

An Investigation of the Relationships between Self-Handicapping and Depression, Anxiety, and Stress

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Abstract

This study investigated the relationships between self-handicapping and depression, anxiety, and stress. The sample of study consists of 336 university students. In this study, the Self-handicapping Scale and the Depression Anxiety Stress Scale (DASS) were used. The relationships between self-handicapping and depression, anxiety, and stress were examined using correlation and structural equation modeling. Results demonstrated that self-handicapping positively related to depression, anxiety, and stress. The structural model fitted well to the data ($\chi^2/df=1.18$, $p=0.317$, GFI=1.00, AGFI=.99, CFI=1.00, NFI=.96, IFI=1.00, RFI=.99, and RMSEA=.014) and also accounted for 17% of the depression, 24% of the anxiety, and 27% of the stress variances. According to path analysis results, depression, anxiety, and stress were predicted positively by self-handicapping.

Key Words: Self-handicapping, depression, anxiety, stress, path analysis, university students

Introduction

In social psychology a great deal traditional and contemporary theory and research has been based on the premise that people are motivated to seek information about their ability (Kolditz & Arkin, 1982). For instance, Festinger's (1954) social comparison theory supposes that "there exists, in the human organism, a drive to evaluate his opinions and his abilities" (p. 117). Such an evaluation apparently aids the individual who seeks to behave adaptively. Heider's (1958) attribution theory posits a fundamental need for individuals to order and predict their environment. An individual who makes accurate and stable attributions about the environment and about him/herself stand a greater chance of understanding and controlling that environment.

Another fascinating idea on this area has been put forward by Berglas and Jones (1978), who have claimed and empirically proved (Berglas & Jones, 1978) that one particular set of circumstances would foster a preference to avoid diagnostic information about ability.

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They also proposed that individuals who experience uncertainty about their ability to perform a task would tend to choose a performance context that offered the opportunity to externalize (or excuse) failure. These individuals create obstacles to their achievement of success with the aim of having a ready-made excuse for failure if it occurs. Jones and Berglas (1978) first used the term *self-handicapping* to describe this situation and called these individuals as self-handicappers. Jones and Berglas continued as follows:

By finding or creating impediments that make good performance less likely, the strategist nicely protects his sense of self-competence. If the person does poorly, the source of failure is externalized in the impediment: . . . If the person does well, then he or she has done well in spite of less than optimal conditions (p. 201).

Afterwards the definition of self-handicapping has been extended by Snyder and Smith (1982) to include chronic self-handicaps. These chronic self-handicapping strategies are performance inhibiting dispositions and symptoms and allow the self-handicapper to maintain an environment that maximizes positive and minimizes negative feedback. Accordingly, self-handicappers use relatively consistent or chronic handicaps or symptoms which, though internal to the individual, facilitate an attribution other than to ability following poor performance. Snyder and Smith (1982) have argued that these “symptoms can be employed to secure tangible rewards that may also bolster the person’s sense of self-esteem and competence” (p. 107).

There is a relatively consensus on the classification of the self-handicapping strategies. Arkin and Baumgardner (1985) have classified various forms of self-handicaps into acquired obstacles (impediments that actually lower the likelihood of success) and claimed obstacles (impediments that people claim to have). Leary and Shepperd (1986) assigned the term behavioral self-handicapping to acquired self-handicaps (e.g., consuming alcohol) and the term self-reported handicapping to claimed self-handicaps (e.g., reporting high social anxiety). Behavioral self-handicapping involves actively creating a disadvantage for oneself before an evaluation. Self-reported self-handicapping behaviors on the other hand, are claims that a disadvantageous condition exists before an evaluation (Snyder, Smith, Augelli, & Ingram, 1985).

