



Emotion Regulation Mediates the Relationship between Perfectionism and Self-handicapping among Dancers

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Abstract

The purpose of this study was to examine the mediating effect of emotion regulation in the relationship between perfectionism and self-handicapping. After 503 college dancers (414 females, 89 males) completed the battery of questionnaires, the data were analyzed for descriptive statistics and analyzed by frequency analysis, correlation analysis. The bootstrapping method was used to verify the statistical significance of the indirect effect. The results showed that the reappraisal of emotion-regulation significantly mediated the relationship between self-oriented perfectionism and behavioral self-handicapping. Also determined that the suppression of emotion regulation significantly mediated the relationship between socially prescribed perfectionism and claimed self-handicapping. This study demonstrates that perfectionism and self-handicapping will have a different relationship depending on dancers' types of emotion regulation. These findings provide valuable information on the psychological coping strategies used to control the negative emotion that are related to perfectionism among dancers.

Key words: emotion regulation, perfectionism, self-handicapping, dancers

Introduction

Dancing demonstrate proficient motor skills per se and express artistic ideas, skills, thoughts, and emotions through physical movements (Mehta & Choi, 2017). These complex performance demands may lead dancers to be particularly prone to an obsession with the performance act, doubt regarding personal ability to achieve goals, and excessive concern about critical pressure and potentially negative evaluations from others (Gaudreau & Thompson, 2010; Stoeber & Otto,

2006). Thus, dancers need to control and regulate physical, environmental, and psychological factors that may affect their psychological state and dance performance (Angioi et al., 2009).

Dancers practice numerous hours to be considered elite and professional and show flawless performance on stage (Cho et al., 2018). Perfectionism may be an essential characteristic to be successful dancers as well as athletes in competitive sports (Cumming & Duda, 2012; Nordin-Bates et al., 2011). Dancers with perfectionism characteristics hold themselves to high standards and exhibit intolerance for their own mistakes in practice or performance (Carr & Wyon, 2003). Research on perfectionism in dancers has demonstrated

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that perfectionism is related to performance cognition, emotion, and behavior (Nordin-Bates & Abrahamsen, 2016); for example, there is an established relationship between perfectionism and motivation (Nordin-Bates et al., 2017) and between perfectionism and self-concept (Eusanio et al., 2014). Perfectionism is multidimensional and comprises self-oriented perfectionism and socially prescribed perfectionism (Flett et al., 1994). Self-oriented perfectionists seek to meet the high standards set by themselves and evaluate their behaviors accordingly, whereas socially prescribed perfectionists seek perfection to meet others' high expectations (Flett et al., 1994). These two types of perfectionism tend to be mutually exclusive (Hewitt & Flett, 1991) and can be adaptive or maladaptive. Dancers striving for perfection may be highly self-critical, fear failure, feel pressure not to fail (Rice & Ashby, 2007), and have feeling pressured by others' expectations (Blatt, 1995). Their perfectionistic tendency for perfect dance performance may be vulnerable to stress or anxiety in rehearsals or performance situations, and they psychologically show a strong general desire for self-defense (Barrell & Terry, 2003). Research indicated a significant association of perfectionism with anxiety (Hamilton, 1998). Considering the complex performance characteristics of dancing and dancers' perfectionistic tendencies, dancers may adopt strategies to cope with stress and anxiety caused by critical self- or other-evaluations.

Self-handicapping deserves attention as one of the self-protection strategies. Self-handicapping is behavior by externalizing (or excusing) failure and internalizing (reasonably accepting credit for) success to proactively protect self-esteem from anticipated low or failure of performance (Jones & Berglas, 1978; Karner-Huțuleac, 2014). Self-handicapping can be categorized into claimed self-handicapping (i.e., people make excuses before a performance or before entering a threatening situation to an image of competency) and behavioral self-handicapping (i.e., they do something to create direct obstacles to their performance). People adopt claimed

