

Investigating the mediating role of self-differentiation and self-compassion in the relationship between perfectionism and self-handicapping in adolescents

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Abstract

The present study aimed to investigate the mediating role of self-differentiation and self-compassion in the relationship between perfectionism and self-handicapping in adolescents. The research method is correlational with a structural equation modeling approach. The statistical population of the study consisted of all female students of the second high school in Zahedan (approximately 1321 adolescents). The sample size was selected using the Morgan table and was 297 adolescents were selected via convenience sampling method. To collect data, the self-differentiation questionnaires of Drake et al. (2015), self-handicapping of Jones and Rhodewalt (1982), perfectionism of Hewitt and Flett (1991), and the self-compassion questionnaire of Raes et al. (2011) were used. Descriptive statistics and inferential statistics were used with SPSS23 software and structural equations with PLS software. The results showed that there was a significant relationship between self-differentiation and self-compassion with perfectionism and self-handicapping ($p < .001$). The mediating role of self-differentiation and self-compassion was significant in the relationship between perfectionism and academic self-handicapping ($p < .001$). Perfectionism plays a significant role in increasing self-handicapping in adolescents. Also, self-differentiation and self-compassion plays a role in reducing self-handicapping in adolescents ($p < .001$).

Keywords: Self-differentiation, self-compassion, perfectionism, self-handicapping, adolescents.

Introduction

Perfectionism is generally considered a desirable quality in the academic field, as it is often associated with higher performance, which is linked to individual and social success. Perfectionism as a personality trait is associated with motivational, cognitive, emotional, and behavioral aspects that predict good academic performance. Accuracy, perseverance, and the need to demonstrate excellence are characteristics of perfectionists that direct their behavior towards better performance and higher academic goals (Fernández-García et al., 2023). High levels of perfectionism in students can compromise their academic performance and psychological well-being. The research emphasized that at a subclinical level, individuals who are more perfectionistic are less satisfied with their performance, experience higher levels of stress, are prone to persistent worry and fear of failure, and engage in self-defeating behaviors. Self-handicapping behavior is also associated with lower achievement, poor adjustment, and poor academic achievement (Kazemi et al., 2015; Wakelin et al., 2022). During adolescence, academic competition pushes the individual towards standards that may exceed his or her ability level, as a result, the individual does everything to have an excuse for himself or herself in case of failure and uses behaviors that aim to create obstacles to completing a difficult task and predict failure. Self-handicapping is the term used to describe these conditions (Robinson et al., 2023). According to Török et al. (2022), self-handicapping occurs when an individual's self-concept is threatened and the individual is not highly confident about his or her abilities. The findings of Rasouli et al. (2022) showed that there is a relationship between self-handicapping and perfectionism. Ghaffarzadeh et al. (2022) also observed that there is a relationship between academic self-handicapping and metacognitive beliefs and perfectionism. Nik Andam Kermanshahi et al. (2021) found that negative perfectionism and difficulty in emotional regulation have an effect on predicting self-handicapping and academic burnout in students.

According to research evidence, perfectionistic concerns significantly reduce self-compassion. On the other hand, self-compassion is also a factor that has a positive effect on psychological well-being and perfectionistic behaviors and functions (Daniilidou, 2023). Self-compassion is defined as a kind, sincere, and compassionate attitude towards oneself. It involves a positive view of oneself and recognition of personal shortcomings. With increased self-compassion, psychological distress, self-handicapping, and dysfunctional perfectionism are also reduced (Kawamoto et al., 2023). Research has shown that there is a relationship between self-compassion and students' self-handicapping (Lotfalian and Ahmadi, 2022; Lyon and Wright, 2024; Wakelin et al., 2021; Tobin and Dunkley, 2020; Kawamoto et al., 2023). In a study, Daniilidou (2023) showed that perfectionists and non-perfectionists reported higher levels of positive components of self-compassion and lower levels of its negative

components compared to maladaptive perfectionists. Pereira et al. (2022) found that self-compassion has an impact on perfectionism and self-handicapping. Also, the results of Ali's (2024) findings showed that there is an inverse and significant relationship between self-differentiation and perfectionistic concerns. On the other hand, people who are self-differentiated can grow, collaborate with others, and have deep relationships while maintaining their peace (Tobin & Dunkley, 2020).