A wide variety of behaviors have been suggested as examples of behavioral self-handicapping, including procrastination (Lay, Knish, & Zanatta, 1992), withdrawal of effort (Smith Snyder, & Handelsman, 1982), lack of practice (Baumeister, Hamilton, & Tice, 1985; Pyszczynski & Greenberg, 1983; Rhodewalt, Saltzman, & Wittmer, 1984), not taking opportunities to practice (Bailis, 2001; Kimble, Kimble, & Croy, 1998; Tice & Baumeister, 1990), choice of debilitating performance settings (Rhodewalt & Davison, 1986; Shepperd & Arkin, 1989), drug use (Berglas & Jones, 1978; Kolditz & Arkin, 1982), alcohol use (Higgins & Harris, 1988; Jones & Berglas, 1978; Tucker, Vuchinich, & Sobell, 1981), lack of sleep (Rhodewalt & Davison, 1986; Shepperd & Arkin, 1989), choosing very difficult goals (Greenberg, 1985), and over-involvement with friends or activities. Behaviors fulfilling the function of self-reported self-handicapping include claiming test anxiety (Smith et al., 1982), social anxiety (Snyder et al., 1985), being in a bad mood (Baumgardner, Lake, & Arkin, 1985; Aypay and Eryilmaz, 2011), traumatic life events (DeGree & Snyder, 1985), illness and shyness (Snyder et al., 1985), psychological symptoms (Smith, Snyder, & Perkins, 1983; Schouten & Handelsman, 1987, Snyder et al., 1985), side effects of medication (Gibbons & Gaeddert, 1984), and emotional and physical symptoms (Smith et al., 1983).

Behavioral self-handicaps are a more costly, riskier strategy than claimed self-handicaps in that behavioral self-handicaps actually lower chances for success but also are more convincing and less disputable than their self-reported counterparts. For example, before a performance evaluation not practicing can provide an excuse for poor performance, but also decreases the likelihood of a successful performance. In contrast, simply claiming to be too anxious or tired also serves as an excuse for poor performance, but does not actually reduce the likelihood of success (Coudevylle, Martin Ginis, & Famose, 2008; Hirt, Deppe, & Gordon, 1991).

Research on self-handicapping has revealed a variety of maladaptive affective, cognitive, and behavioral correlates of handicapping as well as a variety of personality characteristics associated with the use of self-handicapping strategies. Some of these variables are reduced self-esteem (Lay & Silverman, 1996; Martin, Flett, Hewitt, Krames, &

Szanto, 1996; Saddler & Sacks, 1993; Strube, 1986), low feelings of extraversion (Strube, 1986) and self-determination (Knee & Zuckerman, 1998), a belief in innate ability (Rhodewalt, 1994), social anxiety (Strube, 1986), maladaptive perfectionism (Frost, Marten, Lahart, & Rosenblate, 1990; Hobden & Pliner, 1995), performance goals (Rhodewalt, 1994), academic underachievement (Zuckerman, Kieffer, & Knee, 1998), and lower achievement (Garcia, 1995; Midgley, Arunkumar, & Urda, 1996; Midgley & Urda, 1995; Urda, Midgley, & Anderman, 1998). Self-handicapping has also been linked to increased withdrawal and negative coping strategies, as well as to poorer study habits. Moreover, self-handicapping was found to predict, and be predicted by, poor adjustment over time, providing evidence of a negative cycle of behavior (Urda & Midgley, 2001; Zuckerman et al., 1998).

The Present Study

Despite the availability of considerable literature on depression, anxiety, and stress little research has been done to examine how these mood states are related to self-handicapping. Thus, the current study aims to examine the possible links between self-handicapping and depression, anxiety, and stress. Based on the positive relationships of self-handicapping with psychological maladaptive variables (Frost et al., 1990; Hobden & Pliner, 1995; Lay & Silverman, 1996; Martin et al., 1996; Saddler & Sacks, 1993; Strube, 1986), It is hypothesized that self-handicapping would be related positively to depression, anxiety, and stress. This model is represented schematically in Figure 1.

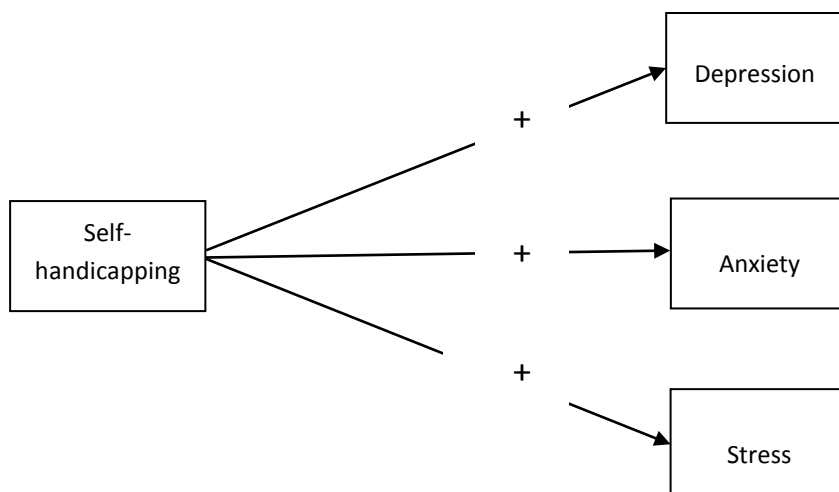


Figure 1. The hypothesized path model of self-handicapping depression, anxiety, and stress

