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Relationship between Values and Character Strengths: The Mediating Role of Spirituality and Persistence

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The present study examined the relationship between character strengths, values, and behavior tendencies. Character strengths are positive traits that lead to virtues, while values represent higher-order goals that guide behavior. We examined two theoretical models proposed by Peterson and Seligman (2004) and Lavy and Benish-Weisman (2021). Two hundred seventy-two university students (53.4% women) were recruited and completed questionnaires measuring values, character strengths, altruism, and self-determination. Pearson correlation and path analysis were used to analyze the data. Our findings partially supported the first theoretical model, suggesting significant correlations between some character strengths and Schwartz's (1994) values. For example, the values of benevolence, hedonism, security, and self-direction were strongly correlated with kindness, appreciation of beauty, gratitude, and creativity, respectively. Stimulation was also associated with creativity and curiosity, while tradition was correlated with humility and spirituality. However, we also found significant

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correlations between most values and character strengths, undermining Peterson and Seligman's theoretical model. Additionally, we examined the mediating effects of spirituality and persistence on the relationship between higher-order values (transcendence and openness to change) and behavior tendencies (altruism and self-determination). Our findings support Lavy and Benish-Weisman's theoretical model, suggesting that character strengths significantly influence the relationship between values and behavior tendencies. These findings have important implications for educators and scholars who aim to promote autonomous, persistent behavior and spiritual experiences.

***Keywords**:* behavior tendencies, character strengths, persistence, spirituality, values

Character strengths are positive traits manifested through behaviors, thoughts, and feelings (Peterson & Seligman, 2004). They are called "values in action," as character strengths are psychological mechanisms fostering virtues in practice (Peterson & Seligman, 2004). In the theory of human values, Schwartz (2012) defined values as manifestations of desirable goals and motivators of behavior. Thus, there is a difference in the definition of "value" in positive psychology and human values theory (Schwartz, 1994b). Virtues are defined as personal characteristics and moral values accepted across cultures, but Schwartz's values are moral as they are defined in a descriptive and non-judgmental way. According to Schwartz's theory, ten values are categorized under four higher-order values: self-transcendence, openness to change, self-enhancement and conservation (Schwartz, 2012). On the other hand, Peterson and Seligman (2004) classified twenty-four character strengths under six virtues: wisdom, courage, justice, humanity, temperance, and transcendence.

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Table 1

Correspondence between Universal Values and some Character Strengths (Peterson & Seligman, 2004)

Values	Approximately corresponding character strengths
Achievement	Persistence
Benevolence	Kindness
Conformity	Citizenship; Self-regulation
Hedonism	~Appreciation of beauty and excellence
Power	Leadership
Security	Gratitude
Self-direction	~Creativity
Stimulation	Curiosity; Love of learning
Tradition	Humility; Spirituality; Prudence
Universalism	Perspective; Fairness

Peterson and Seligman (2004) proposed a theoretical model for the relationship between character strengths and values (table 1). Some universal values, such as hedonism and self-direction, have a rough correspondence among character strengths and cannot be claimed as a good match (Peterson & Seligman, 2004). To our knowledge, the proposal has not been examined in any previous study. So, we want to examine the theoretical model for the relationship between character strengths and value in the present study. Furthermore, Lavy and Benish-Weisman (2021) presented a proposal for the relationship between higher-order values and virtues (Table 2).

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Table 2

Corresponding Higher-Order Values and Virtues (Lavy & Benish-Weisman, 2021)

Schwartz's higher-order values (and the values related to them)	VIA virtues (and the strengths related to them)	
Self-transcendence (universalism, benevolence)	Transcendence (gratitude, hope, humor, spirituality, appreciation of beauty, and excellence)	Humanity (love, kindness, and social intelligence)
Conservation (security, conformity, tradition)	Temperance (forgiveness, modesty, Prudence, and self – regulation).	Justice (fairness, leadership, and teamwork/citizenship).
Openness to change (self-direction, stimulation, hedonism)	Courage (bravery, persistence, honesty, and zest).	
Self-enhancement (power, achievement)		Wisdom (creativity, Curiosity, love of learning, judgment, and perspective).

