

# Prediction of preschoolers' self-control on the mothers' self-determination

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## ABSTRACT

The preschool period poses a significant period of individuals, because a child experiences a rapid rate of development regarding her/his physical, dynamic, cognitive, verbal and psychological-social skills. The present research aims to anticipate preschoolers' self-control according to their mothers' self-determination. In doing so, 150 male preschoolers were selected by convenience sampling method. The participating parents have been asked to complete the questionnaire and the basic needs satisfaction in general scale (BNSG-S), self-control rating scale to collect the data. The descriptive statistics (mean and standard deviation), correlation coefficient and multiple-regression have been applied to analyze the data. The results indicate that the self-control of preschoolers might be anticipated by their mothers' self-determination methods.

**Keywords:** Self-control, self-determination, parent-child pattern, preschool.

## Introduction

Child development is influenced by many factors, including people, places and things which are in direct relationship with the child. One of the childhood steps, which is highly important in this aspect, is the preschool period, as the child is in rapid development in terms of physical, dynamic, cognitive, verbal and psychological-social skills [1]. One of the important topics that child psychologists address is self-control. Self-control in simple expression means the child's ability to postpone the need for better things in future. Indeed, self-control refers to the reinforcing choice with an extended delay for a shorter instantaneous reinforcement [2]. Self-control involves thoughts and behaviors in which one tolerates the achievement of a more valuable, but more late, outcome. Children with high self-control acquire better achievements in different areas. Self-control is related to a set of positive and desirable achievements, including appropriate reconciliation (less mental

harm and higher self-esteem), greater academic achievement, less nutritional problems, better interpersonal communication, and the emergence of optimal emotional responses (Tangney, Bamster, and Bowen, 2004; Quoted by Mohammadi and Mousavi, 2015) [3]. In fact, our childhood self-control is somewhat predictive of our self-restraint in the future of life, and also has a major impact on the social interactions and children's success in the future; therefore, identifying factors that can predict self-control is important [2]. Among the predictors of self-control in children, parent's motivating factors have been underestimated. One of the most important motivational factors that can foresee the level of self-control in children is self-determination of mothers. Deci & Ryan self-determination theory (2000) specifically analyzes and identifies the causes and reasons of behaviors in terms of the intentions, goals, emotions and cognition that lead it to be dealt with. This theory underlies on the assumption that a living organism has a basic, intrinsic and fundamental system of psychological needs that become more complex in the course of growth and interaction of organisms with the environment; as far as they are dealt with in more complex systems of behavior [4]. These needs include the need for autonomy, sense of competence and communication. According to the theory of "basic psychological needs", which has emerged as a sub-theory in self-determination, engulfs these three requirements and are universal and exist in all cultures and ages (Rio, 2005, translated by Seyyed Mohammadi, 2010).

## Access this article online

Website: [www.japer.in](http://www.japer.in)

E-ISSN: 2249-3379

**How to cite this article:** Nazanin Safardoust, Bita Nasrollahi. Prediction of preschoolers' self-control on the mothers' self-determination. J Adv Pharm Edu Res 2019;9(S2):176-179.

**Source of Support:** Nil, Conflict of Interest: None declared.

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"Need for autonomy" is defined as self-control perception, as the source of its behaviors and the "need for choice experience" as well as being a primer to perform activities and having non-compulsory or to-be-inhibited feeling in individual's functions<sup>[5]</sup>. "Need for competence" reflects the need for the person to be effective in interacting with the social environment, gaining the opportunity to practice and express his/her abilities, the ability to access the desired outcomes, and feeling the ability to influence and dominate the environment (Deci and Ryan, 2000; quoted from Daftarchi, and Sheikh al-Islami, 2013<sup>[6]</sup>). "The need for communication" involves the need for positive relationships and sense of belonging to a group or community, as well as the feeling of acceptance by individuals who have common interests with one another (Rio, 2005, translated by Seyyed Mohammadi, 2010).

According to self-determination theory, three abovementioned needs can be met by engaging the individual in a wide range of behaviors varying from person to person and from culture to culture. No matter how these needs are met, it's important that their fulfillment is essential for healthy growth and mental well-being of all people in all cultures<sup>[7]</sup>. Chen and Jang (2010)<sup>[8]</sup> and Nef (2003) in their research revealed that satisfying the basic psychological needs (autonomy, competence and communication) in mothers creates a sense of self-confidence and self-worth in children, but if prevented or failed to be met, the child will have a fragile, negative, alien and critical self-control understanding that can affect his/her future in general<sup>[9]</sup>.

