



Spring and Summer 2022, Volume 3, Issue 1, 38-43

Relationship of Locus of Control and Compassion with Mindfulness in Students

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ARTICLE INFORMATION

Article type

Original research

Pages: 38-43

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Email: aliarab@edpsy.usb.ac.ir

Article history:

Received: 2022/02/18

Revised: 2022/06/14

Accepted: 2022/07/14

Published online: 2022/09/14

Keywords:

Locus of control, compassion, mindfulness, students

ABSTRACT

Background and Aim: Mindfulness refers to continuous and non-evaluative awareness of psychological processes and plays an important role in psychological health. Therefore, the present research was conducted with the aim of determining the relationship of locus of control and compassion with mindfulness in students. **Methods:** This was descriptive from type of correlation. The research population was the students of Sistan and Baluchistan University in the 2021-22 academic years. The sample size was considered to be 180 people, which this number were selected by randomly multi-stage cluster sampling method. The research tools were the locus of control scale (Rotter, 1966), compassion scale (Neff, 2016) and mindfulness questionnaires (Brown and Ryan, 2003). For data analysis were used from Pearson correlation coefficients and multiple regression with enter model methods in SPSS software version 22. **Results:** The results showed that the locus of control and compassion had a positive and significant relationship with mindfulness in students, and these two variables could predict 31% of changes of mindfulness in students, which in this prediction the contribution of compassion was higher than the locus of control ($P < 0.01$). **Conclusion:** The results indicated a more important contribution of compassion in compared to locus of control in predicting mindfulness in students. Therefore, in order to increase mindfulness, first should improve their compassion through educational workshops.



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How to Cite This Article: Kouhkan, A., Arab, A. (2022). Relationship of Locus of Control and Compassion with Mindfulness in Students. *Jayps*, 3(1): 38-43

Introduction

Mindfulness, as one of the health-related concepts, has received the attention of psychologists and health professionals in recent years (O'Connor, O'Reilly, Murphy, Connaughton, Hoctor, & McHugh, 2021). This construct refers to the purposeful, continuous, and non-judgmental (non-evaluative) awareness or attention to happening events and experiences, which plays an important and influential role in health (Liu, Wei, Li, Wang, & Geng, 2022). Mindfulness helps people to become aware of their negative feelings and emotions, identify thoughts related to them and implement strategies to deal with them appropriately. Therefore, they face less stress and anxiety and better health and quality of life (Huberty, Green, Cacciatore, Buman, & Leiferman, 2018). Mindful people perceive internal and external realities freely and without distorting perception and have the appropriate ability to face or deal with a wide range of pleasant or unpleasant emotions and experiences (Zimmer-Gembeck, Clear, & Campbell, 2021). One of the factors related to mindfulness is the source of control (Niyazi & Adil, 2017), which refers to the level of a person's ability to control and manage his life or the person's overall expectation of the results of an event or situation (Xia & Ma, 2020). Therefore, the locus of control represents the person's beliefs and evaluations of his successes and failures based on his strengths and weaknesses (Ozdemir & Bektas, 2021). The locus of control is a construct derived from the attribution theory with two types of internal and external locus of control, and people with an internal locus of control generally attribute their successes and failures to themselves, such as ability and effort, and individuals with an external locus of control generally attribute their successes and failures to external factors. Like chance and others, they forget (Asante & Affum-Osei, 2019). The perception of control plays an important role in how to behave in different situations, including facing and dealing with challenging situations and events such as diseases and psychological

adaptation to them (Milanik, Debska, Kroll, Wierzbicki and Przebilowski, 2022). As a result, people with an internal locus of control believe that the reason for pleasant and unpleasant life events is their effort and lack of effort or their ability and lack of ability (Yang & Weber, 2019).

