

Research Paper:

The Moderating Role of Integrative Self-Knowledge and Self-Control in the Relationship Between Basic Psychological Needs and Self-Compassion



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ABSTRACT

Background: The present study investigated the moderating role of integrative self-knowledge and self-control in the relationship between the basic psychological needs and self-compassion among the students of Bukan Branch, Islamic Azad University, Iran.

Objectives: The purpose of this study was the moderating role of Integrative Self-Knowledge and Self-control in relation to Basic Psychological Needs with self-compassion.

Materials and Methods: This study employed a correlational method. The statistical population consisted of all students of Islamic Azad University (N=2200) studying in the academic year of 2016-2017; of whom, 384 students (male and female) were selected by proportional stratified sampling method. The instruments used in this study included the Basic Psychological Needs Scale, Integrative Self-Knowledge Scale, Self-Compassion Scale, and Self-Control Scale. Pearson's correlation coefficient and the structural equation model were used to analyze the obtained data.

Results: The findings indicated a positive and significant relationship between the basic psychological needs, integrative self-knowledge, self-control, and self-compassion ($P \leq 0.01$). Moreover, the integrative self-knowledge and self-control models demonstrated a desirable goodness-of-fit in the association between basic psychological needs and self-compassion.

Conclusion: The results of model revealed that the basic needs exerted a greater impact on self-compassion through integrative self-knowledge path, compared to self-control path.

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1. Introduction

Self-compassion encompasses three components of mindfulness, self-kindness, and common humanity feelings. In this sense, those with higher self-compassion, when encountering failures and disappointments resulting from their own actions or individual defects and weaknesses, try to accept these failures instead of denying, exaggerating or ruminating them. They also treat themselves with care, compassion, and kindness rather than criticizing and blaming self. Moreover, they recognize that the failures and defects are common among all human beings and are not inclusive to them; they believe that humans can commit mistakes and be misled [1]. Investigating self-compassion has revealed that the high scores of Self-Compassion Scale (SCS) are associated with less anxiety and depression [2], greater happiness, optimism, and curiosity [3], less anxiety in the face of threats against oneself [4], and a reduced feeling of contempt and shame [5].

Research on the developmental stages of compassion has demonstrated that self-compassion passes gradually through the stages of overall empathy [6], self-centered empathy [7], empathy with others' feelings [8], and finally, compassion to self. Different psychological theories have addressed and discussed humanity needs and took them into consideration at different levels. Some scholars regard human needs as innate [9]. One of the approaches examining basic psychological needs is self-determination theory which specifies autonomy, competence, and relatedness (attachment) as three basic needs. Self-determination is one of the universal capacities and the basis for voluntary actions. It is mainly accomplished when an individual feels capable of deciding about his/her own behavior and setting his/ her goals [9].

Integrative self-knowledge refers to the individuals' efforts to integrate the past, present, and future experiences to promote themselves [10]. In other words, integrative self-knowledge involves paying close attention to the present personal experiences (experiential self-knowledge) and considering the past personal experiences (reflective self-knowledge) to better understand oneself [11, 12]. Gorbani (2014) defines integrative self-knowledge as the third system of mental processing that incorporates the integration of consciousness and subconsciousness. It is, therefore, related to the suppression of emotions in which a person consciously and unconsciously eliminates one's thoughts and emo-

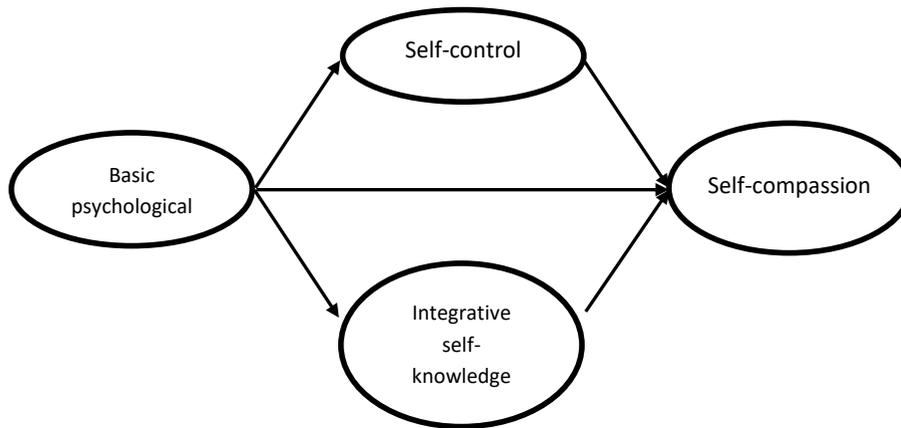
tions from the conscious sphere and impedes emotions expression [13].