As summarized in table 2, Lavy and Benish-Weisman (2021) assumed a salient connection between the higher-order self-transcendence values and the virtue of transcendence. Self-transcendence is defined as concern for the well-being and interest of others (Schwartz, 1994b), and the virtue of transcendence is defined as the connection to something larger than ourselves and developing a sense of purpose or meaning through looking above personal needs (Peterson & Seligman, 2004). Furthermore, the virtue of humanity is assumed to be connected with self-transcendence (Lavy & Benish-Weisman, 2021), as both include the components of kindness and benevolence. The higher-order conservation values and the two

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virtues of justice and temperance are assumed to be connected as they have common components, including order, self-restriction, social harmony, and preservation of the past (Lavy & Benish-Weisman, 2021). Openness to change comprises values such as independent thoughts and actions (Schwartz, 2012), and the virtue of courage have some similarities and might have connections (Lavy & Benish-Weisman, 2021). However, some character strengths related to courage, such as bravery and zest, are assumed to be strongly connected with openness to change. Other strengths such as perseverance and honesty, seem more loosely connected with openness to change values. So, Lavy and Benish-Weisman (2021) suggested a more nuanced examination of the relationship between courage-related strengths and Schwartz's values. Finally, the virtue of wisdom is loosely connected to any higher-order value in Schwartz's theory because it has different knowledge-related strengths ranging from highly developed understanding and interpretive abilities to courageous actions to pursue it (Peterson & Seligman, 2004). From Schwartz's theory perspective, self-enhancement values cannot correspond to any virtue. Virtues have moral valence and give more attention to the good of others and society; but self-enhancement is concerned with personal success and is moral or non-judgmental. So no virtue is assumed to be connected with self enhancement.

Given the proposal mentioned above, there are multiple links between higher-order values and virtues. Furthermore, character strengths are “values in action, " meaning they mediate the relationship between values and behavioral tendencies. One previous study also suggested the links between character strengths and Schwartz's (1994) values (Crossan et al., 2013).

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However, the theoretical model for the relationship between values/virtues and behavior tendencies is complex as twenty-four character strengths (Peterson & Seligman, 2004) provide paths from four higher-order values (Schwartz, 2012) to a host of behavior tendencies. Thus, examining all possible links between values, character strengths and behaviors is difficult. However, Lavy and Benish-Weisman (2021) examined the mediating role of gratitude as a pathway from Schwartz's self-transcendence values to prosocial behavior and peer acceptance. Consistently, we conducted an initial examination for a structural equation model based on the mediating roles of two character strengths of spirituality and persistence (Figure 1). We assume that spirituality mediates between self-transcendence values and altruistic behavior tendency.

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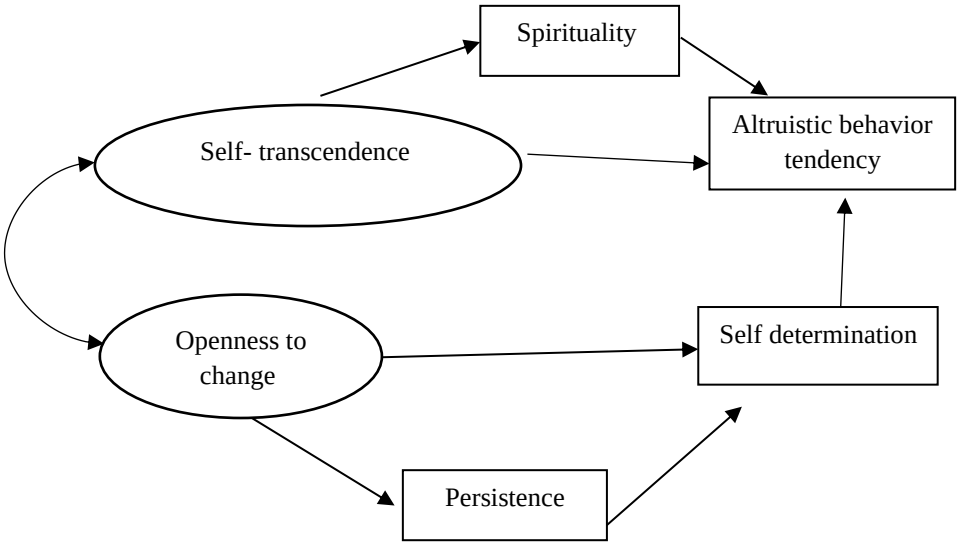