Another factor related to mindfulness is compassion (Viscovitch & DiGiorgi-Walker, 2019). Compassion means being able to experience and be affected by the suffering of others in such a way that one evaluates one's problems and sufferings as more bearable (Linardon, Susanto, Tepper, & Fuller-Tyszkiewicz, 2020). Compassion refers to loving oneself and others, being kind to oneself and others, and caring for oneself and others, and it does not mean preferring oneself to others (Cusack, Petrie, & Moore, 2022). The construct of compassion has arisen for facing personal pain, not denying pain and accepting it, and the desire to reduce pain and improve health through self-kindness (Pullmer, Chung, Samson, Balanji, & Zaitsoff, 2019). The three-component structural compassion includes self-kindness versus self-judgment, human commonality versus isolation, and vigilance versus extreme identification. All human beings have defects, mistakes, and unhealthy behaviors, and the third component refers to a balanced and clear awareness of present experiences and the absence of frequent involvement of the mind with painful experiences (Neff, 2016). Compared to people with low compassion, people with high compassion have higher psychological health and life satisfaction and a better quality of life and face less stress, worry, and anxiety. Because they believe that all human beings face pain and difficulty and experience failure, but pain and suffering will not be permanent and stable (Roca, Vazquez, Diez, Brito-Pons, & McNally, 2021). Regarding the importance and necessity of the current research, students face many challenges due to being away from their families and the need to adapt to the new environment and situation (university), for which they need to be mindful. However, past

studies have investigated the relationship of many variables with mindfulness, but they paid less attention to the role of locus of control and compassion. Researchers did not find any research on the relationship between locus of control and compassion with students' mindfulness. Another important point is that the results of the present study can help university specialists and planners provide solutions to improve and promote mindfulness. Therefore, the present research was conducted to determine the relationship between the source of control and compassion with mindfulness in students.

Method

The current study was a descriptive correlational study. The research community was the students of Sistan and Baluchistan University in the academic year 1400-1401. The sample size was considered 180 people, which were selected by the multi-stage cluster random sampling method. In this sampling method, first from among the different faculties of three faculties, then from each faculty, two majors and one class from each major were randomly selected, and all the students of the selected classes were selected as a sample if they met the criteria for entering the study. The criteria for entering the study include consent to participate in the research, no addiction and use of psychiatric drugs such as anti-anxiety and anti-depressants, no covid-19 infection in the last three months, no stressful events such as divorce and death of relatives in the last three months, and no receipt of psychological services in the last three months. Also, the exclusion criteria included refusing to complete the questionnaires and not responding to more than ten percent of the questionnaire items.

Tools

1. Locus of control scale: This scale was designed by Rutter (1966) with 23 items. To answer each item, a 5-point Likert scale from completely false (score 1) to always true (score 5) is used, and the score of the tool is calculated with the set of scores of the items. Therefore, the minimum score is 25, the maximum score is 125, and a higher score indicates a more appropriate

control source. Rutter (1966) reported the validity of the items through the correlation of each item with the total score of the confirmation test and its reliability with the method of 0.83 retest coefficient. In Iran, Khanzadeh, Aminimanesh, Hadian, and Ali Asgari (2018) reported the reliability of the locus of control scale using Cronbach's alpha coefficient of 0.91. The present study calculated the reliability value using Cronbach's alpha coefficient of 0.86.

2. Compassion Scale: This scale was designed by Neff (2016) with 26 items. To answer each item, a 5-point Likert scale from almost never (score 1) to almost always (score 5) is used, and the score of the tool is calculated with the set of scores of the items. Therefore, the minimum score is 26 and the maximum score is 130; a higher score indicates a higher compassion. Neff (2016) confirmed the construct validity of the questionnaire with exploratory factor analysis and reported its reliability with Cronbach's alpha coefficient of 0.90 and a two-week retest coefficient of 0.91. In Iran, Mohammad Ali, Manavipour, and Sadaghati Fard (2019) reported the reliability of the compassion scale with Cronbach's alpha coefficient of 0.77 and the test-retest coefficient of 0.75. The present study calculated the reliability value using Cronbach's alpha coefficient of 0.89.

3. Mindfulness Questionnaire: This questionnaire was designed by Brown and Ryan (2003) with 15 items. To answer each item, a 6-point Likert scale from almost never (score 1) to almost always (score 6) is used, and the score of the tool is calculated with the set of scores of the items. Therefore, the minimum score is 15 and the maximum score is 90, and a higher score indicates higher mindfulness. Brown and Ryan (2003) confirmed the divergent validity of the mindfulness questionnaire with the anxiety and depression list and reported its reliability using Cronbach's alpha coefficient method of 0.87. In Iran, Rahimi et al. (2018) reported the reliability of the mindfulness questionnaire using Cronbach's alpha coefficient of 0.76. The present study calculated the reliability value using Cronbach's alpha coefficient of 0.82.

