individuals make less internal attributions (Abacı & Akın, 2011, p. 97). With this pattern, self-handicappers try to reduce the charges against them in case of failure. Therefore it was theoretically expected that the CDS SB subscale negatively predicted SHS. But the result was not as expected. The CDS SB subscale positively predicted SHS. On the other hand, in parallel with results of this study, Zuckerman et al. (1998) reported that a higher level of SHS was associated with increases in self-blame. The CDS HOP-subscale is another predictor of the SHS, as revealed by the present study. A review of literature indicates that there has been no study on the correlation between self-handicapping and hopelessness. As a trait that motivates individuals to take action and provides them with a feeling of well-being, hope is a driving force that enriches their lives. Snyder, LaPointe, Crowson, and Early (1998) defined hope as "a cognitive set that is based on a reciprocally derived sense of being successful *(i)* agency (goal directed determination) and *(ii)* pathways (planning of ways to meet goals)." Therefore, self-handicapping can be detrimental to the process of hope because it undermines the ability to take responsibility for choices. The antonym of hope, hopelessness, can be defined as not having that motivation (Ağır, 2007). Briere (2000) describes hopelessness as a pessimistic perception and image of the future. A hopeless person expects that negative developments will happen, or at least, positive developments will not take place with the things they attach importance

to. They believe that nothing can change this situation (O'connor, Cennery, & Cheyne, 2000). Hope includes the expectation that plans put into action for a purpose will be fruitful whereas hopelessness is characterized by the estimation or expectation of failure. Previous research suggests that self-handicapping is a strategy whose use is motivated by fear of failure (Elliot & Church, 2003; Smederevac et al., 2003). Furthermore, hopelessness is reported to protect individuals against disappointment by lowering or excessively raising (hardly anyone can meet these standards) their expectations of performance (Leahy, 1997). In other words, hopelessness can be an excuse for low performance. It is arguably necessary to carry out more comprehensive studies in order to evaluate the reasons underlying this finding in greater detail.

The mediator and moderator role of self-esteem on the relation between cognitive distortions and self-handicapping was the major question of this study. It was found that self-esteem did not have a mediator role in the relationship between cognitive distortions (SC, SB, HOP and PWD) or self-handicapping in the current study group (see Table 3). However, it was found that the interaction between self-esteem and cognitive distortions (SC, SB, HOP and PWD) had a significant effect on self-handicapping. As a result, the study revealed important findings regarding the moderator role of self-esteem on the relation between cognitive distortions (self-criticism, self-blame, hopelessness, and preoccupation with danger) and self-handicapping. A moderator is a variable that alters the direction or strength of the relation between a predictor and a dependent variable (Baron & Kenny, 1986). Thus, a moderator effect is nothing more than an interaction whereby the effect of one variable depends on the level of another (Frazier et al., 2004). According to this result, higher levels of cognitive distortions (self-criticism, self-blame, hopelessness, and preoccupation with danger) were related to a high self-handicapping tendency for students with low self-esteem (see Figure 2, 3, 4 and 5). However, high self-esteem did not have such an effect (see Figure 2, 3, 4 and 5). The result shows that high self-esteem would buffer self-handicapping as the negative outcome of cognitive distortions for students. In other words, improving self-esteem may actually eliminate cognitive distortions, thus potentially decreasing self-handicapping tendencies. In the related literature, there has been no research examining the relationship between cognitive distortions and self-handicapping. However, there have been several studies examining the relationship between self-esteem and cognitive distortions (e.g., Daly & Burton, 1983; Hamarta & Demirbaş, 2009; Koydemir & Demir, 2008; Mclennan, 1987; Nasir et al., 2011; Nielsen et al., 1996). The studies mention that when self-esteem is high, cognitive distortion is low, and vice versa. These findings support the results of this study.

Several limitations of this study must be taken into consideration before its results can be evaluated properly. Firstly, the study was conducted at two universities, one being well-established while the other being new, in the central region of Anatolia in Turkey. This limits the possibility of generalizing the sample to all students in Turkey. The western part of Turkey is analogous with European culture whereas the eastern part coincides with Middle Eastern culture. Therefore, there is no doubt that studies with larger samples will yield more comprehensive and generalizable results. Another limitation is that the data was collected in accordance with the self-evaluations of the students. There might be differences between their real life behaviors and how they responded to the items in the scale. Therefore, the results should be interpreted within the limits of the measuring instruments.