self-handicapping more frequently because it does not affect their values as well as self-esteem (Hirt et al., 1991). Self-handicapping can have either a negative or positive effect on performance. Previous studies on the negative effects of self-handicapping show that some people exert insufficient performance effort or create obstacles to positive performance outcomes and then self-handicap as result of poor performance, thereby obscuring the cause of their poor performance. However, students who more frequently participate in self-handicapping behavior experience high anxiety and negative emotions (Thompson & Richardson, 2001), contributing to poorer performance (Martin et al., 2001; Urda, 2004; Zuckerman et al., 1998). Moreover, studies on athletes show that self-handicapping tendencies are positively correlated with anxiety (Prapavessis et al., 2003). Other studies, however, have shown that there are various positive effects of self-handicapping (Deppe & Harackiewicz, 1996; Martin et al., 2001). Self-handicapping may help individuals evaluate their abilities and maintain self-esteem despite their failures (Feick & Rhodewalt, 1997; McCrea, 2008), promote internal motivation, protect self-regard, and reduce debilitating inability attribution (Deppe & Harackiewicz, 1996; Ryska, 2003). Moreover, if someone performs well despite self-handicapping, they tend to show greater faith in their abilities than usual (Bailis, 2001; Rhodewalt et al., 1991; Tice & Baumeister, 1990). Furthermore, research has reported that self-handicapping positively affects performance (Hirt et al., 1991).

Studies have addressed the relationship between perfectionism and self-handicapping (Chen et al., 2009; Ferrari, 1992; Gilman & Ashby, 2003; Rhodewalt, 1994; Saddler & Sacks, 1993; Stoeber & Joormann, 2001; Walsh & Ugumba-Agwunobi, 2002; Karner-Huțuleac, 2014). Perfectionism is considered a key predictor of self-handicapping (Hobden & Pliner, 1995; Karner-Huțuleac, 2014). Perfectionists use self-handicapping to cope with their fear of failure, and they hide their inabilities and prevent self-esteem damage by creating excuses for performance failures (McCown

& Roberts, 1994). This process protects the perfectionist's self-image as a competent person and makes her/his ability and potential more apparent in case of success (Rhodewalt, 1990). Based on prior research, the form of self-handicapping may vary depending on the individual's perfectionism tendencies and whether they strive to meet their own or others' high standards and expectations.

Research shows perfectionism is correlated not only with self-handicapping but also with emotion. Socially prescribed perfectionists showed greater negative emotional regulation than did self-oriented perfectionists (Aldea & Rice, 2006). Perfectionists trying to meet their standards rather than other people's standards suffered less stress if they engaged in positive emotional regulation. Thus, emotional regulation is a critical factor in sport or dance performance's cognitive and behavioral aspects. Emotional regulation is the ability to manage and control one's emotions, which is a key factor in successful sports performance (Hanin, 2000), and consists of two types: reappraisal and suppression (Gross & John, 2003). Reappraisal positively directs emotions and may reduce risk factors by positively interpreting stressful situations (Gross, 1998), whereas suppression negatively directs emotional regulation and is considered a maladaptive response to various stress (Carver et al., 1989; Folkman & Lazarus, 1980). According to the emotional regulation model, successful emotional regulation leads to various positive changes in health, academic performance, and work performance (Brackett & Salovey, 2004; John & Gross,

2004). The form of self-handicapping used as a coping strategy may vary depending on how those vulnerable to stress and anxiety experience and regulate emotions.

As discussed above, dancers benefit from the use of psychological strategies to handle stress and anxiety to perform in accordance with their preparations. Even though many dancers self-handicap as part of a psychological performance strategy before or during a performance, empirical research on this behavior has been scarce. Accordingly, this study examined how variations in the multidimensional aspects of perfectionism among dancers affected their self-handicapping behavior. In addition, we build upon previous research by exploring emotional regulation as a mediating variable in the relationship between perfectionism and self-handicapping. The results of this study could provide a rationale for psychological skills instruction in dance colleges.

Methods

Participants

A total of 503 college dance students (mean age=21.41, SD=1.12; 414 female) participated in this study. The participants were specifically studying ballet (n=149), Korean dance (n=164), modern dance (n=176) and other relevant genres (n=14). On average the dancers had 8.59 years' experience within their dance style (SD=4.27). General characteristics of the participants in this study are shown in Table 1 below.

Table 1. General characteristics of the participants (n=503)

	Category	Frequency	Percent
Sex	Male	89	17.70
	Female	414	82.30
Type of dance	Ballet	149	29.62
	Korean dance	164	32.60
	Modern dance	176	35.00
	Others	14	2.78

Measurements

The survey package used for this study included a battery of questionnaires including demographic, perfectionism, emotional regulation, and self-handicapping questionnaires. A demographic questionnaire was used to obtain participants' information such as sex, age, school year, type of dance. The multidimensional perfectionism questionnaire (MPQ) was used to measure perfectionistic tendency in dancers. The MPQ was developed by Hewitt and Flett (1990) and later shortened by Cox, Enns, and Clara (2002), Oh and Yoo (2015) translated the MPQ into Korean and revised it to be used for dancers. The MPQ consists of 10 items in two subscales: self-oriented perfectionism (e.g., "one of my goals is to be perfect in everything I do") and socially prescribed perfectionism (e.g., "my family expects me to be perfect"). Each subscale contains 5 items measured on a 7-point Likert-type scale from 1 (strongly disagree) to 7 (strongly agree). Higher scores indicated higher levels of perfectionism. The internal consistencies of the two subscales were acceptable (i.e. Cronbach's alpha coefficients ranges from 0.80 to 0.83).