Self-differentiation is focused on Bowen's theory and refers to the capacity of an individual to self-regulate in two dimensions, intrapersonal and interpersonal, which include emotional reactivity, ego status, emotional detachment, and fusion with others. When an individual consciously begins to work on the level of self-differentiation, they quickly begin to increase self-confidence, a sense of coherence within themselves, pride in how they deal with difficult situations, assertiveness, and many positive elements of personal growth. These feelings are self-perpetuating. According to research, self-differentiation refers to the ability of an individual to differentiate between thought and emotional processes (Hosseini & Khajavian, 2024). People who are not very different from their members cannot differentiate themselves from others and are easily confused by the feelings that their family and friends show about them, and those who have a good level of differentiation manage themselves and recognize their feelings and thoughts. However, people with undifferentiated attitudes are emotionally dependent on others and have difficulty thinking, feeling, and acting (Minichiello et al., 2024). Finklestein et al. (2020) showed that there is a relationship between self-differentiation and self-handicapping and anxiety in adolescents. Moon and Kim (2021) observed that there is a relationship between self-differentiation and self-handicapping in students. According to the collected research, it seems that there is a need for study and research regarding the mediating role of self-differentiation and self-compassion in the relationship between perfectionism and self-handicapping in adolescents. Addressing perfectionism and self-handicapping is important because it reinforces many destructive and ineffective behaviors in learners of the educational system and causes them to engage in behaviors that indicate denial of the problem at hand instead of using constructive and effective solutions to solve educational problems. This behavior occurs more often in situations where the individual is afraid of being evaluated and causes the individual to distance himself more and more from the reality in front of him. Therefore, the main question of the research is whether self-differentiation and self-compassion play a role in the relationship between perfectionism and self-handicapping?

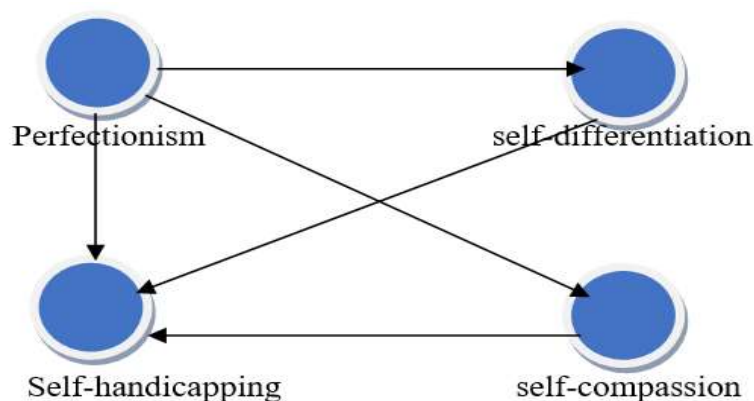


Figure 1. Research conceptual framework

Method

Sample and sampling method

The research method is correlational with a structural equation modeling approach. The statistical population of the study was all female high school students in Zahedan, 1321 adolescents. The sample size was determined using the Morgan table and 297 adolescents were selected as convenience method. In this study, four questionnaires were used to collect data: Drake's self-differentiation (2015), Jones and Rhodewalt's self-handicapping (1982), and Hewitt and Flett's perfectionism (1991), and the self-compassion questionnaire by Raes et al. (2011).