Self-control is defined as the ability to modify and adapt oneself to the environment as well as to change one's internal responses and hindering attitudes in line with the standards, values, and morals for long-term goals [14]. Likewise, Baumeister (2002) deems self-control as the ability of individuals to recognize and adjust desires and emotions; it is manifested through will, self-regulation, and the ability to postpone the pleasure or reward [15].

Different studies highlighted the association between the fulfillment of basic needs and various positive outcomes, such as wellbeing, performance, and perseverance; it also prevents them from negative outcomes like diseases and treatment cessation [16]. There is a positive relationship between satisfying basic needs (autonomy, competence, and relatedness), and wellbeing and self-compassion [17]. Studies investigated the relationship between integrative self-knowledge and self-control of the "Perfect Man" [18] and the relationship between self-compassion and self-knowledge among Iranian Muslims [19]. In these studies, a high correlation was found between self-compassion, mindfulness, and integrative self-knowledge. If self-control is not accompanied by self-compassion and integrative self-knowledge, it will not be positively correlated with mental health.

Furthermore, previous studies corroborated the relationship between basic needs and self-compassion [20, 21], fundamental needs and self-control [19], self-control and integrative self-knowledge [18], compassion and integrative self-knowledge [5, 18, 22-25], and self-compassion and self-control [5, 25]. Therefore, in line with the above-mentioned studies, the present study examined the mediating roles of integrative self-knowledge and self-control in the relationship between the basic psychological needs and self-compassion within the framework of a model. Finally, relying on previous theories and research, this study aimed to test the following conceptual model and answer the following questions (Figure 1):

Does the conceptual model of self-knowledge and self-control have an acceptable fitness-of-good in the relationship between the students' basic psychological needs and self-compassion? Can integrative self-knowledge and self-control play a mediating role between basic psychological needs and self-compassion?



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Figure 1. The proposed conceptual model for expressing

2. Materials and Methods

The present study employed a correlational non-experimental method. The statistical population comprised all male and female students of Islamic Azad University of Bukan City, Iran, who were studying in the academic year of 2016-2017 (N=2200). The research sample consisted of 327 students (male & female), and due to the large population size, Morgan table was used. The proportional stratified sampling method was applied for sample selecting; a certain number of male and female students were proportionally selected (136 females & 191 males).

Study tools

Basic Psychological Needs Scale

Basic Psychological Needs Scale (BPNS), developed by La Guardia, Ryan, Couchman, and Deci (2000), includes 21 items which are scored based on a 7-point Likert-type scale (1=not true at all, 7=completely true). La Guardia et al. reported the reliability coefficient of this scale for father, mother, friends, and a romantic partner as 0.91, 0.91, 0.91, and 0.91, respectively [26]. The validity of this Scale was found to be satisfactory in the conducted studies [27]. Cronbach's α coefficient of this scale was also reported between 0.76 and 0.79 on a sample of Iranian managers and university students [28]. Cronbach's α coefficient of this study was equal to 0.78.

Integrative Self-Knowledge Scale

This 12-item scale was developed by Ghorbani et al. (2008). The items are scored based on a 5-point Likert-type scale (from mostly incorrect to mostly correct). In

their study on three Iranian and three American sample groups, Ghorbani et al. reported the Cronbach' α coefficient of this scale to be 0.82, 0.81, 0.81 for the first, second, and third Iranian samples, respectively and 0.78, 0.78, and 0.74 for the first, second, and third American samples, respectively [10]. The convergent, criterion, differential, and incremental validities were also approved in this study. Cronbach's α coefficient of this study was equal to 0.81.