The emotional regulation questionnaire (ERQ) developed by Gross and John (2003) and translated and revised by Park and Yoo (2013) was used to measure emotional regulation in dancers. The ERQ measures two dimensions of emotional regulation: reappraisal (e.g., "I control my emotions by changing the way I think about the situations I'm in") and suppression (e.g., "I control my emotions by not expressing them"). The ERQ consists of 10 items (i.e., 6 items for reappraisal and 4 items for suppression) measured on a 7-point Likert-type scale from 1 (strongly disagree) to 7 (strongly agree). Higher scores indicated higher levels of the relevant factor. The internal consistencies of the two subscales were acceptable (i.e. Cronbach's alpha coefficients ranges from 0.74 to 0.84)

To measure self-handicapping strategies, the self-handicapping questionnaire (SHQ) was used, and it was developed by Jones and Rhodewalt (1982) and translated and modified to be suitable for Korean dancers

by Jeon, Lee, and Kwon (2011). The SHQ measures two types of self-handicapping: claimed self-handicapping (e.g., "when I do something wrong, my first impulse is to blame circumstances") and behavioral self-handicapping (e.g., "I tend to overprepare when I have any kind of performance"). There are 25 items, and each item was measured on a 6-point Likert-type scale from 1 (strongly disagree) to 6 (strongly agree), and higher scores indicated higher levels of the relevant factor. The internal consistencies of the two subscales were acceptable (i.e. Cronbach's alpha coefficients ranges from .72 to .80)

Procedures

After obtaining the ethical approval, the authors contacted directors of dance programs and explained the purpose and details of the purpose of this study. With director's permission, the authors visited their practice sites, informed the dancers of the purpose of the study and its procedures, and explained that their participation was voluntary and anonymous and that they could withdraw from the study participation without any penalty. Each dancer signed a written consent form before completing the battery of the questionnaires including demographic, perfectionism, emotional regulation, and self-handicapping questionnaires. It took approximately 20 minutes for the participants to respond to the questionnaires, and they did not receive any incentives for completing the surveys.

Data analysis

The Statistical Package of the Social Sciences (SPSS 23.0) was utilized to calculate the descriptive statistics, univariate skewness and kurtosis, and correlations. AMOS 23.0 was used to conduct the structural equation modeling (SEM) to identify the structural relationship among perfectionism, emotion-regulation, and self-handicapping in dancers. Specifically, two-step approach was utilized to examine both the measurement

model and structural model for the full structural relationship among variables (Anderson & Gerbing, 1988), and 2,000 bootstrap samples were requested to test the mediation effect analysis. With the chi-square (χ^2) test, Comparative Fit Index (CFI), and Tucker-Lewis Index (TLI), standardized root mean square residual (SRMR), and root mean square error of approximation (RMSEA) were calculated to evaluate the overall fit of the model. We follow the cut-off points for fit indices: the values of RMSEA below .08 (Klein, 2013), SRMR below .08 and CFI and TLI above .95 (MacCallum et al., 1996) were acceptable.

Results

Descriptive statistics and correlation analyses

Table 2 presents the results of the mean, standard deviation, skewness, kurtosis, and correlations. The values of skewness and kurtosis supported the univariate

normality. Self-oriented perfectionism showed significant positive correlations with reappraisal ($r = 0.23$) and behavioral self-handicapping ($r = 0.48$), whereas socially prescribed perfectionism had positive correlations with reappraisal, suppression, and behavioral and claimed self-handicapping ($r = 0.09$ and $r = 0.38$, respectively). There were a positive correlation between reappraisal and behavioral self-handicapping ($r = 0.19$) and between suppression and claimed self-handicapping ($r = 0.26$).

Measurement Model

The fit indices for the measurement model were $\chi^2(309) = 686.54$ ($p < 0.001$), CFI = 0.92, TLI = 0.90, SRMR = 0.06, and RMSEA = 0.05 with 90% CI [0.01, 0.05]. The measurement model fit was acceptable, and the standardized factor loading values of items in perfectionism ranged from 0.55 to 0.88 ($p < 0.001$), items in emotional regulation ranged from 0.52 to 0.84

Table 2. Means (*M*), standard deviation (*SD*), skewness, kurtosis, and correlations.