Self-Handicapping Questionnaire

Jones and Rhodewalt Self-Handicapping Scale (1982) contains 25-item that measures individuals' tendency to self-handicapping on a six-point Likert scale, with responses ranging from strongly disagree (score 1) to strongly agree (score 6). The total score of the questionnaire indicates the level of self-handicapping, with a high score indicating a high level of self-handicapping and a low score indicating a low level of self-handicapping. The maximum score on this scale is 150 and the minimum score is 25. This questionnaire has three dimensions, which include the excuse-making factor, the lack of effort factor, and the negative mood factor. Questions 18-16-14-12-11-2-1 measure the excuse-making subscale, 22-21-17-10-6-5-3 the lack of effort sub-scale, and questions 23-20-19-15-13-9-8-7-4 the negative mood sub-scale. The reliability of the scale was 0.86 by test-retest method, and by internal calculation method it ranges from 0.60 for the excuse-making sub-scale to 0.72 for the negative mood subscale. In determining the reliability of this scale, Jones and Rhodewalt (1982) reported Cronbach's alpha coefficient of 0.78. Also, in order to determine the validity of this scale, the test-retest coefficient was 0.74 at one month interval. In the study the high and significant correlation of the factors, subscales, and the total score of self-handicapping with self-esteem indicates the consensus validity of the self-handicapping scale. The correlation coefficient obtained from administering the self-handicapping scale with a 15-day interval showed that the factors, subscales, and total score of self-handicapping in the

two administrations had a high and significant correlation, ranging from 0.47 for the effort factor to 0.86 for the total score. The validity of the self-handicapping scale using the internal consistency method showed an alpha of 0.60 to 0.72 for the negative mood, lack of effort, and excuse-making factors, and 77% for the total score of self-handicapping, which, considering the other psychometric properties of the scale, indicates acceptable internal consistency (Molaei Moghbeli et al., 2014). In the research of Kheyrdoust and Tamini (2025) the Cronbach's alpha was 0.80.

Self-Differentiation Questionnaire:

It was developed by Drake (2015) to assess the level of self-differentiation of individuals. This scale consists of 20 questions that include four subscales. These four subscales are emotional reactivity; my position; emotional isolation and integration with others. This questionnaire is designed to measure the degree of differentiation of individuals by focusing on current and important life relationships. The questions are scored on a 6-point scale (score 1 to score 6). The minimum score of this questionnaire is 20 and the maximum score is 120. A higher score indicates greater differentiation in the individual. Drake (2015) estimated the Cronbach's alpha coefficient for the emotional reactivity subscale as 0.88, my position as 0.85, and emotional isolation as 0.79 and integration with others as 0.70 in his research. Also, confirmatory factor analysis confirmed the existence of the four subscales mentioned. In Iran, Fakhari et al. (2014) examined the psychometric properties of the questionnaire and found that Cronbach's alpha coefficient for the entire scale was 0.78, my position was 0.67, emotional reactivity was 0.78, integration with others was 0.76, and emotional isolation was 0.73. Also, the factor analysis conducted confirmed the four factors in this questionnaire (Hatami et al., 2021).

Multidimensional Perfectionism Questionnaire

This scale was developed by Hewitt and Flett (1990). It was also standardized and validated in Iran by Besharat (2003) on an Iranian sample. This scale is a 30-question test that measures self-centered perfectionism, other-centered perfectionism, and community-centered perfectionism, respectively. Ten items in each of the three subscales of the test measure perfectionism characteristics on a 5-point Likert scale from 1 to 5. The minimum and maximum scores of the subject in the three subscales of the test are 10 and 50, respectively. That is, someone who has obtained a score of 10 has the lowest level of perfectionism and someone who has obtained a score of 50 has the highest level of perfectionism in each of the three dimensions of perfectionism. The reliability of the three subscales has been obtained as 0.87, 0.85, and 0.90, respectively. In the preliminary validation of the Iranian form of this scale on a sample of 180 students, Cronbach's alpha for self-oriented perfectionism was 0.90, for other-oriented perfectionism was 0.83, and for community-oriented perfectionism was 0.78, indicating a high internal consistency of the scale. The correlation coefficients between 40 students

on two occasions with an interval of four weeks were 0.84 for self-oriented perfectionism, 0.82 for other-oriented perfectionism, and 0.80 for community-oriented perfectionism, indicating a high test-retest reliability of the Iranian form of the scale. In Besharat's (2003) study, the Cronbach's alpha coefficient obtained for the questionnaire on dimensions of perfectionism was 0.89.