Therefore, due to the large number and importance of preschoolers as well as their high vulnerability and undeniable impact on the health of community and future generations, especially their self-control role which will lead to growing self-restraint in them, this study is necessarily designed to predict the self-control of preschoolers based on mothers' self-determination.

## Methodology

The present study was applicable in terms of purpose and descriptive and correlational in terms of collecting data.

### Population, sample and sampling method

The statistical population of this study was all male preschooler in Tehran, who studied in the academic year of 2016-17. Then, 150 male preschoolers were selected using convenience sampling method to attend the current survey. Finally, the subject mothers completed the questionnaires.

## Data Analysis Method

In this research, descriptive and statistical methods (mean, standard deviation) were employed to analyze the obtained data as well as correlation coefficient and multi-variable regression were applied in inferential statistics. The obtained data were analyzed using SPSS software.

## Research tools

Basic need satisfaction in general scale (BNSW-S): This scale was developed by Gagne (2003), adapted from the basic need satisfaction at work scale (BNSW-S). The scale consists of 21 items that include 7 items of psychological need for autonomy, 6 competence items and 8 communication points. The items are based on a 5-order Likert level from a completely false "1" to a perfectly correct "5". For instance, the phrase "I feel like I'm free to decide for my life." The degree of satisfaction with autonomy need (independence), the item "I have recently been able how to learn new and exciting skills." The need for competence and the item "People treat me very friendly generally" measures then need for communication<sup>[10]</sup>. This scale has been translated into Farsi for use in Iranian society by Daftarchi (2010)<sup>[6]</sup>. The reliability of this scale has been reported by him and colleagues (2005) using the Alpha-Cronbach method for the autonomy need of 0.86, competence need of 0.75 and communication need of 0.85. They also reported the validity of scale at the optimal level. Daftarchi (2010) also confirmed the reliability and validity of this scale and examined the reliability of the questionnaire in a rehearsal manner using 42 subjects with a one month interval<sup>[6]</sup>. Reliability coefficients for satisfying autonomy, competence and communication needs were 0.88, 0.69 and 0.78, respectively. The scale validity was also evaluated by calculating the correlation between the score of each need with the one of whole scale. The correlation coefficients for satisfying the need for autonomy, competency and communication with the score of whole scale were equal to 0.62, 0.86 and 0.59, respectively (Gagne, 2003; quoted by Besharat and RanjbarKalagari, 2013<sup>[10]</sup>).

Self-Control Rating Scale (SCRS): self-control rating scale was developed by Kendall and Wilcox in 1979 to measure the extent of children's self-control. This scale has been designed to measure the level of self-restraint behavior (the opposite of instinctive and desire-dependent behaviors) in 33 children. Self-control rating scale is used by an observer rating the children behavior. This scale is based on cognitive-behavioral self-control model. The reason for the design of this scale was the lack of scales for measuring children's self-restraint and the need for a tool that could be used to rate changes after treatment. To score, the observer should specify on a 7-point Likert scale (always = 1 to never = 7) that how much the child can control his/her behavior. Calculating the score of this scale is simply performed by summing up scores for all items. Higher scores represent less self-restraint level.

To standardize the self-control rating scale, this test was applied to a large sample of children of primary age children. Demographic information and other norms are not available. However, boys' scores are far higher than girls, and those who score between 160 and 165 or above are considered to be treated for having difficulty with self-restraint. The internal stability of this scale is very high. The alpha coefficient of this test has been reported 0.98. In addition, the reliability of the retest method of this was 0.84. The structural validity of the self-control rating scale is very good and there have had a significant predictable correlation or non-correlation with

Peabody Picture Vocabulary Test, matching similar shapes, Proteus Maze test, and observers' assessment of behaviors. Validity of well-known groups (differential credit) for the scale has also been well reported and provides a significant distinction between high and low ranked groups in out-of-task behaviors.

## Findings

The results obtained from demographic information (Table 1) demonstrate that the highest frequency was observed from 31 to 40 years old in terms of age (49.3%) and in education, bachelor and less (70.7%) forms the highest sample size. Also, in terms of the number of children, the highest frequency is related to one child (51.3%).