Self-Compassion Scale-Short Form (SCS-SF)

SCS, designed by Raes, Pommier, Neff, and Van Gucht (2011), consists of three main elements; self-kindness versus harsh self-judgment, common humanity feelings versus the feelings of isolation, and mindfulness versus over identification [29]. The long form of this scale includes 24 items and the short form consists of 12 items which are responded on a 5-point Likert-type scale (1=almost never, 5=almost always) by respondents. Raes et al. reported the internal consistency of 0.86 for this scale [29]. The factor analysis of scale items, same as that of the long form, demonstrated 6 expressed factors and one factor for self-compassion; Cronbach's α coefficient was calculated as 0.83 for all items. Cronbach's α coefficient was 0.84 in this study.

Self-Control Scale

Self-Control Scale was developed by Tangney, Baumeister, and Luzio Boone (2004). The long form of this scale includes 36 items, and the short form which is used in the present study encompasses 13 items, scored on a 5-point Likert-type scale (1=never, 5=very much). The internal consistency of this scale was reported to be 0.83 and 0.89, respectively, in two separate studies.

Moreover, the test-retest reliability of this scale was reported as 0.87 [30]. The obtained Cronbach's α coefficient was 0.80 in this study.

Data analysis

Mean and standard deviation were used to analyze the descriptive data. Additionally, Pearson's correlation coefficient and the structural equation model were employed to analyze inferential data.

3. Results

The descriptive summary of study variables is presented in Table 1. The correlation matrix of variables is presented in Table 2. As per Table 2, there is a positive significant correlation ($P \leq 0.01$) between the basic psychological needs, integrative self-knowledge, and self-control, and self-compassion with the correlation coefficients of $r=0.65$, $r=0.61$, and $r=0.59$, respectively. Furthermore, a positive significant relationship ($P \leq 0.01$) was found between basic psychological needs, and integrative self-knowledge and self-control with correlation coefficients of $r=0.76$ and $r=0.73$, respectively.

The overall research model is presented in Figure 2. To determine the fit of the conceptual model of integrative self-knowledge and self-control in the association between basic psychological needs and self-compassion, the path analysis with the maximum exponential method was used. Table 3. The results of goodness-of-fit of the conceptual model of integrative self-knowledge and self-control in the relationship between basic psychological needs and self-compassion

According to Table 3, the related indexes, including Chi-squared test, Adjusted Goodness of Fit Index (AGFI), Normalized Goodness of Fit Index (NGFI), Relative Goodness of Fit Index (RGFI), and Root Mean Square Error of Approximation (RMSEA) were explored; each was determined based on the hypothesized model. Then, according to the paths expressed by the correction indices based on the scientific evidence, some paths were established for improving the fitness of model. The value of each index is displayed in Table 3, which indicates a satisfactory goodness-of-fit for the final model.

The obtained results of exploring the goodness-of-fit of the structural presented model display the fit of the model (Table 3). This is because the RMSEA value is

Table 1. The mean and standard deviation of variables in the sample group

Variables	Mean \pm SD
Basic psychological needs	80.90 \pm 8.34
Integrative self-knowledge	48.53 \pm 6.02
Self-compassion	48.64 \pm 6.80
Self-control	50.54 \pm 6.54
Autonomy	27.04 \pm 2.92
Competence	26.26 \pm 3.40
Relatedness	27.59 \pm 3.75

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Table 2. Matrix of Correlation among research variables

Variables	Basic Psychological Needs	Integrative Self-knowledge	Self-Control	Self-Compassion
Basic psychological needs	1	-	-	-
Integrative self-knowledge	0.76*	1	-	-
Self-knowledge	0.73*	0.47**	1	-
Self-compassion	0.65*	0.61**	0.59**	1