Self-Compassion Questionnaire

This questionnaire was developed by Raes et al. (2011) to assess the self-compassion in individuals. The questionnaire consists of 26 items to measure three components: self-kindness (2 items) versus self-judgment (2 items), human sharing (2 items) versus isolation (2 items), and mindfulness (2 items) versus over-identification (2 items). The items are arranged on a 5-point Likert scale, from almost never = 1 to almost always = 5, with a higher score indicating a higher level of self-compassion. In the study by Raes et al. (2011), a favorable internal consistency with Cronbach's alpha of 86% was reported, and confirmatory factor analysis confirmed the existence of the three mentioned subscales. In the study by Shahbazi et al. (2015), a short form of 12 items in six subscales, each with two items, developed by Raes et al. (2011), was used to measure self-compassion. In the study by Shahbazi et al. (2015), the alpha coefficient for the total score of the scale was 0.91. Also, Cronbach's alpha coefficients for the sub-scales of self-kindness, self-judgment, shared human experiences, isolation, mindfulness, and over-identification are 0.83, 0.87, 0.91, 0.88, 0.92, and 0.77, respectively. The concurrent and convergent validity of the questionnaire has also been reported to be favorable.

Data analysis

To analyze the data, descriptive statistics and inferential statistics were used with SPSS-23 software and structural equations with smart PLS-3 software.

Results

The Table 1 estimates the Cronbach's alpha coefficient and composite reliability for each factor in the present study.

Table 1. Cronbach's alpha coefficient, composite reliability, AVE, HTMT

Variable	Alpha Cronbach's	CR	AVE	1	2	3	4	5
1. Self-handicapping	0.79	0.90	0.70	0.84				
2. Self-differentiation	0.85	0.91	0.64	0.46	0.74			
3. Self-compassion	0.89	0.93	0.78	0.83	0.47	0.89		
4. Perfectionism	0.91	0.88	0.67	0.51	0.54	0.51	0.93	-

Standard criteria were applied to evaluate how well the data fit the model. Usually, values between 0.70 and 0.95 for Cronbach's alpha and composite reliability are widely accepted. Table 1 illustrates the presentation of internal consistency reliability (CA and CR) in this research. According to the results of Table 1, all constructs achieved Cronbach's alpha values between 0.79 and 0.91. Furthermore, all constructs achieved values ranging from 0.88 to 0.93 for composite reliability. Consequently, the structure of this research demonstrates acceptable internal consistency reliability. On the other hand, average variance extracted values exceeding 0.50 are typically considered sufficient. The results of Table 1 showing that the all four indices were upper this threshold, 0.70 for self-handicapping, 0.64 for self-differentiation, 0.78 for self-compassion, 0.64 for perfectionism and the variables exhibited acceptable AVEs, demonstrating sufficient convergent validity. Generally, values below .85 are considered acceptable for the HTMT criterion. The results of Table 1 showing that almost constructs achieved values ranging from 0.47 to 0.93 for discriminant validity based on the HTMT criterion.

Table 2. Pathway coefficients of self-differentiation and self-compassion as mediator in perfectionism and self-handicapping

Pathway	Beta	t	Sig.
Perfectionism -> self-handicapping	-0.943	8.146	.001
Perfectionism -> Self-differentiation	-0.521	14.175	.001
Self-compassion -> self-handicapping	-0.554	6.284	.001
Perfectionism -> Self-compassion	-0.389	32.325	.001
Perfectionism -> self-differentiation -> self-handicapping	0.353	5.00	.001
Perfectionism -> self-compassion -> self-handicapping	0.215	8.50	.001

The results indicated that perfectionism has a considerable significant negative association with self-handicapping ($Beta = -0.943$, $t = 4.146$, $p < .001$), self-differentiation ($Beta = -0.521$, $t = 14.175$, $p < .001$), and self-compassion ($Beta = -0.389$, $t = 32.325$, $p < .001$). Self-compassion has a significant negative association with self-handicapping ($Beta = -0.554$, $t = 6.284$, $p < .001$). The indirect link of perfectionism via the self-differentiation on self-handicapping ($Beta = 0.353$, $t = 5.00$, $p < .001$) was significant. Eventually, the indirect link of perfectionism via the self-compassion on self-handicapping ($Beta = 0.215$, $t = 8.50$, $p < .001$) was significant. According to the results of structural equation modeling (SEM) perfectionism significantly negatively associated with self-handicapping, self-differentiation, and self-compassion, self-compassion had also a significant negative direct association with self-handicapping. The findings further indicated that self-differentiation and self-handicapping played a significant mediating

role in the relationship between perfectionism and self-handicapping in adolescents. The indirect association of perfectionism via the self-differentiation on self-handicapping represent suppressor relationships.