Variable	Mean	SD	Skewness	Kurtosis	1	2	3	4	5
1. Self-oriented	5.12	1.01	-0.39	-0.10	-				
2. Socially prescribed	4.16	1.15	-0.15	-0.06	0.24**	-			
3. Reappraisal	4.70	0.94	-0.25	0.70	0.23**	.012**	-		
4. Suppression	3.87	1.09	-0.12	-0.06	0.03	0.25**	0.11**	-	
5. Behavioral Self-Handicapping	4.49	0.72	-0.18	-0.01	0.48**	0.09**	0.19**	-0.02	-
6. claimed Self-Handicapping	3.44	0.88	0.22	0.19	0.03	0.38**	0.07	0.26**	-0.01

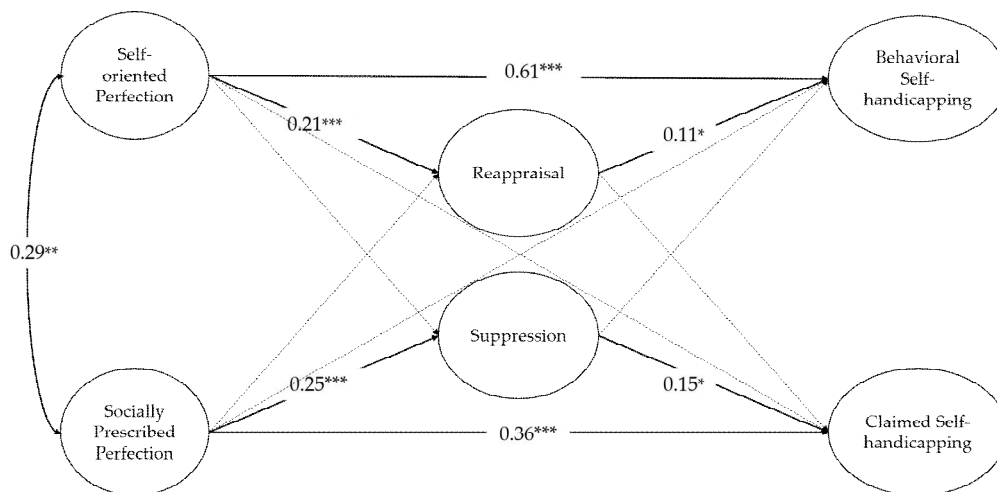
**Significant at level $p < 0.01$

Table 3. Bootstrapping results

Path of Mediation Effect				Indirect Effect	S.E	Sig	Bootstrapping BC 95% CI		
							Lower	Upper	
Self-Oriented Perfectionism	→	Reappraisal	→	Behavioral Self-Handicapping	0.019	0.01	0.05*	0.00	0.05
Socially-Prescribed Perfectionism	→	Suppression	→	Claimed Self-Handicapping	0.021	0.01	0.01**	0.01	0.05

* Significant at level $p < 0.05$

** Significant at level $p < 0.01$



* Significant at level $p < 0.05$

** Significant at level $p < 0.01$

*** Significant at level $p < 0.001$

Figure 1. Structural equation model with standardized estimates in the relations between perfectionism, emotional regulation, and self-handicapping. Significant paths are presented by solid arrows.

($p < 0.001$), and items in self-handicapping ranged from 0.48 to 0.69 ($p < 0.001$).

Structural Model

Path analyses of the structural model were conducted, and Figure 1 shows the results of the analyses. Significant paths are represented by solid arrows. The fit indices for the structural model were $\chi^2(311) = 690.45$ ($p < 0.001$), CFI = 0.91, TLI = 0.90, SRMR = 0.06, and RMSEA = 0.05 with 90% CI [0.01, 0.05], and thus, the structural model fit was acceptable. Self-oriented perfectionism was positively related to reappraisal ($\beta = 0.21$, $p < 0.001$) and behavioral self-handicapping ($\beta = 0.61$, $p < 0.001$), whereas socially prescribed perfectionism was positively related to suppression ($\beta = 0.25$, $p < 0.001$) and claimed self-handicapping ($\beta = 0.36$, $p < 0.001$). Reappraisal was positively related to behavioral self-handicapping ($\beta = 0.11$, $p < 0.05$), whereas suppression was positively related to claimed self-handicapping ($\beta = 0.15$, $p < 0.05$).