* $P \leq 0.05$; ** $P \leq 0.01$

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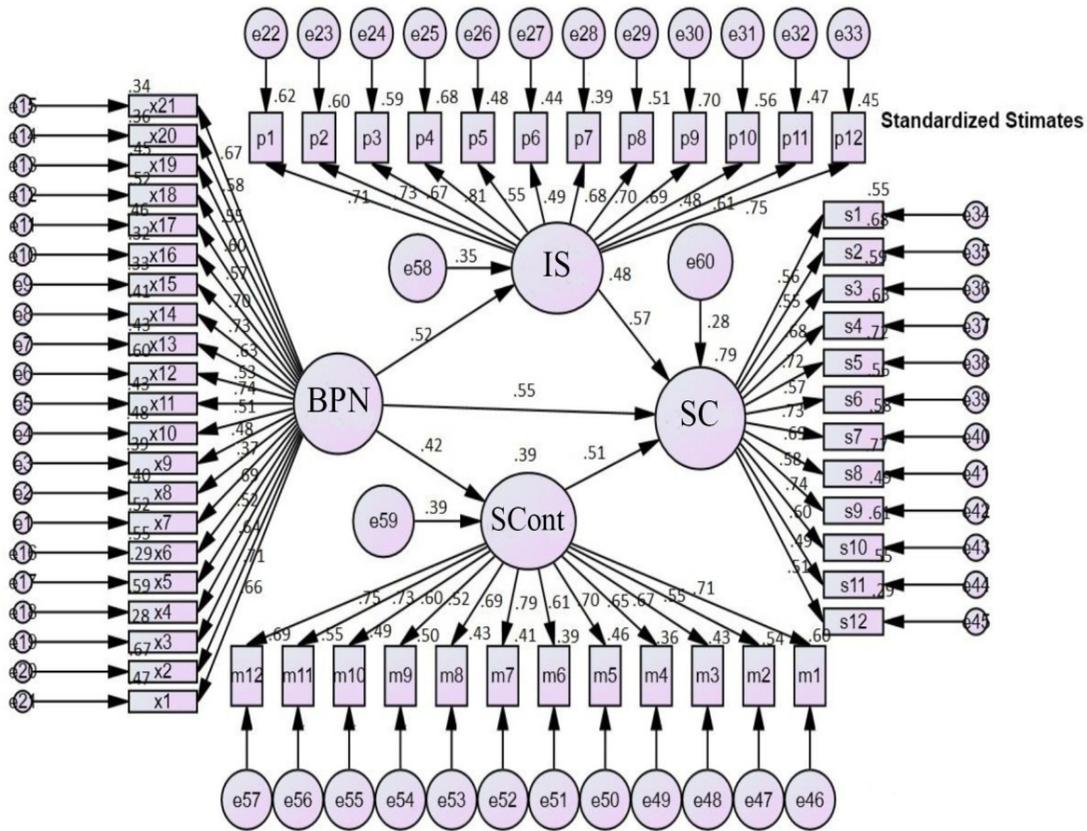


Figure 2. Ideally Fit Model of relationship between variables

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≤0.08 (RMSEA<0.08), indicating a satisfactory goodness-of-fit for the structural model; moreover, the values of CFI, NFI, RFI are all ≥0.9. According to Table 4, basic psychological needs exert an overall effect of 0.847 on the students’ self-compassion through the integrative self-knowledge path. In addition, psychological needs have a total effect of 0.765 on self-compassion through self-control path. In general, basic psychological needs justify the 0.78% variance of students’ self-compassion variations through integrative self-knowledge and self-

control. Furthermore, psychological needs exert the highest influence on self-compassion via integrative self-knowledge path.

4. Discussion

The main objective of this study was to evaluate and explain the structural equation model for the relationship between different basic psychological needs and self-compassion, and the mediating role of self-knowl-

Table 3. The results of investigating the goodness-of-fit of conceptual model

Fit Index	Acceptable Range	Value	Result
(The ratio of chi-squared on the degree of freedom) $\frac{\chi^2}{df}$	3>	1.992	Acceptable
CFI	0.9<	0.991	Acceptable
NFI	0.9<	0.971	Acceptable
RFI	0.9<	0.994	Acceptable
RMSEA	3>	0.054	Acceptable

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Table 4. The coefficients of direct, indirect, and total effects on self-compassion

Variables	Direct	Indirect	Overall
Psychological needs through integrative self-knowledge path	0.551	0.296	0.847
Psychological needs through self-control path	0.551	0.214	0.765
Integrative self-knowledge	0.570	0.001	0.570
Self-control	0.511	0.001	0.511

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edge and self-control among students. Given the final model and the fitness-of-good indices, the model has an acceptable goodness-of-fit. This result is consistent with the previous studies [6, 10, 22, 23].