Figure 1. The research proposed model

Altruism has a far-reaching impact on human lives (Prinstein & La Greca, 2004) because it helps preserve the fabric of society. Altruistic behavior tendency is defined as helping others motivated by the concern for others' welfare and induced by internalized norms of sympathy and benevolence (Eisenberg et al., 2013). Self-transcendence values are theoretically connected to pro-social behavior and positive social outcomes (Arieli et al., 2014; Schwartz, 2010). As mentioned earlier, the virtue of transcendence and related character strengths such as spirituality correspond to the higher-order values of self-transcendence (Lavy & Benish-Weisman, 2021). So, it can be assumed that spirituality is positively associated with self-transcendence values. Spirituality is a coherent belief about the meaning of the universe and life that shapes conduct and provides peace (Peterson & Seligman, 2004). Previous studies demonstrated that spirituality is related to altruistic behaviors (García-Vázquez

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et al., 2022; Hardy & Carlo, 2005). We suggest that spirituality mediates between self-transcendence values and altruism as a pro-social behavior.

Persistence refers to the course of action despite obstacles like boredom, difficulty, and temptation to do something easier (Peterson & Seligman, 2004). It is related to the virtue of courage because it can enable individuals to exercise the will to accomplish their goals in the face of hindrances (Peterson & Seligman, 2004). Empirical research supports the associations of persistence with self-determination (Lavigne et al., 2007). Self-determination is the inherent motivation to seek challenges and extend one's capacities (Ryan & Deci, 2000). Having a conscious understanding of one's sense of self and the ability to make choices regarding one's behavior are two crucial aspects of a self-determined behavioral tendency (Sheldon et al., 1996). These components profoundly influence well-being and quality of life, as they empower individuals to exhibit competency and autonomy in their actions (Bravo-Álvarez et al., 2023). All higher-order values defined by Schwartz (1994a) have the potential to contribute to personal independence, but the values that are theoretically most closely connected with independent thoughts and feelings are openness to change values (Schwartz, 2010). Thus, we further suggest that persistence will provide a pathway from openness to change values to self-determination. Self-determination theory also explains altruism by emphasizing the satisfaction that voluntary helping can bring to the helper and the recipient (Weinstein & Ryan, 2010). This suggests that self-determination directly impacts altruism. Additionally, Schwartz's theory of values indicates that values are interconnected and form a continuum of related motivations.

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This continuum results in a circular structure, where values next to each other in the circle are strongly positively correlated, while values on opposite sides are strongly negatively correlated (Schwartz, 2012). In the circular structure, the higher-order values of openness to change and self-transcendence are positioned next to each other (Schwartz, 2012).

So, we assume two higher-order values of openness to change and self-transcendence are connected as covariates in the proposed model. In sum, there are two research hypotheses in the present study: first the association between character strengths and values based on the proposal by Peterson and Seligman (2004); second, the research model based on the proposal by Lavy and Benish-Weisman (2021) to examine the mediating roles of spirituality and persistence between higher order values and behavior tendencies.

Method

The adequate sample size of 168 was determined using power analysis in G Power 3.1. This analysis was based on correlations obtained from a previous study (Abramson et al., 2018), where the association between prosocial behavior and self-transcendence values was .25. A one-tailed alpha value of .05 was assumed to calculate the required sample size. The sample comprised 272 university students (53.4% women) in the city of Mashhad, which was above adequate sample size. Most were undergraduate (78.1%), and 19.2% were postgraduate students. The participants completed the battery of questionnaires after signing the consent form. The ethical review board of Imam Reza International University approved the study.

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Instruments

The Portrait Values Questionnaire-40 Items (PVQ-40) (Schwartz et al., 2001).