Conclusion

The present study examined the relationship between cognitive distortions, self-handicapping tendencies, and self-esteem in a sample of students studying in a school of education. Results of the study showed that the CDS SC, SB, HOP and PWD subscales and RSES positively and significantly predicted the SHS. Another finding of this research showed the moderator role of self-esteem on the relation between cognitive distortions (self-criticism, self-blame, hopelessness, and preoccupation with danger) and self-handicapping. In other words, higher levels of cognitive distortions (self-criticism, self-blame, hopelessness, and preoccupation with danger) were related to higher self-handicapping tendencies for teacher candidates with low self-esteem

Owing to its paradoxical nature, self-handicapping protects and reinforces self-esteem. It also damages performance, however. In the long run, it leads to such problems as inadaptability, negative affectations, somatic symptoms, and substance abuse. It is inevitable that students studying in a school of education will take on crucial tasks not only during their training but also in their

professional lives. Thus, they are in a high-risk group in terms of suffering from the adverse effects of self-handicapping. Therefore, it can be argued that self-handicapping behaviors can be effectively changed for the better through individual or group counseling based on the cognitive-behavioral approach by aiming to reveal and modify distorted and dysfunctional thought patterns.

Another conclusion from the study is that females have higher self-handicapping scores then males. Although the literature on the matter suggests that men use self-handicapping strategies more often than women, research findings are rather complicated. In Turkey, however, no study has yet been conducted on this issue. Detailed and experimental studies are required for clarifying the role of gender on the tendency to self-handicap.

References

Abacı, R., & Akın, A. (2011). *Kendini sabotaj. [Self handicapping]*. Ankara: Pegem A Akademi.

Ağır, M. (2007). Üniversite öğrencilerinin *bilişsel* çarpıtma *düzeyleri ile problem* çözme *becerileri ve umutsuzluk düzeyleri arasındaki ilişki [The relationship between cognitive distortion, hopelessness, and personal problem solving on college students]* (Doctoral dissertation, Istanbul University, Turkey). Retrieved from https://tez.yok.gov.tr/UlusalTezMerkezi/

Akın, A. (2012). Self-handicapping scale: A study of validity and reliability. *Education and Science, 37*(164), 176-187.

Alter, A. L., & Forgas, J. P. (2007). On being happy but fearing failure: The effect of mood on self-handicapping strategies. *Journal of Experimental Social Psychology, 43,* 947-954. doi:10.1016/j.jesp.2006.07.009

Avtgis, T. A., Rancer, A. S., & Amato, P. P. (1998). Self-handicapping orientation and tendencies toward verbal aggressiveness. *Communication Research Reports, 15*(2), 226-234. doi:10.1080/08824099809362117

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic and statistical considerations. *Journal of Personality and Social Psychology, 51*(6), 1173-1182.

Bartels, J. M., & Herman, W. E. (2011, May). *Fear of failure, self-handicapping, and negative emotions in response to failure*. Paper presented at the Annual Convention of the Association for Psychological Science (APS). (Eric Document Reproduction Service No ED524320). Retrieved from http://www.eric.ed.gov/PDFS/ED524320.pdf

Beck, A. T. (1976). *Bilişsel terapi ve duygusal bozukluklar. [Cognitive therapy and the emotional disorders]*. (trans. A. Türkcan & V. Öztürk). İstanbul: Litera Yayıncılık.

Beck, B. L., Koons, S. R., & Milgrim, D. L. (2000). Correlates and consequences of behavioral procrastination: The effects of academic procrastination, self-consciousness, self-esteem and self-handicapping. *Journal of Social Behavior and Personality*, *15*(5), 3-13.

Beck, J. S. (2006). *Bilişsel terapi: Temel ilkeler ve* ötesi (Ed. F. Balkaya & A. Ilden Koçkar, trans. N Hisli Şahin). Ankara: Türk Psikologlar Derneği Yayınları.

Bowins, B. (2004). Psychological defense mechanisms: A new perspective. *American Journal of Psychoanalysis, 64*(1), 1–26.

Briere, J. (2000). *Cognitive Distortion Scales: Professional manual.* Lutz, FL: Psychological Assessment Resources, Inc.

Çuhadaroğlu, F. (1986). *Adolesanlarda benlik saygısı [Self-esteem in adolescents]* (Doctoral dissertation, Hacettepe University, Turkey). Retrieved from https://tez.yok.gov.tr/UlusalTezMerkezi/

Daly, M. J., & Burton, R. L. (1983). Self-esteem and irrational beliefs: An exploratory investigation with implications for counseling. *Journal of Counseling Psychology, 30*(3), 361-366. doi:10.1037/0022-0167.30.3.361

Elliot, A. J., & Church, M. A. (2003). A motivational analysis of defensive pessimism and self-handicapping. *Journal of Personality, 71*(3), 369-396.

