



Research paper

The Mediating Role of Time Attitude and Time Metaphorical Perception in the Relationship between Mindfulness and Procrastination

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Abstract

This present study investigated the mediating role of time attitude and time metaphorical perception in the relationship between mindfulness and procrastination. The method was descriptive-correlation. The population included all the students of Islamic the Azad University- Karaj branch in 2023. In order to carry out this study, 300 students were selected through available sampling. Participants completed the Procrastination, Mindfulness, Time Metaphorical Perception, and Time Attitude scales. Data were analyzed using the Pearson correlation and the structural equation modeling. Findings revealed that procrastination had a negative relationship with mindfulness. The effect of a positive time attitude and time metaphorical perception on mindfulness was positive and direct and vice versa. Furthermore, time attitude and time metaphorical perception mediate the relationship between procrastination and students' mindfulness. Therefore, behavioral sciences researchers should pay attention to factors related to time from different dimensions in order to study students' procrastination.

Keywords: Mindfulness, procrastination, time attitude, time metaphorical perception.

Introduction

Procrastination is a delay in important personal tasks, which often leads to psychological distress and threatens mental health (Johansson, et al., 2023). According to Kabat-Zinn's (2003) perspective, mindfulness is a flow without judgment and without commenting on what is happening; It means experiencing pure reality without explanation. The main component of mindfulness is paying attention to the present from different perspectives, and focusing on the present plays a prominent role in the process of mindfulness. Decreased mindfulness, especially neglecting the present, aggravates procrastination. Focusing on the present moment plays a prominent role in mindfulness (Lima-Araujo, et al., 2022). According to Zimbardo and Boyd (1999), time attitude is a dimension of perspective related to time, which refers to people's emotions and their emotional evaluation of the past, present, and future. Lakoff (1993) believes time is metaphorical and has two semantic domains; the source domain is based on physical characteristics and can be used to conceptualize the target domain or understanding of time. Therefore, by understanding the concept of time in students at different levels of education, their procrastination rate undergoes changes and differences and affects their level of mindfulness. By reviewing the research literature and considering the necessity of this topic

for students, this study aimed to examine the fit of the mindfulness model based on procrastination with the mediating role of time attitude and time metaphorical perception in university students. The hypotheses of this study were:

- Procrastination is correlated with mindfulness.
- Time attitude and time metaphorical perception affect mindfulness.
- Time attitude and time metaphorical perception play a mediating role in the relationship between mindfulness and procrastination.

Method

The method of this study was structural equation method. The population included all the students of the Islamic Azad University- Karaj branch in 2023. According to the University Education Center statistics, the number of undergraduate and graduate students was 8740. According to Tarka's theory, 300 students participated in this study as available. After obtaining permission, the researcher first referred to the general education of the Islamic Azad University- Karaj branch. The questionnaires were designed on the Pors Line website, and the link of it was provided to participants by SMS and was sent by faculties. The SPSS-26 software was used for correlation analysis, and the AMOS-24 software was used to obtain the model.

Tools

Procrastination Scale: This scale has been designed by Tuckman in 1991, had 16 items, with three environmental, individual, and organizational subscales. Tuckman reported the total reliability of this scale as 0.89. This study obtained the internal reliability through Cronbach's alpha of 0.80, for total score.

Time Metaphorical Perception Questionnaire: This questionnaire has been designed by Raiisi and Moghadasin in 2020, has 30 items, with three subscales: material, place, and object. The Cronbach's alpha is 0.77 for material, 0.71 for place, 0.77 for object, and 0.89 was reported for the whole questionnaire. This study obtained the internal reliability through Cronbach's alpha of 0.81for total score.

Mindfulness Scale: This scale, with 15 items, was designed by Brown and Ryan in 2003. The internal consistency of the scale was reported based on Cronbach's alpha coefficient of 0.89. This study obtained the Cronbach's alpha of 0.86 for total scores.

Time Attitude Scale: This scale, with 34 items, has been designed by Khezari-Azer, et al. in 2017. The subscales, include positive future, negative future, hedonism, negative present, future-oriented present, negative past, acceptance, and positive past. Cronbach's alpha coefficient was obtained for all dimensions above 0.70. This study obtained the total score internal reliability through Cronbach's alpha of 0.76.

Results

Pearson correlation results showed a correlation between mindfulness with procrastination time metaphorical perception, and time attitudes and their subscales (Table 1).

Table 1. Descriptive Statistics and Correlation with Mindfulness

Variables	Subscales	Mean	SD	Mindfulness
Mindfulness	-	3.31	1.59	1
Procrastination	Environmental	2.31	1.03	-0.15*
	Personal	2.47	0.98	-0.17*
	Organizational	2.32	1.23	-0.20**
	Total	2.51	0.95	-0.48*
Time metaphorical perception	Object	2.52	1.17	0.51*
	Matter	2.33	1.09	0.46*
	Place	2.37	1.11	0.43*
	Total	2.94	1.26	0.54*
Time attitude	Negative future	2.91	1.31	-0.13*
	Hedonism	2.92	1.26	-0.18**
	Negative present	2.88	1.30	-0.20**
	Future-oriented present	2.85	1.25	0.21**
	Negative past	2.87	1.26	-0.15*
	Past acceptance	2.79	1.27	0.12*
	Positive past	2.77	1.26	0.23*
	Total	2.84	1.31	0.11*

The indices of (RMSEA, SRMR, TLI, GFI and AGFI are equal to 0.045, 0.046, 0.92, 0.91 and 0.90. In other words, as procrastination increases, the positive time attitude and the time metaphorical perception decrease and vice versa; with a negative time attitude, procrastination increases. Furthermore, the direct effect of positive time attitude and time metaphorical perception on mindfulness is positively and directly significant and the direct effect of negative time attitude on mindfulness is negatively and inversely significant (P=0.01). Table 2 indicates the appropriateness of all model fit indices.

Table 2. Fit Indices of the Model of Correlation between Procrastination and Mindfulness with the Mediating Role of Time Attitude and Time Metaphorical Perception

CFI	RMSEA	SRMR	PNFI	AGFI	GFI	TLI	NFI	X2 /df
0.91	0.045	0.046	0.56	0.90	0.91	0.92	0.92	2.81

Discussion and Conclusion

According to the findings of the present study, it can be stated that a negative time perception and attitude is related to procrastination, and a positive time perception is related to mindfulness. This is due to the fact that time and its perception in the mind causes a person to be aware of the roles, positions, and abilities in different situations. According to the metaphor theory, time metaphorical perception is a universal perception due to the formation of higher levels of neural networks in the brain which increases cognitive capacity and individual awareness. This awareness creates a positive and logical view of the phenomena around the person. As a result, with an increase in time perception and metaphorical knowledge, the components of procrastinators are reduced. By increasing the time perception, individual's

cognitive beliefs change and strengthen their awareness. As results indicated, raising mindfulness will produce a positive time attitude and a metaphorical time perception, which will be associated with reducing procrastination in university students. The most important limitation of this study was that the sample belonged to one university, and there was a need for actual interaction due to complete scales via online links. Therefore, it is suggested that future studies use the results of this study in their treatment and study approaches.

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Conflict of Interests

There is no conflict of interest for the authors.



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