The scale consists of 40 items representing ten values: universalism, benevolence, security, conformity, tradition, self-direction, stimulation, power, achievement, and hedonism. The items depict short descriptions of 40 different individuals. Each description portrays the person's goals, aspirations, or desires, which indirectly highlight the significance of a particular value. Participants were required to rate the similarity between themselves and each person described by answering the question: "To what extent is this person like you?". Response options ranged from 1 to 6, with 1 indicating "not like me at all" and 6 indicating "very much like me". The number of descriptions for each value varies from three (stimulation, hedonism, and power) to six (universalism), representing the wide range of concepts encompassed by the values. Construct validity and internal consistency of the subscales were appropriate in previous studies (Beramendi & Zubieta, 2017; Yousefi et al., 2020). In this study, the internal consistency of the 10 subscales ranged from $\alpha = .70$ (modesty) to $\alpha = .85$ (persistence).

The Values In Action Inventory of Strengths-120 items (VIA-IS-120); (Peterson & Seligman, 2004).

VIA-Inventory of Strengths contains 120 items that measure 24 character strengths based on Peterson and Seligman's (2004) classification. Participants use a 5-point Likert-type scale (from 0 = very much like me to 4 = very much unlike me) to report the extent to which each item describes them. Persian version of this inventory was validated in previous research (Namdari, 2010).

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In this study, the internal consistency of the two subscales was α = .70 (spirituality) and α = .85 (persistence).

Prosocial Tendencies Measure-Revised (PTM-R); (Carlo & Randall, 2002).

This is a 23-item self-report measure that assesses 5 different prosocial behaviors. The prosocial behaviors are classified as compliant (example item: When people ask me to help them, I don't hesitate.), public (example item: I can help others best when people are watching me.), anonymous (example item: I tend to help needy others most when they do not know who helped them.), dire (example item: I tend to help people who hurt themselves badly.), emotional (example item: I tend to help others particularly when they are emotionally distressed.), and altruistic (example item: I think that one of the best things about helping others is that it makes me look good.). The scoring is according to 5 Likert scale from 1 (Does not describe me at all) to 5 (Describes me greatly). The altruism subscale was used in the present study (α = .85). Psychometric properties of this measure were satisfactory in previous studies (Azimpour et al., 2012; Rodrigues et al., 2017).

The Self Determination Scale (SDS); (Sheldon & Deci, 1996).

The scale was developed to measure the characteristics of grounded and self-determined individuals. The SDS is a concise scale of 10 items, divided into two subscales: self-awareness and choicefulness. Participants are asked to indicate which statement feels more true to them on a scale of 1 to 9, with 1 representing "only A feels true" and 9 representing "only B feels true". For example, one item in the self-contact subscale compares feelings

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towards one's body, while another item in the choiceness subscale compares perceived limitations in actions. The subscales can be used separately or combined to calculate an overall SDS score. In a study by Sheldon (1995), psychology students from a small private university in the northeastern United States completed the scale. The author combined the two subscales to calculate an overall SD score by summing the responses to all 10 items. The results revealed a correlation between four measures of self-determination, including the SDS, and two measures of trait creativity. Previous studies demonstrated satisfactory psychometric properties (Alborzi & Alborzi, 2006; Reeve et al., 2003). In this study, the internal consistencies for the perceived choice (α = .80), self-awareness (α = .85), and overall score (α = .81) were satisfactory.

Results

Table 3 presents the variables' means, standard deviations, and bivariate correlations between values and character strengths based on the theoretical model proposed by Peterson and Seligman (2004).

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Table 3

Means, Standard Deviations and Bivariate Correlations between Values and some Character Strengths