Ferrari, J. R., & Tice, D. M. (2000). Procrastination as a self-handicap for men and women: A task-avoidance strategy in a laboratory setting. *Journal of Research in Personality, 34,* 73-83. doi:10.1006/jrpe.1999.2261

Frazier, A P., Tix, P A., & Barron, E. K. (2004). Testing moderator and mediator effects in counseling psychology research. *Journal of Counseling Psychology, 51*(1), 115-34. doi:10.1037/0022-0167.51.1.115

Hamarta, E., & Demirbaş, E. (2009). Lise öğrencilerinin utangaçlık ve benlik saygılarının fonksiyonel olmayan tutumlar açısından incelenmesi [Examination of shyness and self-esteem of high school students from the point of view of dysfunctional attitude]. *Selçuk* Üniversitesi *Sosyal Bilimler Enstitüsü Dergisi, 21*, 239-247.

Hiçdurmaz, D., & Öz, F. (2011). Benliğin bilişsel yaklaşımla güçlendirilmesi [Empowerment of self via cognitive approach]. *Sağlık Bilimleri Fakültesi Hemşirelik Dergisi,* 68-78.

Hirt, E. R., & McCrea, S. M. (2009). Man smart, woman smarter? Getting to the root of gender differences in self-handicapping. *Social and Personality Psychology Compass, 3*, 1-15.

Kağıtçıbaşı, C. (2005). Autonomy and relatedness in cultural context: Implications for self and family. *Journal of Cross-Cultural Psychology, 36*(4), 403-422. doi:10.1177/0022022105275959

Karaatlı, M. (2006). Verilerin düzenlenmesi ve gösterimi [Regulation and representation of the data]. In S. Kalaycioglu (Ed.), *SPSS applied multivariate statistical techniques* (2nd ed., pp. 3-47). Ankara: Asil Publication Distribution.

Kaya, N. G. (2007). *The role of self-esteem, hope and external factors in predicting resilience among regional boarding elementary school students* (Master's thesis, Middle East Technical University, Ankara, Turkey). Retrieved from https://tez.yok.gov.tr/UlusalTezMerkezi/

Kearns, H., Forbes, A., & Gardiner, M. (2007). A cognitive behavioural coaching intervention for the treatment of perfectionism and self-handicapping in a nonclinical population. *Behaviour Change, 24*(3), 157-172.

Kimble, C. E., Funk, S. C., & DaPolito, K. L. (1990). The effects of self-esteem certainty on behavioral self-handicapping. *Journal of Social Behavior and Personality, 5*(3), 137-149.

Kimble, C. E., Kimble, E. A., & Croy, N. A. (1998). Development of self-handicapping tendencies. *The Journal of Social Psychology, 138*(4), 524-534.

Koydemir, S., & Demir, A. (2008). Shyness and cognitions: An examination of Turkish university students. *The Journal of Psychology, 142*(6), 633-644.

Leahy, R. L. (1997). An investment model of depressive resistance. *Journal of Cognitive Psychotherapy: An International Quarterly, 11*(1), 3-19.

Leondari, A., & Gonida, E. (2007). Predicting academic self-handicapping in different age groups: The role of personal achievement goals and social goals. *British Journal of Educational Psychology, 77*, 595-611. doi:10.1348/000709906X128396

Lupien, S. P., Seery, M. D., & Almonte, J. L. (2010). Discrepant and congruent high self-esteem: Behavioral self-handicapping as a preemptive defensive strategy. *Journal of Experimental Social Psychology, 46,* 1105-1108. doi:10.1016/j.jesp.2010.05.022

Martin, K. A., & Brawley, L. R. (1999). Is the self-handicapping scale reliable in non-academic achievement domains? *Personality and Individual Differences, 27*(5), 901-911.

McCrea, S. M., & Hirt, E. R. (2001). The role of ability judgments in self-handicapping. *Personality and Social Psychology Bulletin, 27*(10), 1378-1389.

McCrea, S. M., Hirt, E. R., & Milner, B. J. (2008). She Works hard for the Money: Valuing effort underlies gender differences in behavioral self-handicapping. *Journal of Experimental Social Psychology, 44*, 292-311. doi:10.1016/j.jesp.2007.05.006

Mclennan J. P. (1987). Irrational beliefs in relation to self-esteem and depression. *Journal of Clinical Psychology, 43*(1), 89-91.

