Original Article

The Development and Standardization of Psychometric Criteria of Attitude toward Adoption Questionnaire (ATAQ) and its Relation to Prosocial Behavior and Character Strengths

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Abstract

Introduction: The preset study aimed to develop and standardize the psychometric criteria of attitude toward adoption questionnaire and its relation to prosocial behavior and character strengths.
Methods: The method of this study was descriptive survey. The research population included all citizens living in Behshahr (N = 156195). The sample size of the study was 500 subjects of whom 50 subjects were selected through pre-investigation study by available sampling method and 450 subjects were selected by multistage cluster sampling in the final study. The research tools included the attitude toward adoption questionnaire, Prosocial Tendencies Measure Revised (PTM-R) by Carlo et al (2003), and character strengths questionnaire by Seligman and Patterson (2004). The research analysis method was exploratory factor analysis and Pearson correlation coefficient.
Results: The results of exploratory factor analysis by main components with varimax rotation indicated two components of attitude toward adoption being named respectively cognitive as the aspects of attitude toward adoption and behavioral-emotional aspects of attitude toward adoption. These two components explained 43.25% of the variance of the total sample. Cronbach's alpha coefficient was used to measure the reliability of the questionnaire. Cronbach's alpha coefficient was 0.709 for the whole questionnaire, 0.71 for the first component, and 0.713 for the second one. In addition, there was a significant positive relationship between desired social tendencies and the cognitive aspect of attitude toward adoption as well as the behavioral-emotional aspects of attitude toward adoption (P ≤ 0.01).
Conclusion: As a conclusion, the attitude toward adoption questionnaire has a desirable and appropriate validity and can be used as a useful tool for measuring the attitude toward adoption.

Declaration of Interest: None.

Key words: Attitude toward adoption, Prosocial behavior, Character strengths.

Introduction

Having children is a necessary part of life in many cultures. On the other hand, having no child is often considered as a personal tragedy affecting all members of the family and even the society. In addition, it leaves negative psychosocial consequences (1). In developing countries where childbearing is highly valuable, infertile couples encounter the problems such as obvious rejection to more complicated forms of social stigma leading to isolation and psychological distress (2). In general, more than 70 million couples in the world suffer from infertility (3). Despite the recent progresses in the treatment of infertility, 2% to 7 % of couples remain childless for the end of their lives (4) while only about half of the infertile couples get pregnant with fertility treatments (5). Infertility is a global health challenge with devastating psychological and social consequences for infertile couples. In the Iranian society, many women are

depressed and sad because they cannot have a child and are usually blamed for this, thus adoption is an alternative strategy for such couples (6). Adoption is a legal action in which a child is dependent on his parents who are not biologically related to him (7). In Iran, the issue of fertility is of great importance due to cultural characteristics. Therefore, the psychological and social conditions add to the importance of this issue and make it a psychological and social crisis for the individual (8). In such cases, the tendency to have a child can go on until adopting a child with no parents. Adoption is a logical solution for satisfying this intrinsic human need. Considering these issues, adoption can be regarded as a way for taking care of children in which the parent-child relationship is established in a legal, emotional, and social way between those having no relationship with each other and trying to achieve their goals, i.e. parental experience, parenting, and responding to the deprivations that had experiences (9). The presence of such concerns in couples along with the acceptance and experience of parental roles for the first time can bring them a lot of stress. Stress is a significant concept in childbearing and in is very close to disturbing the actions of parents and children. This issue can reduce the ability of parents in identifying and understanding the consequences of the child and sometimes increasing the behavioral problems of children (10).

Among the effective factor on the behavior of families in adopting children are the beliefs about family attitudes about the acceptance or rejection of the child by the people around them. Given the personal and emotional quality of the adoption process, helping families to overcome anxiety and even the crisis caused by the outbreak is of paramount significance (11). A study indicated that the concerns about non-attachment and identity issues along with the acceptance of parental roles for the first time can lead to a lot of stress and pressure. Such an experience can reduce the ability of parents to recognize and understand the child's consequences and increase children's behavioral problems (10). Unfortunately, a few studies on adoption and