Method

Participants

Participants were 336 university students (202 (60%) were female and 134 (40%) were male) enrolled in various undergraduate programs at Sakarya University Faculty of Education, Turkey. Of the participants, 76 (23%) were first-year students, 83 (25%) were second-year students, 92 (27%) were third-year students, and 85 (25%) were fourth-year student. Their ages ranged from 17 to 30 years old and GPA scores ranged from 1.64 to 3.75.

Measures

Self-handicapping scale. Self-handicapping was measured using the Self-handicapping Scale (Jones & Rhodewalt, 1982). Turkish adaptation of this scale was done by Akin, Abacı, and Akin (2010). The Self-handicapping Scale is a 25-item self-report inventory (e. g., Sometimes I get so depressed that even easy tasks become difficult) and each item was rated on a 6-point scale (1=*strongly disagree* to 6=*strongly agree*). This scale is a summative scale, with items 3, 5, 6, 10, 13, 20, 22, and 23 being reversed scored. All answers given will be totaled to indicate the level of self-handicapping, with a high number indicating a greater incidence of self-handicapping. Language validity findings of the Turkish version indicated that correlations between Turkish and English items ranged from .69 to .98. The internal consistency reliability coefficient was .90 and the three-week test-retest reliability coefficient was .84.

Depression Anxiety Stress Scale (DASS). Depression, anxiety, and stress were measured by using a Turkish version of the DASS (Lovibond & Lovibond, 1995). Turkish adaptation of the DASS had been done by Akin and Çetin (2007). The DASS is a 42-item self-report inventory that provides scores on three subscales: Depression (14-items), anxiety (14-items), and stress (14-items). Each item was rated on a 5-point scale. The language validity findings indicated that correlation between Turkish and English forms

was .96. Factor loadings of the subscales ranged from .39 to .88. The internal consistency alpha coefficients were found for depression, anxiety, and stress .90, .92, and .92 respectively. The test-retest reliability scores after three weeks were found .98 for three subscales. Related with the criterion-related validity of the scale, correlation coefficients between the DASS and the Beck Depression Inventory and the Beck Anxiety Inventory were computed as .87 and .84, respectively.

Procedure

Permission for participation of students was obtained from related chief departments and students voluntarily participated in research. Self-report questionnaires were administered in a quiet classroom setting and participants’ confidentiality and anonymity were assured. The scales were administered to the students in groups in the classrooms. The measures were counterbalanced in administration. Prior to administration of measures, all participants were told about purposes of the study. In this research, Pearson correlation coefficient and structural equation modeling (SEM) were utilized to determine the relationships between self-handicapping and depression, anxiety, and stress. These analyses were carried out via LISREL 8.54 (Jöreskog & Sorbom, 1996) and SPSS 13.0.

Findings

Descriptive Data and Inter-Correlations

Table 1 shows the means, descriptive statistics, inter-correlations, and internal consistency coefficients of the variables used.

Table 1 Descriptive statistics, Alphas, and Inter-correlations of the variables

Variables	Depression	Anxiety	Stress	Self-handicapping
Depression	—			
Anxiety	.833**	—		
Stress	.801**	.836**	—	
Self-handicapping	.408**	.487**	.455**	—
Mean	22,00	24,12	26,82	83,83
SD	7,32	7,60	8,71	13,83

Alpha	.87	.79	.82	.76
** $p < .01$				

When Table 1 is examined, it is seen that there are significant correlations between self-handicapping and depression, anxiety, and stress. Self-handicapping correlated positively with depression ($r = .408, p < .01$), anxiety ($r = .487, p < .01$), and stress ($r = .455, p < .01$).