**Table 1: Demographic information**

Variable	Group		
	Mothers	Frequency	%
Age	25-30	65	43.3
	31-40	74	49.3
	41 and up	11	7.3
Children number	1	77	51.3
	2	60	40
Education	3 and up	13	8.7
	Bachelor and lower	106	70.7
	Master	40	26.7
	P.H.D	4	2.7

**Table 2: Descriptive Indicators**

Variables	Lowest	Highest	Mean	Standard deviation	Skewness	Kurtosis
Self-control	76	208	129.13	26.66	-1.62	3.05
Need for autonomy	7	42	18.68	7.42	-1.01	1.09
Need for competence	13	41	28.19	6.86	-0.98	0.17
Need for communication	11	41	23.83	8.66	-0.97	0.28

In order to investigate the relationship between self-control and self-determination of mothers, Pearson correlation was used which correlation matrix of the research variables is reported in Table 3. According to Table 3, there is a significant relationship between self-control and basic psychological needs; the relationship between self-control with autonomy, competence and communication are -0.41, -0.39 and -0.35, respectively. This finding suggests that with increasing self-control scores, the scores of psychological needs are reduced. Since high scores on self-control scale indicate inappropriate self-control status, thus increasing basic psychological needs leads to decreasing self-control levels and vice versa.

**Table 3: Correlation matrix of research variables**

No.	Variable	1	2	3	4
1	Self-control	1			
2	Autonomy	-0.41**	1		
3	Competence	-0.39**	0.5**	1	
4	Communications	0.35**	0.57**	0.53**	1

\*p<0.05, \*\*p<0.01

In order to determine the self-determination contribution of mothers in self-control prediction, regression analysis was used, whose analysis is shown in Table 4.

**Table 4: Beta, T coefficients and significance level of psychological needs in self-control prediction**

Variable	B	$\beta$	Standard error	T	Sig	VIF	Tolerance
Constant number (a)	176.63	-	8.35	21.14	0.001	-	-
Autonomy	0.90	-0.25	0.33	-2.7	0.001	1.62	0.62
Competence	-0.87	-0.22	0.35	-2.49	0.01	1.51	0.66
Communication	-0.25	-0.08	0.29	-0.87	0.38	1.69	0.59

The findings in Table 4 show the coefficients of impact and the T-statistic of predictive variables, having self-determination with coefficient of -0.25 and competence with a coefficient of -0.22 negatively and at the level of 0.001 for self-control prediction, but the need for relationship has not self-control prediction power. This negative relationship unveil that low self-control scores can be predicted by having high scores in each of the psychological needs; also, the values of VIF (not higher than 10) and tolerance (not less than 0.1) should also be indicative of satisfying multicollinearity assumptions.

## Discussion and Conclusion

The present study was conducted to predict the self-control of preschoolers based on mothers' self-determination. To investigate the study purpose, the collected data were analyzed using Pearson correlation coefficient and the results showed that self-control relationship with self-determination is negative and significant at 0.01 level. As well as, multi-variable regression analysis was used to determine self-determination contribution in self-control prediction. The results revealed that basic psychological needs (autonomy, competence) foresee preschoolers' self-control negatively.

This outcome is consistent with the findings of Hosseini, Samani (2012), Sharifi, and Karshki (2011), Sanghag, & Grazyna (2013)<sup>[11]</sup>. Given the results obtained, in explaining this hypothesis, it can be stated that individuals naturally need self-determination; they want to believe they will engage in activities with their own will, that is, they want themselves - not to receive external rewards or to avoid punishment<sup>[12]</sup>. These theorists believe that when individuals perceive themselves as the cause of their behavior, they are internally excited. When people are convinced that they are behaved for other's rewards, compulsions, or pleasures, they are excited externally. Based on self-determination theory, first proposed by Deci and Ryan (1985), human motivation is based on basic psychological needs of autonomy, competence and sense of belonging<sup>[12]</sup>.

If self-determination is high in mothers, that is, it accompanies with increase of autonomy, competence and sense of belonging, which plays important role in child upbringing, enhancing self-control in children. Since humans are social beings with different emotions and behaviors and depending on the context

of the family in which they grow, people with proper control of their emotions and feelings or inappropriate control may be existent. To this reason, one of the theories that can predict self-control of children is self-determination theory. This theory is a motivational one centralizing on the growth and function of personality. This theory concentrates on the determination level of individual behaviors. That's being said, the level at which a person at the highest level can affirm his/her actions and feel free to do so. When the level of this determination increases in confirmation of parents' actions, the growth of positive components in children will increase, so it can also predict the self-control in children.

This research has been accompanied by limitations including that the research has been solely implemented in the first district of Tehran city, which restricts the generalization of the results to other parts of Tehran. Additionally, the statistical population of the research was male preschoolers which also restricts the generalization of the results to girls. Therefore, it is recommended that studies be carried out according to the limitations. Also, according to the literature review and the results of this study, for preschoolers suffering low self-control, appropriate psychological interventions in relation to their parental self-determination role should be regarded.

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