Table 3 represents the bootstrapping results indicating two indirect paths were significant. That is, the indirect paths from self-oriented perfectionism to behavioral

self-handicapping via reappraisal ($\beta = 0.021$, $p < 0.05$) and from socially prescribed perfectionism to claimed self-handicapping via suppression was significant ($\beta = 0.021$, $p < 0.01$)

Discussion

This study aimed to examine the relationship between multidimensional perfectionism and self-handicapping in dancers to provide information to improve their dance performance and practice. We approached self-handicapping from multiple perspectives by examining the mediating effect of emotional regulation related to perfectionism.

There were several interesting findings via our analyses. First, emotional regulation performed a mediating role in the relationship between multidimensional perfectionism and self-handicapping. Suppression, which is negative emotional regulation, played a significant role in mediating the relationship between socially prescribed perfectionism and claimed self-handicapping. In contrast, reappraisal, which is positive emotional regulation, played a significant role in mediating the relationship between self-oriented

perfectionism and behavioral self-handicapping.

Our result showing that self-oriented perfectionism affects behavioral self-handicapping through positive emotional regulation (reappraisal) is similar to previous research indicating the correlation between self-oriented perfectionism and adaptive indicators such as self-control and positive emotion (Fedewa et al., 2005). Thus, there may be a positive relationship between perfectionism and performance through self-handicapping. Moreover, these results are also in line with previous studies, which indicated that self-oriented perfectionism is positively correlated with positive mind, intention for exercise, follow-up goals, and positive emotional regulation strategies (Gaudreau & Thompson, 2010; Hewitt & Flett, 1993; Gross, 1998). By positively reappraising the situation surrounding their dance performance, dancers can overcome performance anxiety and improve their dance performance.

Negative emotional regulation (suppression) mediated the relationship between socially prescribed perfectionism and claimed self-handicapping. This result is similar to previous research that found correlations between socially prescribed perfectionism and maladaptive issues such as depression, anxiety, and procrastination (Rice et al., 1998; Saddler & Buley, 1999). This indicates that when dancers engage in claimed self-handicapping, it does not affect self-esteem through negative emotional regulation (suppression); in fact, using claimed self-handicapping, dancers can protect their self-esteem and continue to achieve optimal performance.

Multidimensional perfectionism may lead individuals to struggle for perfection because of the high standards they have set for themselves and others' expectations. Dancers can select and use multiple types of emotional regulation in this stressful situation, and the form of self-handicapping they use may vary, depending on the type of emotional regulation used. This study's major significance is that the form of self-handicapping associated with perfectionism may change, depending on how individuals interpret and regulate their emotions

Conclusions, limitations, and suggestions for further research

The present study verified among dancers a relationship between multidimensional perfectionism and self-handicapping, broken down into claimed and behavioral self-handicapping, and further verified a mediating effect of emotional regulation on this relationship. As hypothesized, the form of self-handicapping used by perfectionistic dancers to protect self-image varied with the type of perfectionism (self-oriented or socially prescribed) and the type of emotional regulation (positive reappraisal or negative suppression). We concluded that multidimensional perfectionism had a significant effect on self-handicapping such that self-oriented perfectionism affected behavioral self-handicapping, while socially prescribed perfectionism affected both claimed and behavioral self-handicapping. Second, reappraisal of emotional regulation had a partial mediating effect on the relationship between self-oriented perfectionism and behavioral self-handicapping, while suppression had a partial mediating effect on the relationship between socially prescribed perfectionism and claimed self-handicapping. Thus, dancers' perfectionism is a predictor of their specific self-handicapping strategies, and emotional regulation type further mediates this relationship. Given insufficient prior research on dancers' self-handicapping strategies, this study's findings advance our understanding of the multidimensional nature of dancers' psychological coping strategies. In addition, due to the relatively small sample of male college dancers, we could not conduct invariance analysis across genders (male vs. female). Thus, in future research, we need to examine gender differences in the relationship between perfectionism and self-handicapping.

To address this study's limitations, we suggest the following areas for follow-up research. First, self-handicapping can be regarded as a psychological variable that helps prevent self-esteem damage from the

stress of criticism, and future studies should more clearly delineate the characteristics of dancers by examining other coping strategies. Second, based on the results of this study, socially prescribed perfectionists who struggle for perfection because of the actual or perceived expectations of others may suffer greater anxiety or tension in dance performance than other dancers, suggesting value in examining the correlation between socially prescribed perfectionism and dancer anxiety in follow-up studies. Perhaps of most significant importance, this study's cross-sectional use of several instruments surveying the target constructs limited us to correlational findings, while a longitudinal research design would permit researchers to examine possible causal relationships between these variables. Finally, future research should investigate cultural differences in dance to understand the psychological state of dancers better.

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