Structural Equation Modeling

To test the hypothesis model (self-handicapping would be associated positively with depression, anxiety, and stress) SEM was used. Using SEM, all the parameters of models can be tested simultaneously in one step. The specifications on the model were for direct paths from self-handicapping to depression, anxiety, and stress. The results of testing whether self-handicapping has a direct effect on depression, anxiety, and stress are presented in Figure 2.

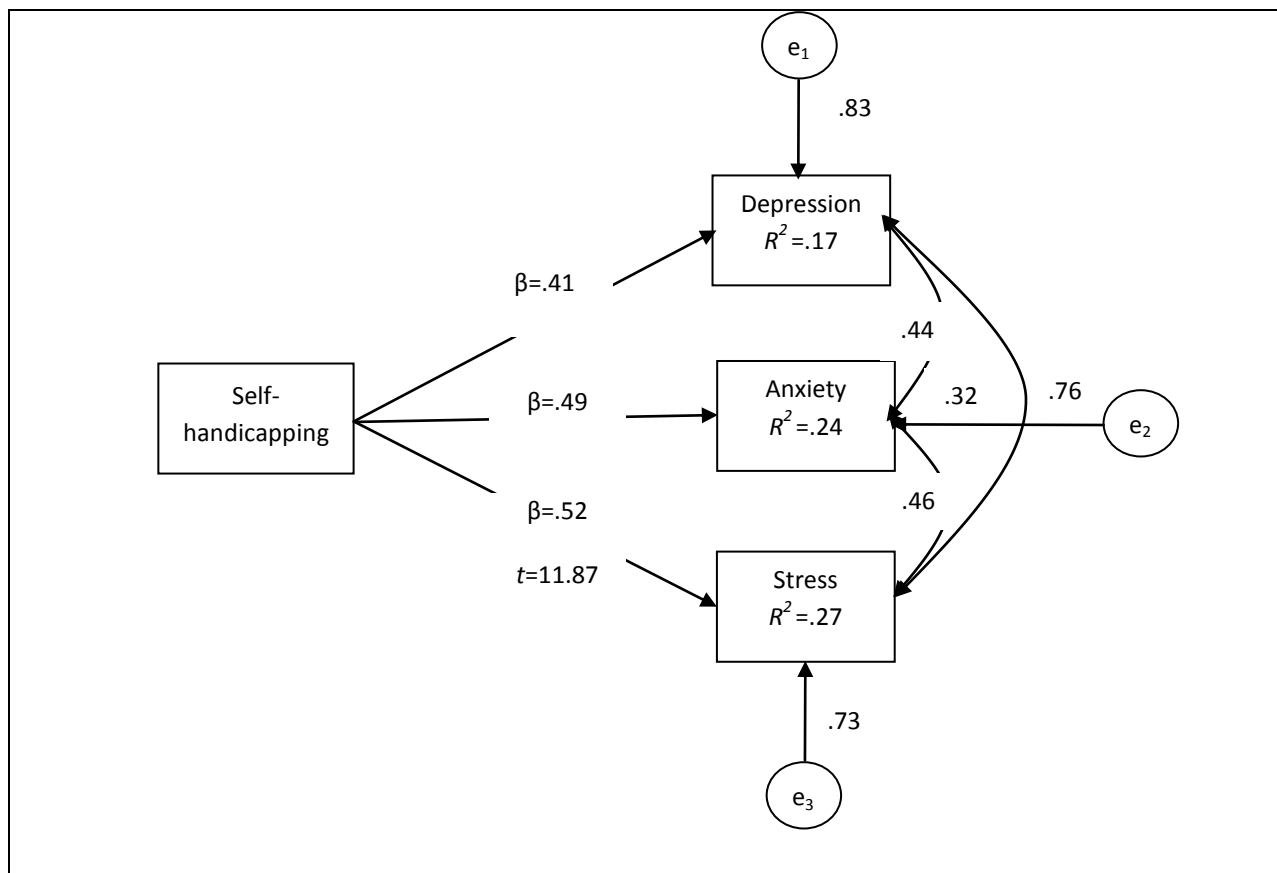


Figure 2. Path analysis between self-handicapping and depression, anxiety, and stress

The model demonstrated excellent fit ($\chi^2/df=1.18$, $p=0.317$, GFI=1.00, AGFI=.99, CFI=1.00, NFI=.96, IFI=1.00, RFI=.99, and RMSEA=.014) and also accounted for 17% of the depression, 24% of the anxiety, and 27% of the stress variances. It can be seen that depression ($\beta=0.41$), anxiety ($\beta=0.49$), and stress ($\beta=0.52$) were predicted positively by self-handicapping.