	Mean (SD)	Persistence	kindness	Citizenship	Self-regulation	Appreciation of beauty	Leadership	Gratitude	Creativity	Curiosity	Love of learning	Humility	Spirituality	Prudence	Perspective	Fairness
Achi	17.18(4.02)	.18**	.19**	.07	.03	.16**	.19**	.09	.23**	.18	.07	-.08	.11	.09	.23**	.08
Ben	17.50(3.72)	.09	.41**	.29**	.12*	.22**	.28**	.25**	.20**	.18**	.10	.06	.19**	.11	.16**	.34**
Conf	16.99(3.59)	.12**	.30**	.21**	.15*	.11	.17**	.28**	.05	.03	.06	.17**	.36**	.18**	.13*	.25**
Hed	13.13(3.30)	.09	.26**	.09	.01	.29**	.13*	.10	.16**	.18**	.01	.06	-.02	.04	.17**	.19**
Pow	10.15(3.15)	-.001	.01	-.04	.01	.16**	.18**	-.06	.20**	.22**	.009	-.12*	-.08	.01	.26**	-.04
Sec	23.48(4.25)	.18**	.28**	.11	.14*	.21**	.14*	.33**	.20**	.16**	.07	.14*	.32**	.24**	.16**	.17**
Self	17.43(3.54)	.28**	.25**	.16**	.14*	.25**	.23**	.22**	.38**	.30**	.17**	.10	.13*	.13*	.25**	.19**
Stim	11.37(2.16)	.29**	.28**	.12*	.09	.26**	.19**	.10	.43**	.36**	.14*	.01	-.007	-.02	.13*	.17**
Tra	15.25(3.34)	.12*	.25**	.18**	.18**	.13*	.11	.32**	.03	.05	.04	.28**	.48**	.23**	.04	.23**
Uni	26.36(5.19)	.17**	.34**	.23**	.14*	.29**	.27**	.29**	.19**	.15*	.14*	.19**	.23**	.21**	.22**	.29**
Mean (SD)		19.41 (3.33)	20.97 (2.78)	19.14 (2.70)	18.54 (3.01)	19.53 (2.58)	18.00 (2.78)	19.64 (2.90)	18.70 (3.15)	18.76 (2.82)	17.81 (3.36)	17.97 (2.78)	19.26 (3.19)	18.80 (3.20)	18.26 (2.80)	18.94 (2.69)

Note: Achi=Achievement; Ben=Benevolence; Con=Conformity; Hed=Hedonism; Pow=Power; Sec=Security; Self=Self-direction; Stim=Stimulation; Tra=Tradition; Uni=Universalism
*P<.05; **P<.01

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As shown in Table 3, consistent with the proposed model, benevolence, hedonism, security, and self-direction had the highest correlations with kindness, appreciation of beauty, gratitude, and creativity, respectively. Furthermore, stimulation had the highest correlations with two character strengths of creativity and curiosity, and tradition had the highest correlations with humility and spirituality. Inconsistent with the proposed model, the two character strengths, creativity and perspective had the highest correlations with achievement, and the character strengths of spirituality and kindness had the highest correlations with the values of conformity and universalism, respectively.

Table 4

Means, Standard Deviations and Correlations of Research Variables in SEM

	Mean	SD	Universalism	Benevolence	Spirituality	Altruism	Self-direction	Stimulation	Hedonism	Persistence	Self-determination
Universalism	26.36	5.19	1								
Benevolence	17.50	3.72	.67**	1							
Spirituality	19.26	3.19	.23**	.19**	1						
Altruism	10.15	2.50	.31**	.40**	.20**	1					
Self-direction	17.43	3.54	.60**	.50**	.13**	.25**	1				
Stimulation	11.37	3.16	.36**	.33**	-.007	.14*	.57**	1			
Hedonism	13.13	3.30	.46**	.43**	-.02	.11	.51**	.56**	1		
Persistence	19.41	3.33	.17**	.09	.28**	.18**	.28**	.29**	.09	1	
Self-determination	25.56	5.46	.30**	.29**	.22**	.44**	.44**	.29**	.19**	.36**	1

*P<.05; **P<.01.

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Table 4 demonstrates the variables' means, standard deviations, and bivariate correlations. The research model (Figure 1) was tested using structural equation modeling (SEM). The proposed model showed less than adequate fit with the data (normed X^2=4.56, IFI = .89, CFI = .89, PCFI=.89, RMSEA = .11). To have a better fitting model, post hoc model modifications were performed, and two co-variances among residual errors of the openness to change values were added as the MI suggested them. Following these adjustments, the findings indicated an adequate fit of the model to the data (normed X^2=3.89, IFI = .92, CFI = .92, PCFI=.53, RMSEA = .08). In the research model, all direct and indirect paths were significant (see details in Figure 3). Squared multiple correlation coefficients were measured to indicate the proportion of the variance explained by the predictors for each variable in question. Self-transcendence, spirituality, and self-determination explained 24% of the variance in altruism. Spirituality was predicted by self-transcendence and 5% of the variance in spirituality was accounted by this predictor. Squared multiple correlation coefficients demonstrated that openness to change and persistence explained 26% of variance in self-determination. Moreover, persistence was predicted with openness to change and this predictor accounted 7% of the variance in self-determination. To examine the indirect effects of higher order values on behavioral tendencies, the mediation analyses were performed through PROCESS macro for SPSS provided by Hayes (2013), 5,000 bootstrap estimates to generate 95% bias-corrected confidence intervals for the observed indirect mediating effects.