its related issues have been conducted in Iran while in a research conducted by the University of Social Welfare, despite some methodological problems showed that the adopted children had better physical growth, social growth, and academic achievement compared to the children being kept at orphanage (12). Salehi and Bagheri Motlagh (13) indicated that todays, the supervision of orphans and uneducated children has many advantages socially and the case itself cannot be undeniable. In another study, Wind (14) indicated that despite the pre and post support of adoption in the USA, studies indicated low levels of service use, especially among adoptive children families with special needs. The study by Leslie H (15) found that the findings support the need for long-term care after adoption by families, especially families with special needs children. Another research by Tai-Soon Bai et al. (16) indicated that families are more inclined to adopt children with low age. In addition, parental involvement in local, regional, and adherent groups are among the most important contributing factor in assisting accept their positive attitudes toward the well-being of the adopted child. Jushi (17) has stated in the research that 64% believed that adoption was culturally unacceptable and only 17 % chose it as an option. Sustainable support, community unity and supportive laws were some of the suggestions made by respondents for improving adoption of adoption. In the results of Adonemi's study (1), the reasons given by 57.4% of infertile respondents who did not want to adopt religion (8.3%), cultural affairs (78.3%) and lack of family support (13.4%). Adopting a child among the poor women with low education is significantly less. Society support and motivation particularly through the media and through health care providers are a long way towards increasing adoption among women in developing countries. McAndrew (18) found that changing the patterns of adoption led to an increase in the acceptance of older children. This leads to linguistic delays in older toddlers being often exposed to their non-mother tongue causing many problems in creating early links with

new parents because of the lack of common literature.

A significant variable associated with adoption is prosocial behavior in parents. Based on studies so far, four types of prosocial behavior can be introduced which are: altruistic social behaviors, socially desirable social behaviors, favorable emotional behaviors and prosocial behaviors. The desirable social behaviors of the kind of self-assistance are defined as voluntary contributions to others because of concerns on the welfare and needs of others being manifested through constant responses to sympathy, norms and principles that are introduced to help others (19). Prosocial behavior is defined as helping others in response to a verbal or nonverbal request (20). Emotional prosocial behaviors are defined as the tendency to help others under emotional conditions (21). Collective prosocial behaviors are in the presence of others due to achieving approval, respect for others (peers, parents, etc.) and enhancing individual value (7). Character strengths are one of the new initiatives in the area of positive psychology, which, in Seligman and Patterson's (22) studies, evaluates the entire category of psychologists from a healthy person in the last 100 years and by referring to the seven great spiritual traditions being classified into six categories of virtue: wisdom and knowledge, courage, altruism, justice, moderation, self-excellence, and perfection. Moreover, in recent years, the discussion of ethics and ethical foundations was increased by the emergence of positive psychology. Pudy and Jackson (23) described the impact of parenting education on parenting education providing parents with guidance for managing child behaviors, and helped them in the decision-making and adoption process of the child, and increased the character strengths of these parents. Pesifisi et al. (24) in their study of online child-bearing parent education concluded that such a training increased the satisfaction and accuracy of parents and increased awareness of their child's requirements. Samaya et al. (25) concluded in a study entitled "Knowledge and attitudes toward adoption among young couples" that 54% of couples desired to adopt a child if they did not have a child. 65% of them prefer to accept an orphan, and 68% of couples want to accept a child less than six months. 60% of them did not care about their child's gender.

Sometimes we can see parents failing in the process of adoption, an event that is devastating to parents and children. All of these issues emphasize the requirement to receive educational and counseling services before and after adoption of the child's children. One of the most critical things, which can help parents and adoptive parents and the adopted children on the one hand, and adoption counselors, including counselors, is having access to the scientific and applied resources which are a must-have for all those being somehow involved in the adoption process (26). It is believed that with the results of this study, considering the society's attitude toward adoption, it would be possible to eliminate obstacles and increase willingness to do so, and the custodians would apply the positive outcomes to their goals; In addition, if the goals of this research are achieved, the results can be used by experts, custodians, and lawmakers of adoption, and well-being and rehabilitation centers. In addition, it can be used as a tool for collecting data in some relevant research. One of the most significant steps in adoption process is data collection. Couples should understand many of the available options and the psychological issues of adoption before they move further (27). Constructing an adoption questionnaire for measuring the attitudes of the public towards it and increasing awareness at the same time is the current need of society; therefore, the question rose as to whether the researcher-made attitude of adoption questionnaire had validity and reliability?