Discussion

This study marks the first attempt to relate self-handicapping to depression, anxiety, and stress. Self-handicapping was expected to be an important determinant of depression, anxiety, and stress and it was supposed that these three mood states would be associated positively with self-handicapping. The results of correlation and SEM confirm these hypotheses and show the importance of self-handicapping as proximal determinant of depression, anxiety, and stress. Also the goodness of fit indexes indicated that the model was acceptable and that correlations among measures were explained by the model (Hu & Bentler, 1999).

Even though no research directly examined whether the self-handicapping influences depression, anxiety, and stress, the positive correlation between self-handicapping and depression, anxiety, and stress is parallel with the findings of one study. The study of Greaven, Santor, Thompson, & Zuroff (2000) have shown that self-handicapping was more strongly related to boys' dysphoria which can be described a negative mood state-feelings of sadness, sorrow, anguish, misery, and mental malaise. It is possible that students who are depressive or anxious tend to use more escape-like responses to stressful events, as has been suggested by Adams and Adams (1991). Self-handicapping may be one option that allows "escape" from blame. Conversely, it may be that university students who are in a negative emotional mood state are more likely to endorse items that are indicative of a tendency to self-handicap. In addition, considering that other studies have found that self-handicapping has positive associations with some maladaptive variables such as reduced

self-esteem (Lay & Silverman, 1996; Martin et al., 1996; Saddler & Sacks, 1993; Strube, 1986), low feelings of extraversion (Strube, 1986) and self-determination (Knee & Zuckerman, 1998), social anxiety (Strube, 1986), and maladaptive perfectionism (Frost et al., 1990; Hobden & Pliner, 1995) the positive relationships between self-handicapping and the development of negative emotional mood states (i.e. stress, anxiety, and depression) are reasonable.

There are a number of other implications of this research. First, results of this study show that self-handicapping can be reliably assessed in university students, using Turkish version of the Self-Handicapping Scale and that self-handicapping is related to negative emotional mood states of university students. Second to the best knowledge of the author, this was the first study to employ this well-validated measure with a sample of Turkish university students. The relation between self-handicapping and depression, anxiety, and stress in university students is one which conceptually makes sense, but which had previously never been explored. And last, due to the correlational nature of this study, results cannot be discussed in terms of causality, but the relations between self-handicapping and depression, anxiety, and stress, at least for the university student population, offer interesting implications in terms of the interrelation between negative mood and self-handicapping behavior. However, because qualitative measure of self-handicapping wasn't used, the primary limitation of this study was the reliance on self-report measures. Also, the sample presented here is limited to university students. For that reason, it is questionable whether the findings can be generalized to different age groups.

Nevertheless further research investigating the relationships between self-handicapping and other psychological variables is needed, to support the findings of this study. Also, future studies should examine the relationships between self-handicapping and depression, anxiety, and stress with structural equation modeling, establishing a mediating or latent variable.

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Conclusions

The purpose of this study was to investigate the relationships between self-handicapping and depression, anxiety, and stress. This research reports that the self-handicapping is related to depression, anxiety, and stress directly. In other words students high in self-handicapping are more likely to be vulnerable related to factors of depression, anxiety, and stress. Therefore, current study would further our understanding of the emotional outcomes of self-handicapping. Nevertheless further research investigating the relationships between self-handicapping and other psychological variables is needed, to support the findings of this study. Also, future studies should examine the relationships between self-handicapping and depression, anxiety, and stress with structural equation modeling, establishing a mediating or latent variable.