The collected results indicated that the basic needs have a greater impact on self-compassion through integrative self-knowledge path. This can be justified on the basis that satisfying basic psychological needs result in higher quality behaviors and greater consistent actions by engaging in autonomous tasks. Therefore, by satisfying basic psychological needs, integrative self-knowledge can increase self-compassion. This, in turn, can also improve self-compassion through the individual's better understanding of self and one's conditions, making timely decisions, and a sense of overcoming the consequences. Finally, an individual with integrative self-knowledge openly accepts his/her present, past, and future experiences and analyzes them (through engaging the brain in actions requiring the higher and complex levels). Thereby, integrative self-knowledge can affect peoples' self-compassion in different situations [24].

In fact, students' higher self-compassion increases integrative self-knowledge. The way our peers, family, and strangers treat us and our belief about being treated in the future have important implications on our ideas about ourselves. When we expect to be rejected due to some of our characteristics, we can change several possible different answers and start selecting from 'ourselves'. To the extent that it is likely to avoid being rejected by others, teenagers and young people can potentially choose this way. Access to the correct and desirable choices reflects the creation of an ideal personal identity [31].

Regarding the effect of psychological needs on self-compassion through the self-control path, it can be stated that self-control in different emotional situa-

tions helps a person to employ better practices when facing different conditions. Self-control is also associated with better compatibility, higher self-esteem, and better communication skills; furthermore, owing to its relationship with the satisfaction of basic psychological needs, the individuals spend greater time on managing their emotional feelings.

Self-control in different situations makes a person think more about him/herself, self values, and make more decisions on applying compassion for oneself and others. Ultimately, people with higher self-control can make better use of the time and apply more appropriate methods for performing their work [30]. However, the direct impact of psychological needs on self-compassion was observed in less than two paths. In explaining these findings, Neff and Pommier's revealed a positive and significant correlation between basic psychological needs and self-compassion [21]. In other words, the coefficient correlations between autonomy, competence, and relatedness with self-compassion were 0.67, 0.61, and 0.55, respectively ($P \leq 0.01$).

The outstanding role of integrative self-knowledge is important in such situations. This hypothesis suggests that integrative self-awareness is more of a metacontextual need than a contextual one. According to this study, the need for integrative self-awareness is felt when a person is able to establish a balance between his/her own needs and society in spite of strong communication ability and self-control. Therefore, they need to consider their position from an extended viewpoint and establish integration between intellect and heart. As a result, an individual's self-control makes self-compassion. This finding is the very interaction of consciousness and control that manifests the role of self-control more than ever [20, 23, 25, 32].

5. Conclusion

The conceptual model of integrative self-knowledge and self-control has a satisfactory goodness-of-fit in the correlation between basic psychological needs and self-compassion. This indicates that if integrative self-knowledge and self-control be considered as a mediator variable in the relationship between basic psychological needs and self-compassion, the independent variable of basic psychological needs can exert a greater impact on the students' self-compassion; however, the direct effect of psychological needs on self-compassion is much less striking.

Like other humanity studies, this study encountered some limitations, including the use of self-report questionnaires and inability in experimentally investigating the causal relationships between variables. In addition, the present study was conducted among the university students; to generalize the collected results, further studies can be conducted among the high school students, teachers, office employers, etc. Future research is recommended to take the roles of self-compassion and basic psychological needs into account in designing another model; they should also consider the mediating role of empathy along with the other two variables. Paying attention to the role of studied variables in the educational and cultural programs of universities can contribute to the improvement of students' mental health.

Ethical Considerations

Compliance with ethical guidelines

All ethical principles were considered in this article. The participants were informed about the purpose of the research and its implementation stages; they were also assured about the confidentiality of their information; Moreover, They were allowed to leave the study whenever they wish, and if desired, the results of the research would be available to them.

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Authors' contributions

All authors contributed in preparing this article.

Conflict of interest

The authors declared no conflict of interest.

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