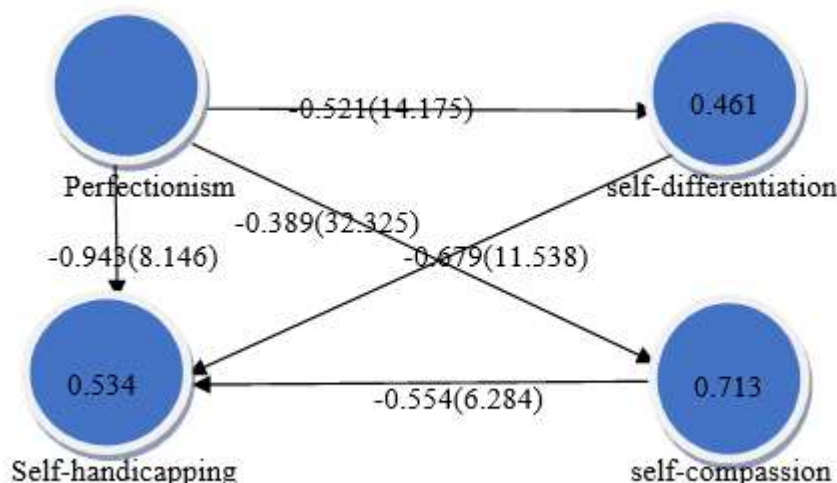


Figure 2. Pathway coefficient value of the structural equation model

Discussion and Conclusion

The aim of the present study was to investigate the mediating role of self-differentiation and self-compassion in the relationship between perfectionism and self-handicapping in adolescents. The results showed that the mediating variable relationship of self-differentiation and self-compassion in the relationship between perfectionism and academic self-handicapping is significant. These results are consistent with the previous findings (Rasouli et al., 2022; Lotfalian and Ahmadi, 2022; Ghaffarzadeh et al., 2022; Nik Andam Kermanshahi et al., 2021; Pereira et al., 2022; Finklestein et al., 2020; Lyon and Wright, 2024; Wakelin et al., 2022; Tobin and Dunkley, 2021; Moon and Kim, 2021; Lyon and Wright, 2024). It seems that self-differentiation is one of the basic human needs that has an impact on strengthening students' morale and positive self-image. Self-differentiation can increase and decrease. Highly self-differentiated students enjoy doing several activities in their daily lives. They try to find solutions to their problems with positive thoughts and enthusiasm, and they endure all challenges, considering these challenges as positive and ready to change. They do not suffer from any inferiority complex and do not have a tendency to postpone their academic tasks. Also, self-compassion is one of the aspects of emotional intelligence that includes the ability to register emotions and use information to guide thoughts and actions. People who are self-compassionate experience greater mental health than people who have less self-compassion; because the experience of pain and failure is reinforced through self-condemnation and feelings of isolation and magnification of thoughts and feelings.

The results indicated that perfectionism plays a significant role in increasing self-handicapping in adolescents. These results are consistent with the previous findings