References

- Adams, M., & Adams, J. (1991). Life events, depression, and perceived problem solving alternatives in adolescents. *Journal of Child Psychology and Psychiatry and Allied Disciplines*, 32, 811-820.
- Akın, A., Abacı, R., & Akın, Ü. (2010, April). *Self-handicapping Scale: A study of validity and reliability*. Paper presented at the 16th National Psychology Congress, 14-17 April, Mersin, Turkey.
- Akın, A., & Çetin, B. (2007). The Depression Anxiety and Stress Scale (DASS): The study of validity and reliability. *Educational Sciences: Theory & Practice*, 7(1), 241-268.
- Arkin, R. M., & Baumgardner, A. H. (1985). Self-handicapping. In J. H. Harvey, & G. Weary (Eds.), *Attribution basic issues and applications* (pp. 169–202). New York: Academic Press.
- Aypay, A & Eryilmaz, A. (2011). Relationships of high school student' subjective well-being and school burnout, *International Online Journal of Educational Sciences*, 3(1), 181-199.
- Bailis, D. S. (2001). Benefits of self-handicapping in sport: A field study of university athletes. *Canadian Journal of Behavioral Science*, 33(4), 213-223.
- Baumeister, R. F., Hamilton, J. C., & Tice, D. M. (1985). Public versus private expectancy of success. Confidence booster or performance pressure. *Journal of Personality and Social Psychology*, 48, 1447-1457.
- Baumgardner, A. H., Lake, E. A., & Arkin, R. M. (1985). Claiming mood as a self-handicap: The influence of spoiled and unspoiled public identities. *Personality and Social Psychology Bulletin*, 11, 349-357.
- Berglas, S., & Jones, E. E. (1978). Drug choice as a self-handicapping strategy in response to non-contingent success. *Journal of Personality and Social Psychology*, 36(4), 405–417.

- Coudevylle, G. R., Martin Ginis, K. A., & Famose, J.-P. (2008). Determinants of self-handicapping strategies in sport and their effects on athletic performance. *Social Behavior and Personality, 36*, 391-398.
- Degree, C. E., & Snyder, C. R. (1985). Adler's Psychology (of use) today: Personal history of traumatic life events as a self-handicapping strategy. *Journal of Personality and Social Psychology, 48*(6), 1512-1519.
- Festinger, L. (1954). A theory of social comparison processes. *Human Relations, 7*, 117-140.
- Frost, R. O., Marten, P., Lahart, C., & Rosenblate, R. (1990). The dimensions of perfectionism. *Cognitive Therapy and Research, 14*, 449-468.
- Garcia, T. (1995). The role of motivational strategies in self-regulated learning. *New Directions in Teaching and Learning, 63*, 29-42.
- Gibbons, F. X., & Gaeddert, W. P. (1984). Focus of attention and placebo utility. *Journal of Experimental Social Psychology, 20*, 159-176.
- Greenberg, J. (1985). Unattainable goal choice as a self-handicapping strategy. *Journal of Applied Social Psychology, 15*, 140-152.
- Heider, F. (1958). *The psychology of interpersonal relations*. New York: Wiley.
- Higgins, R. L., & Harris, R. N. (1988). Strategic alcohol use: Drinking to self-handicap. *Journal of Social and Clinical Psychology, 6*, 191-202.
- Hirt, E. R., Deppe, R. K., & Gordon, L. J. (1991). Self-reported versus behavioral self-handicapping: Empirical evidence for a theoretical distinction. *Journal of Personality and Social Psychology, 61*(6), 981-991.
- Hobden, K., & Pliner, P. (1995). Self-handicapping and dimensions of perfectionism: Self-presentation vs. self-protection. *Journal of Research in Personality, 29*, 461-474.

- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structural analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling, 6*, 1-55.
- Jones, E. E., & Berglas, S. (1978). Control of attributions about the self through self-handicapping strategies: The appeal of alcohol and the role of underachievement. *Personality and Social Psychology Bulletin, 4*, 200-206.
- Jones, E. E., & Rhodewalt, F. (1982). *The Self-handicapping Scale*. (Available from Frederick Rhodewalt, Department of Psychology, University of Utah, Salt Lake City, UT 84112).
- Jöreskog, K. G., & Sorbom, D. (1996). *LISREL 8 reference guide*. Lincolnwood, IL: Scientific Software International.
- Kimble, C. E., Kimble, E. A., & Croy, N. A. (1998). Development of self-handicapping tendencies. *The Journal of Social Psychology, 138*(4), 524-535.
- Knee, C. R., & Zuckerman, M. (1998). A non-defensive personality: Autonomy and control as moderators of defensive coping and self-handicapping. *Journal of Research in Personality, 32*(2), 115-130.
- Kolditz, T. A., & Arkin, R. M. (1982). An impression management interpretation of the self-handicapping strategy. *Journal of Personality and Social Psychology, 43*(3), 492-502.
- Lay, C., Knish, S., & Zanatta, R. (1992). Self-handicappers and procrastinators: A comparison of their practice behavior prior to an evaluation. *Journal of Research in Personality, 26*, 242-257.
- Lay, C., & Silverman, S. (1996). Trait procrastination, anxiety, and dilatory behavior. *Personality and Individual Differences, 21*, 61-67.
- Leary, M. R., & Shepperd, J. A. (1986). Behavioral self-handicaps versus self-reported self-handicaps: A conceptual note. *Journal of Personality and Social Psychology, 51*, 1265-1268.