Method

The method of this study was applied to the purpose of the study and was descriptive-survey method and correlational in terms of data collection method. This study was conducted for making and measuring the questionnaire of attitude towards adoption and its relationship with prosocial behavior and character strengths. The population of the study included all citizens living in Behshahr

(N = 156195), of whom 77923 subjects were male and 78272 subjects were female. The sample size of the study was 500 of whom 50 subjects were selected by the preliminary investigation through convenience sampling method and 450 subjects were selected through multistage cluster sampling in the final study. Thus, from various parts of the city, male and female samples were selected as a group of neighborhoods and alleys. It should be noted that in the final study, the data of 416 subjects were analyzed.

The research tools included: (a) Attitude toward adoption questionnaire- this questionnaire was first developed by Abdollahzadeh, Chaloyi and Mahmoudi. Preliminary Edition: This questionnaire has 23 items based on the Likert scale of 1 (totally Disagree), up to 5 (Totally Agree) being obtained after refining the items designed to construct the present tool and pre-study study. The analysis of item and initial psychometric analyses indicate that there are two factors in it. Items 3-10-11-12-14-15-16-17-19-20-21 are reversed and the rest are graded positively. The internal consistency coefficients of such factors were between 0.437 and 1.

B. Prosocial Tendencies Measure Revised by (Carlo et al., 2003): The 23-item form of this questionnaire was developed for self-report evaluation of the six types of prosocial behavior among university students: Carlo and Randall (21) evaluated the fit coefficients of an appropriate model by using confirmatory factor analysis in university students. In the Prosocial Tendencies Measure Revised questionnaire, 2 items were added to the items. Six subclasses and Cronbach alpha coefficient include: Cronbach's are: collective prosocial behavior (4 items, 0.78), unknown prosocial behavior (5 items, 0.85), prosocial behavior in emergency situations (3 items, 0.63), emotional prosocial behavior (4) 0.75), compliant prosocial behavior (2 items, 0.80) and altruistic prosocial behavior (5 items, 0.74). Retest reliability coefficients in the study by Carlo et al (21) in two week intervals were obtained for collective prosocial behavior (4 items, 0.56), unknown prosocial behavior (5 items, 0.78), prosocial behavior in emergency situations (3) 0.63), emotional

prosocial behavior (4 items, 0.82), compliant prosocial behavior (2 items, 0.73), and altruistic prosocial behavior (5 items, 0.73). The response spectrum of this questionnaire is five degrees (it describes me completely = 5 and does not describe me at all = 1). Item 5 was reversed. The minimum score being accountable on this questionnaire was 25 and a maximum of 125.

C. Character strengths questionnaire: The VIA-IS questionnaire was developed by Seligman and Paterson (22) and has 24, five-choice questions being ranked based on the Likert score. Its components included the questions of knowledge and wisdom 1-5, questions of courage 6-9, questions of altruism 10 to 12, questions of justice 13-15, questions of moderation 16-19, and questions of excellence 20-24. The method of scoring it is like 5- totally similar to me, 4==similar to me, 3= no idea, 2= opposite of me , 1=totally opposite of me and I totally reverse = 1; Also, its range is from 24 to 120 and its cut point was 72. The validity of this questionnaire was investigated by Shahghanian et al. (28) through confirmatory factor analysis (0.78) and its reliability by Cronbach's alpha coefficient (0.88).

The present study was conducted in two phases and two phases, construction and standardization.

A. *First phase (Construction):* Preliminary edition of the questionnaire: A set of actions and activities undertaken during the pre-selection phase include: 1. Studying the research fundamentals and achievement of the theoretical model of questionnaire making; 2. Extracting the concepts, structures and indicators related to each of them; 3. Setting up the question bank and the pre-qualification version of the questionnaire; 4. Out of five experts asked for the questionnaires to be unplanned, Farsi instructions and clarity are discussed. 5. Implementing the pre-qualitative version of the questionnaire for a group of 50 available individuals; and 6. Reforms are required in the pre-edition versions of the item and the compilation of the introductory version. Second phase: construction and evaluation of psychometric properties of the preliminary edition of the questionnaire: After

obtaining a qualitative questionnaire, the research entered the preparatory phase of the research and the following actions were carried out: 1. Evaluating the psychometric properties of the introductory article items; Achieving an exploratory factor model; and (3) the necessary modifications in the introductory version and the achievement of the final version of the questionnaire.