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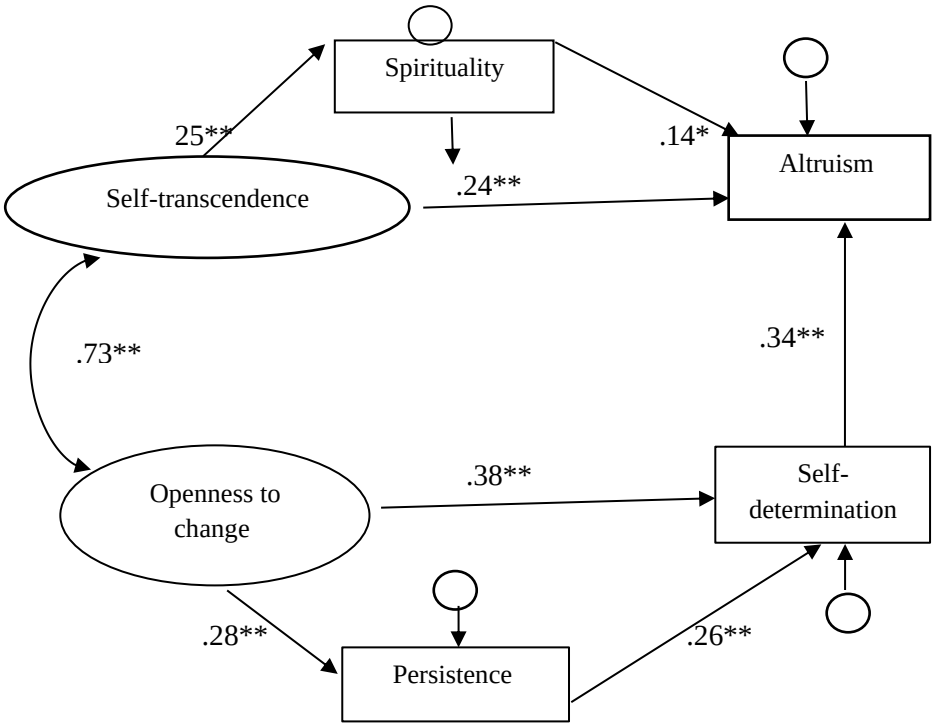

Figure 3. Standardized estimates of SEM model.

*P<.05; **P<.001. All direct and indirect effects were significant. The standardized indirect effect of self-transcendence values on altruism was .018 and the standardized indirect effect of openness to change values on self-determination was .073.

Central to the mediation hypothesis, the effect of persistence regressed on openness to change is significant (B = .106, t = 4.54, p < .001), as is spirituality on self-transcendence (B = .093, t = 4.05, p < .001). Furthermore, the effects of self-determination regressed on persistence (B = .470, t = 5.11, p < .001) and altruism regressed on spirituality is significant (B = .097, t = 2.15, p =.03). The bootstrap results with 5,000 re-samples show an un-standardized indirect effect of .05 for the

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mediation of persistence (confidence intervals: .024, .083); and .009 for the mediation of spirituality (confidence intervals: .001, .021). These results confirm the indirect effects of openness to change and self-transcendence on self-determination and altruism through the mediating variables of persistence and spirituality (Table 5).