- Lovibond, P. F., & Lovibond, S. H. (1995). The structure of negative emotional states: Comparison of the Depression Anxiety Stress Scale (DASS) with the Beck Depression and Anxiety Inventories. *Behavior Research and Therapy, 33*(3), 335-343.
- Martin, T., Flett, G., Hewitt, P., Krames, L., & Szanto, G. (1996). Personality correlates of depression and health symptoms: A test of a self-regulation model. *Journal of Research in Personality, 31*, 264-277.
- Midgley, C., Arunkumar, R., & Urdan, T. (1996). If I don't do well tomorrow, there's a reason: Predictors of adolescents' use of self-handicapping strategies. *Journal of Educational Psychology, 88*, 423-434.
- Midgley, C., & Urdan, T. (1995). Predictors of middle school students' use of self-handicapping strategies. *Journal of Early Adolescence, 15*, 389-411.
- Pyszczynski, T., & Greenberg, J. (1983). Determinants of reduction in intended effort as a strategy for coping with anticipated failure. *Journal of Research in Personality, 17*, 412-422.
- Rhodewalt, F. (1994). Conceptions of ability, achievement goals, and individual differences in self-handicapping behavior. *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), 307-323.
- Rhodewalt, F., Saltzman, A. T., & 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.
- Saddler, C. D., & Sacks, L. (1993). Multidimensional perfectionism and academic procrastination: Relationship with depression in university students. *Psychological Reports, 73*, 863-871.

- Schouten, P. G., & Handelsman, M. M. (1987). Social basis of self-handicapping: The case of depression. *Personality and Social Psychology Bulletin*, 13, 103-110.
- Shepperd, J. A., & Arkin, R.M. (1989). Determinants of self-handicapping: Task importance and the effects of pre-existing handicaps on self-generated handicaps. *Personality and Social Psychology Bulletin*, 15, 101-112.
- Smith, T. W., Snyder, C. R., & Handelsman, M. M. (1982). On the self-serving function of an academic wooden leg: Test anxiety as a self-handicapping strategy. *Journal of Personality and Social Psychology*, 42(2), 314-321.
- Smith, T. W, Snyder, C. R., & Perkins, S. C. (1983). The self-serving function of hypochondriacal complaints physical symptoms as self-handicapping strategies. *Journal of Personality and Social Psychology*, 44(4), 787-797.
- Snyder, C. R., & Smith, T. W. (1982). Symptoms as self-handicapping strategies: The virtues of old wine in a new bottle. In G. Weary, & H. L. Mirels (Eds.), *Integrations of clinical and social psychology* (pp. 104-127). New York: Oxford University Press.
- Snyder, C. R., Smith, T. W., Augelli, R. W., & Ingram, R. E. (1985). On the self-serving function of social anxiety: Shyness as a self-handicapping strategy. *Journal of Personality and Social Psychology*, 48(4), 970-980.
- Strube, M. J. (1986). An analysis of the Self-handicapping Scale. *Basic Applied Social Psychology*, 7(3), 211-224.
- Tice, D. M., & Baumeister, R. F. (1990). Self-esteem, self-handicapping, and self-presentation: The strategy of inadequate practice. *Journal of Personality*, 58, 443-464.
- Tucker, J., Vuchinich, R., & Sobell, M. (1981). Alcohol consumption as a self-handicapping strategy. *Journal of Abnormal Psychology*, 90(3), 220-230.
- Urduan, T., & Midgley, C. (2001). Academic self-handicapping: What we know, what more there is to learn? *Educational Psychology Review*, 13(2), 115-138.

Urduan, T., Midgley, C., & Anderman, E. (1998). The role of classroom goal structure in students' use of self-handicapping strategies. *American Educational Research Journal, 35*, 101-122.

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.