B. The standardization of the first phase: Examining the psychometric properties of the Instrument. In this phase that aimed at finalizing the questions and the whole tool, the following measures were taken:

1. Extracting multi-stage cluster sampling and representing the studied population.

2. Implementing the final version of the questionnaire in the studied sample.

3. Reviewing the psychometric properties of the final version questions.

4. Evaluating the exploratory factor model in the tool.

5. Analyzing the patterns for coordination.

6. Applying the necessary amendments to the final version and finalizing the questionnaire for use in other research.

Second phase (Extracting normative tables): In this phase, after examining the necessary occasions for the extraction of normative tables, such tables were extracted for each of the two components and general score of attitude toward adoption. Descriptive methods such as frequency and percent frequency and inferential methods such as Pearson correlation coefficient and exploratory factor analysis were used for data analysis.

Findings

In this study, 50 males and females were selected in the preliminary study stage. At the second stage, 416 people, 123 males (30%) and 293 females (70%) participated.

Table 1. KMO test for the adoption questionnaire

KMO value	0.841
Bartlett Test of Sphericity	2629.067
Degrees of freedom	276
P Value	0.001

Based on the results of Table 1. The value of the KMO test is 0.841. Therefore, the sample size for this study was satisfactory and it was concluded that the data of the questionnaire were reduced to a number of fundamental factors. In addition, the result of the Bartlett test (2629.067) being significant at an error level of less than 0.01 shows that the correlation matrix between the terms is not the unit matrix; On the one hand, there is a high correlation between the items within each factor and on the other hand, there is no correlation between the items of one factor with other factors.

Table 2. Understanding the contribution of each factor in explaining the total variance of all items

components	Eigen values		
	total	Percentage of variance	Cumulative percentage of variance
1	5.528	27.133	27.133
2	3.230	16.124	43.277

As shown in the table above, two factors with an Eigen value are higher than one. Thus, out of a total of 23 questions, two factors can be created. The share of each factor in the explanation of 23 items was descending, i.e. the first factor had the highest share (27.13% with an Eigen value of 528.5) and the second factor had the lowest share (16. 124%) with an Eigen value amount of 3.230% in explaining the variance of 23 items. In general, all of the two factors with Eigen values higher than one could explain 43.253% of the 23-point variance related to the questionnaire being indicated in the following scatter plot.

Figure 1. The scatter plot of the questionnaire items

Table 3: The rotation matrix of the questionnaire

Questions	factors	
	First factor	Second factor
1-the infertile couples should adopt children.	0.590	
2-the families with financial resources, despite being fertile, should adopt a child.	0.556	
3- Having no child is better than adopting a child.	0.400	
4- I welcome any suggestion by close relatives / friends / spouse, etc. as child adoption.	0.516	
5- I admire the families who adopt an orphan.	0.615	
6- The adopted child t increases the life span of couples.	0.617	
7-The opinion of those around about adoption is not important but the views of couples are important.	0.524	
8- In adoption, it does not matter whether infertility is either from the male or female.	0.622	
9-Infertility couples, whose infertility is diagnosed by the r infertility doctor, should look for adoption instead of waiting.	0.649	
10-It is better to hide adoption from others in different ways (such as fake pregnancy or immigration) and keep it as a secret between husband and wife.	0.498	
11- Race and beauty of the adopted child is important.		0.544
12-in adoption, gender is important.		0.694
13-he adopted child should be loved like the biologic child.		0.602
14-If a child is adopted and subsequently suffers from a severe illness, she should return to the welfare organization.		0.530
15-In adopting a child, family / social background of the child is important.		0.555
16-the adoptive parents cannot satisfy the emotional needs of their adopted child.		0.539
17-No matter how much parents do well in parenting the adopted child, genetic effects are more important.		0.633
18-it is important to give a healthy happy human to the society no matter if he is our child or not.		0.691
19-The adopted child should owe to the adoptive parents.		0.534
20-the adoptive parents may be embarrassed by having adopted children in family and social relationships.		0.427
21-It is necessary to differentiate between the adopted child and the biologic in terms in terms of inheritance.		0.601
22-In order to guarantee the future and security of the adopted child, one third of the property should be given to the child.		0.532
23-Administrative and legal barriers of Welfare Organization are essential in adoption.		0.514

Table 3. Indicates the number of items listed under factors 1 to 2 showing the most effective questions about the questionnaire. The rotated matrix table indicates that all questions are effective and should be used while there is no need to remove any of the questionnaires.