Results

Due to the incompleteness of the seven students' research tools, the analyses were done for 173 people, whose age average and standard deviation were 23.76 ± 2.68 years. The frequency and frequency results of demographic information, including gender, educational level, and age of students, were presented in Table 1. According to the results, most of the samples were female (56.07%), with bachelor's degrees (75.72%), and aged 19-21 years (67.63%). According to the results of Table 2, the source of control ($r=0.32$) and compassion ($r=0.39$) had a positive and significant relationship with mindfulness in students ($P<0.01$). Since the skewness and elongation values of the control source, compassion, and mindfulness variables were in the range of +1 to -1; therefore, the assumption of normality was not rejected. Also, the variance inflation factor's value was 1.24 to 2.38, which was smaller than 10, indicating the rejection of the multiple collinearity assumption. In addition, the Durbin-Watson value was equal to 2.25, which was in the range of 1.5 to 2.5, indicating the rejection of the correlation assumption of the residuals. As a result, there were conditions for using regression. The results of multiple regression with the simultaneous model for predicting mindfulness based on locus of control and compassion in students were presented in Table 3. According to the results of Table 3, variables of the source of control and compassion were able to predict 31% of changes in mindfulness in students, which according to the number of betas in this prediction, the contribution of compassion was greater than that of the source of control ($P<0.001$).

Conclusion

Considering the role and importance of mindfulness in improving other psychological characteristics including health and adaptability, the present research was conducted to determine the relationship between the source of control and compassion and mindfulness in students. The results of the present study showed that the source of control had a positive and significant relationship with mindfulness in students. In

other words, by improving the source of control, the amount of mindfulness in students increases, and by decreasing the source of control, the amount of mindfulness in them decreases.

Other results of the present study showed that compassion had a positive and significant relationship with mindfulness in students. In other words, with the improvement of compassion, the level of mindfulness in students increases, and with the decrease of compassion, the level of mindfulness in them decreases. In the explanation of these results based on the research of Safari, Rezakhani, and Dukaneifard (2019), it can be said that compassion is a healthy form of self-acceptance that expresses the degree of acceptance of the undesirable aspects of oneself and one's life. This structure makes a person behave with kindness and care instead of responding to unpleasant events with anger and self-blame and consider unpleasant and stressful events and experiences as part of the common experiences of all humans. Therefore, compassion is an important human force that includes the qualities of kindness, fair judgment, and persistent feelings, as well as helping people find hope and meaning in life when faced with life's problems and challenges. Also, the structure of compassion simultaneously requires that people do not avoid their painful feelings and do not suppress them but accept them and act consciously against them. As a result, compassion makes a person see his experiences from the perspective of the common experiences of all human beings and realize that suffering, failure, and loss are the necessity of every human being and all individual's experiences. In addition, one learns not to judge themselves or others, to have a fair judgment, and treat oneself kindly and mindfully. According to the above content, increasing compassion can increase mindfulness in students.

Other results of the present study showed that the source of control and compassion effectively predicted mindfulness in students. In other words, the source of control and compassion variables were able to explain a significant part

of the variance or changes in mindfulness in students. Although no research was found on the role of locus of control and compassion in predicting mindfulness, in explaining these results, it can be said that locus of control and compassion are associated with many positive psychological indicators such as life expectancy, happiness, self-efficacy, life satisfaction, self-esteem, etc. They can directly predict mindfulness, have a positive and significant correlation and have a negative and significant correlation with many negative psychological indicators such as worry, lack of self-confidence, anxiety, depression, etc., which can inversely predict mindfulness. Since mindfulness is also one of the positive psychological indicators, it is logical that variables of locus of control and compassion can play a significant role in predicting students' mindfulness. People are kind to themselves when facing the mentioned events and use coping strategies more effectively, they have higher life satisfaction, mental health, and quality of life, and when they face stressful events, they overcome them alone or with the help of others. All these factors cause the variables of the source of control and compassion to play an effective role in explaining students' mindfulness.

These results can have many practical implications for academic specialists and planners, and with the help of the results of this research and other studies, they can design and implement appropriate programs to improve students' mindfulness. Therefore, they can take a practical step towards increasing students' mindfulness by using educational workshops to improve the source of control and compassion.

Conflict of Interest

The authors of this article have no conflict of interest in conducting and writing it.

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