(Rasouli et al., 2022; Ghaffarzadeh et al., 2022; Nik Andam Kermanshahi et al., 2021; Kawamoto et al., 2023; Pereira et al., 2022; Tobin and Dunkley, 2021; Lyon and Wright, 2024). Therefore, it is inferred that people with high levels of perfectionism are characterized by striving for perfection. Setting excessively high standards for performance along with a tendency to overly critically evaluate their behavior may have both positive and negative consequences and contribute to increasing self-handicapping. The results also indicate that self-differentiation plays a role in reducing self-handicapping in adolescents. These results are consistent with the previous findings (Finklestein et al., 2020; Moon and Kim, 2021). Therefore, in explaining the reasons for academic self-handicapping and differentiation, it can be said that adolescents face various sources of academic stress during their education, while they may not have sufficient cognitive and learning strategies to deal with them, which increases the likelihood of avoidance behaviors in the individual. Therefore, when a person perceives a situation as uncontrollable and challenging, he gradually loses the courage to face it and withdraws from situations and activities related to it, and there is not only the possibility of successive failures but also the possibility of harming his mental health and well-being, including hopelessness and helplessness. This hopelessness itself can cause the person to intensify withdrawal and perform various avoidance behaviors and reactions, such as self-handicapping and postponing activities. Therefore, teaching hope to the person and setting achievable and possible goals for him, along with teaching him how to define paths to these goals, can, in addition to reviving hope in the person, cause him to gradually achieve success and, while raising his level of self-confidence, be effective in reducing his self-handicapping. The results showed that self-compassion plays a significant role in reducing self-handicapping in adolescents. These results are consistent with the previous findings (Lotfalian and Ahmadi, 2022; Pereira et al., 2022; Kawamoto et al., 2023; Lyon and Wright, 2024; Wakelin et al., 2022). Therefore, it can be said that having a sense of self-compassion indicates that the individual is trying to prevent the experience of pain. This leads to the emergence of active coping styles to promote and maintain mental health. Self-compassionate individuals experience less pain and impairment than others and have a supportive view of themselves, which reduces feelings of depression and anxiety, increases their satisfaction with life, and has an effect on reducing self-handicapping. The results showed that perfectionism plays a significant role in reducing self-compassion in adolescents. These results are consistent with the previous findings (Nik Andam Kermanshahi et al., 2021; Daniilidou, 2023; Kawamoto et al., 2023; Wakelin et al., 2022; Tobin and Dunkley, 2021; Lyon and Wright, 2024). Therefore, it can be said that perfectionism, as a personality and motivational trait, is mostly used to describe people who have a lot of worry and anxiety about themselves and their work, are interested in gaining approval from others, have difficulty accepting themselves unconditionally, and sometimes this extends to the inability to accept others. Perfectionism is a personality tendency that is characterized by very high

standards of performance, along with critical evaluation of oneself and others, and fear of social evaluation, and reduces self-compassion in adolescents. The results showed that perfectionism plays a significant role in reducing self-differentiation in adolescents. These results are consistent with the previous findings (Nik Andam Kermanshahi et al., 2021; Pereira et al., 2022). Therefore, it can be said that perfectionism is related to stress because they are under pressure, hope for success and fear of failure. Perfectionism is usually associated with making mistakes, a student who always thinks that things are perfect and flawless will not be satisfied with anything, perfectionist individuals experience failure when they encounter shortcomings in their performance, and as a result, their self-differentiation decreases.

Limitations:

- Considering that the present study was conducted on female students of the second high school in Zahedan, the generalizability of the findings should be done with caution.
- The sampling method of this study was convenience sampling which restricts generalizability and may introduce bias.

Suggestion:

- Future studies should consider using the random sampling method across several schools to enhance the generalizability of their findings.
- It is suggested that school psychologists and counselors, while participating in special empowerment courses with the aim of mastering the teaching of self-differentiation and self-compassion, take advantage of it to minimize the psychological and educational problems and challenges of students and also reduce self-handicapping.
- It is also suggested that school psychologists conduct special in-service courses for counselors with the aim of empowering them in using self-differentiation and self-compassion methods. Strengthening self-compassion can reduce maladaptive perfectionistic and self-handicapping efforts to achieve high standards and be superior to others. With these interventions, acceptance of shortcomings and mistakes is facilitated, and students will achieve higher mental health without blaming and criticizing themselves.

Ethical Considerations:

"All procedures performed in this study involving human participants were conducted ethically according to the ethical standards of the Institutional and/or National Research Committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards. Informed consent was obtained from all individual participants included in the study."

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