Table 4: Reliability of attitude toward adoption questionnaire and its components (Cronbach's Alpha)

	M	SD	Cronbach's Alpha	Items	Questions
First component (cognitive aspects of attitude toward adoption)	31.28	5.71	0.721	10	1,2,3,4,5,6,7,8,9,10
Second component (behavioral and emotional aspects of attitude toward adoption)(	40.132	6.321	0.713	13	11,12,13,14,15,16,17,18,19,20,21,22,23
Attitude toward adoption	71.82	10.31	0.709	23	

Accordingly, Table 4. Indicates the Cronbach's alpha value for the whole questionnaire and the components of the first component was 0.717, the second component was 0.713 and the total number of the questionnaire was 0.709 indicating that this questionnaire has high reliability. In order to evaluate the validity of questionnaire and compare it with the validity of the initial exploratory factor analysis, a confirmatory factor analysis was used with the use of LISREL software.
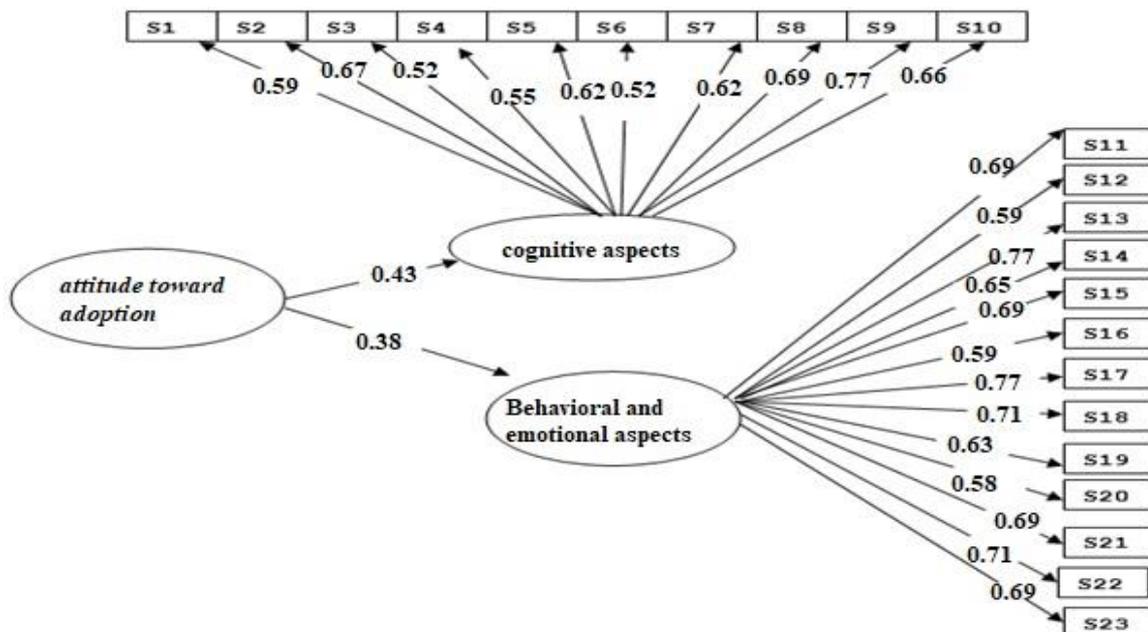

Figure 2. The final model of confirmatory factor analysis

Table 5: General fit indices of the tested model

Fit index	Optimal value	Observed value	Result of fit
(Chi-square/df)	Less than 3	2.51	Appropriate
(CFI)	More than 0.90	0.97	Appropriate
) NFI(	More than 0.90	0.93	Appropriate
(IFI)	More than 0.90	0.97	Appropriate
(GFI)	More than 0.90	0.96	Appropriate
(NNFI)	More than 0.97	0.97	Appropriate
(RMSEA)	Less than 0.08	0.07	Appropriate

Based on Table 5. the high level of comparative fit index (CFI), normative fitness index (NFI), incremental fit index (IFI), good fit index (GFI), non-normed fit index (NNFI) and low RMSEA of the structural model had an appropriate fit.