Meyer, C. L. (2000). Academic procrastination and self-handicapping: Gender differences in response to noncontingent feedback. *Journal of Social Behavior and Personality*, *15*(5), 87-102.

Nasir, R., Zainah, A. Z., Khairudin, R. Ismail, R., Yusooff, F., & Lukman, Z. M. (2011). Psychological factors of self-esteem and cognitive distortion in prostitution. *World Applied Sciences Journal (Special Issue of Social and Psychological Sciences for Human Development), 12*, 35-39.

Nielsen, D. M., Horan, J. J., Keen, B., St. Peter, C. C., Ceperich, S. D., & Ostlund, D. (1996). An attempt to improve self-esteem by modifying specific irrational beliefs. *Journal of Cognitive Psychotherapy: An International Quarterly, 10*(2), 137-149.

O'Connor, R. C., Connery, H., & Cheyne, W. M. (2000). Hopelessness: The role of depression, future directed thinking and cognitive vulnerability. *Psychology, Health and Medicine, 5*(2), 155-162.

Prapavessis, H., & Grove, J. R. (1998). Self- handicapping and self-esteem. *Journal of Applied Sport Psychology, 10*(2), 175-184. doi:10.1080/10413209808406386

Pulford, B. D., Johnson, A., & Awaida, M. (2005). A cross-cultural study of predictors of self-handicapping in university students. *Personality and Individual Differences, 39*(4), 727-737. doi:10.1016/j.paid.2005.02.008

Rhodewalt, F. (1994). Conceptions of ability, achievement goals, and individual differences in self-handicapping behavior: On the application of implicit theories. *Journal of Personality, 62*(1), 67-85.

Rhodewalt, F., & Davison, J. (1986). Self-handicapping and subsequent performance: Role of outcome valence and attributional certainty. *Basic and Applied Social Psychology, 7*(4), 307-322.

Rhodewalt, F., & Hill, S. K. (1995). Self-handicapping in the classroom: The effects of claimed self-handicaps on responses to academic failure. *Basic and Applied Social Psychology, 16*(4), 397-416.

Rhodewalt, F., Saltzman, A., & Wittmer, J. (1984). Self-handicapping among competitive athletes: The role of practice in self-esteem protection. *Basic and Applied Social Psychology, 5*(3), 197-209.

Smederevac, S., Novovic, Z., Milin P., Janicic, B., Pajic, D., & Biro, M. (2003). Tendency to self-handicapping in the situation of expected failure. *Psihologija, 36*(1-2), 39-58.

Snyder, C. R., LaPointe, A. B., Crowson, J. J., & Early, S. (1998). Preferences of high-and low-hope people for self-referential input. *Cognition and Emotion, 12*(6), 807-823. doi:10.1080/026999398379448

Stevens, J. P. (2002). *Applied multivariate statistics for the social sciences* (4th ed.). Mahwah, NJ: Lawrence Erlbaum Associates, Publishers.

Tabachnick, B. G., & Fidell, L. S. (2001). *Using multivariate statistics* (4th ed.). Boston, MA: Allyn and Bacon.

Thompson, T., & Dinnel, D. L. (2007). Is self-worth protection best regarded as intentional self-handicapping behaviour or an outcome of choking under pressure? *Educational Psychology, 27*(4), 509-531. doi:10.1080/01443410601159910

Tice, D. M. (1991). Esteem protection or enhancement? Self-handicapping motives and attributions differ by trait self-esteem. *Personality Processes and Individual Differences, 60*(5), 711-725.

Tice, D. M., & Baumeister, R. F. (1990). Self-esteem, self-handicapping, and self-presentation: The strategy of inadequate practice. *Journal of Personality, 58*(2), 443-464.

Warner, J., & Moore, S. (2004). Excuses, excuses: Self-handicapping in an Australian adolescent sample. *Journal of Youth and Adolescence, 33*(4), 271-281.

Zuckerman, M., & Tsai, F. F. (2005). Cost of self-handicapping. *Journal of Personality, 73*(2), 411-442. doi:10.1111/j.1467-6494.2005.00314.x

Zuckerman, M., Kieffer, S. C., & Knee, C. R. (1998). Consequences of self-handicapping: Effects on coping, academic performance, and adjustment. *Journal of Personality and Social Psychology, 74*(6), 1619-1628.