Table 5

Ordinary Least Squares Regression Results for Mediation

Variable						
Mediation of persistence direct and total effects	B	SE	t	p	LLCI	ULCI
***a* path, openness to change → persistence**	.106	.02	4.54	.001	.060	.152
***b* path, persistence → self-determination**	.470	.09	5.11	.001	.289	.652
***c'* path, openness to change → self-determination controlling for persistence (direct effect)**	.194	.03	5.30	.001	.122	.266
***c* path, openness to change → self-determination (total effect)**	.244	.03	6.61	.001	.171	.316
Bootstrap results for Indirect Effect of openness to change (X) on self-determination (Y)						
Effect	M	SE	LLCI	ULCI		
Unstandardized	.050	.01	.024	.083		
Standardized	.076	.02	.038	.124		
Mediation of spirituality direct and total effects	B	SE	t	p	LLCI	ULCI
***a* path, self-transcendence → spirituality**	.093	.02	4.05	.001	.048	.139
***b* path, spirituality → altruism**	.097	.04	2.15	.031	.008	.186

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***c'* path, self-transcendence ⟶ altruism controlling for spirituality (direct effect)**	.107	.01	6.08	.001	.072	.142
***c* path, self-transcendence ⟶ altruism (total effect)**	.116	.01	6.75	.001	.082	.150
Bootstrap results for Indirect Effect of self-transcendence (X) on altruism (Y)						
Effect	M	SE	LLCI	ULCI		
Unstandardized	.009	.005	.001	.021		
Standardized	.029	.016	.003	.068		

Discussion

The current study was set out to examine third theoretical models. First, the proposed model about the relationship between character strengths and values (Peterson & Seligman, 2004) was examined. Considering the highest correlations, some values, including benevolence, hedonism, security, self-direction, stimulation, and tradition, were correlated with corresponding character strengths. However, the findings did not support the proposed model as values had significant correlations with many character strengths not predicted in the theoretical model (Peterson & Seligman, 2004). These findings demonstrated that the relation between character strengths and values is more extensive than the proposal.

The mediating role of character strengths between higher-order values and behavior tendencies was also examined in the present study. We hypothesized one pathway from the values of self-transcendence to altruism via spirituality, and character strength thought to present a psychological manifestation of transcendence. We also examined the mediating role of persistence between openness to change and self-determination. The findings generally supported the theoretical models,

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suggesting that spirituality may serve as a pathway from self-transcendence values to altruism, and persistence may have a mediating role in the pathway between openness to change and self-determination.

The findings are consistent with previous research (Lavy & Benish-Weisman, 2021); providing empirical evidence about the role of character strengths in linking values and behavior. Values are broad and abstract and can be operationalized through the cultivation of character strengths(Peterson & Seligman, 2004; Quinlan et al., 2012). Furthermore, character strengths development is somewhat related to individual and social context (Harzer & Ruch, 2013; Lavy, 2020). Structuring environment to encourage virtuous behaviors may enhance the use of character strengths. For example, self-transcendence may be practiced in classes (or organizations) by encouraging spiritual experiences. Consistently, one study demonstrated that scientific experience can provide a sense of meaning and spirituality of science (Preston et al., 2023). Openness to change may also be practiced by encouraging persistent behaviors. Social-contextual events promoting competence and autonomy can enhance persistent behavior tendency (Fang et al., 2022; Rottensteiner et al., 2015). A friendly relationship between students and university professors can also enhance persistent behavior. Previous research demonstrated that satisfaction of the need for relatedness enhances intrinsic motivation and persistent behavior (Ryan & Deci, 2000). Given the findings mentioned above, it can be recommended that university professors support autonomous attitudes and initiation in the classroom to enhance persistent behavior and self-determination in the students.

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University professors can also help students experience scientific spirituality.

There are some limitations in the present study. First, the cross-sectional design of the present study does not allow for examination of causal relationships. Second, the analysis was based on self-report questionnaires, further exploration of concrete behaviors and longitudinal study will be recommended for future studies. Furthermore, the findings of the present study supported the proposal presented by Lavy and Benish-Weisman (2021), but the findings are preliminary and limited to a few character strengths and values. A more thorough examination of the links between values, character strengths, and behavior tendencies is needed to ascertain the proposal's validity.

Ethics Statement

The Institutional Review Board at Imamreza International University reviewed and approved the present study. All participants signed the consent form and information sheet before inclusion in the study.

Author contribution

M.K. was responsible for data collection. A.T. developed the initial framework and research design. A.T. also wrote the manuscript on which M.K. provided useful comments and changes.

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