Table 6: Pearson correlation coefficient between factors and whole test and each subscale with each other.

Variable	1	1	1
Attitudes toward adoption (general)	1		
Cognitive aspects of attitude toward adoption	0.437**	1	
Behavioral and emotional aspects of attitude toward adoption	0.556**	**0.428	1

*P≤ 0.05 **P≤ 0.01

Table 6. Indicates the Pearson correlation coefficient between the whole test and each sub-scale with each other from the test.

In the internal consistency approach, the high correlation between factors with the general construct shows the convergence of factors with the total score of the questionnaire the results of which are shown in the table.

Table 7: Pearson correlation coefficient of the questionnaire

Questionnaires	factors	Cognitive aspects of attitudes toward adoption	Behavioral and emotional aspects of attitude toward adoption
prosocial behaviors tendencies	Unknown prosocial behaviors	0.478**	**0.341
	Collective prosocial behaviors	0.331**	*0.316
	Emotional prosocial behaviors	0.321**	**0.231
	prosocial behaviors in emergency situations	0.511**	0.309**
	compliant prosocial behaviors	-0.401*	0.401**
Character strengths	Knowledge and wisdom	0.336**	0.548**
	courage	**0.389	0.519**
	Altruism	*0.419	0.488**
	justice	0.444**	0.329**
	Moderation Excellence	0.385**	0.341**

*P≤ 0.05 **P≤ 0.01

Table 7. Shows the Pearson correlation coefficient of attitude toward adoption with the questionnaire of prosocial behavior tendencies and character strengths. Based on the results, the components of attitude toward adoption with prosocial behavior tendencies are as follows: unknown prosocial behavior, collective prosocial behavior, emotional prosocial behavior, prosocial behavior in emergency situations, and compliant prosocial behavior and there is a significant correlation with the components of character strengths such as knowledge and wisdom, courage, altruism, justice, moderation and excellence.

Discussion

The present study aimed to construct and standardize the attitude toward adoption of questionnaire and review the psychometric properties. This study was conducted in two stages of construction and standardization. The result of the construction phase, which was conducted in two phases was to achieve a preliminary questionnaire with 23 items for finalizing the tool structure, evaluating the psychometric properties, and conducting the normative tables in the standardization process. In the study of the reliability of the questionnaire, since the value of chi-square was large and significant in terms of statistics (067.26329), and the KMO index was equal to 0.841, this number was very close to one, so that the sample size was sufficient and satisfactory for this review.

In the standardization stage, the results of the exploratory factor analysis by the principal components of the varimax rotation on the data showed two factors having the necessary adaptation to the theoretical basis. An evaluation of the index necessary for this analysis indicated that these indicators are in a good range. This index shows that the components in the analyzed data are appropriately differentiated and can be extracted from the analyzed matrix; In other words, while the concepts and structures embedded in the questionnaire are both conceptually and statistically related, the embedded items are designed in such a way to be identified and separated from each other. Meanwhile, the responses to the items are conducted by the individuals in the sample group each of which having a degree of unit variance distinguishing it from other items. The results of factor analysis indicated that the amount of variance explained by the extracted factors is about 43.253 percent of the total questionnaire variance. According to Mollick et al. (29) and Nanali (30), the minimum acceptance rate for this index is 50%. However, since the present questionnaire will be difficult to achieve a set of items which can explain a large part of the variance of the whole questionnaire because of the presence of multiple structures with complex and multilevel relationships. Hence, this amount of explanation of variance for the first step of making such a reasonable and acceptable questionnaire is considered.

The range of internal consistency coefficients (Cronbach's alpha) is extractive factors in the attitude toward adoption perspective indicating the intrinsic coherence of the factors and the relationships between the items. In addition, the findings indicated the coefficients of correlation of each item with the total score of the average questionnaire. Since each of these coefficients represents a clean index of items (31), such an index can be regarded as the amount of the ability and sensitivity of each element in identifying the differences between individuals. Since the minimum value of this index is 0.30, most of the indices are in this range. However, a number of items have a lower index being required to improve items. Such items are more in the cognitive aspect of attitudes toward adoption.

In the study of the convergence validity of attitude toward adoption questionnaire, the correlation of this questionnaire with the variables of prosocial behaviors and character strengths was studied. The results of correlation matrix indicated a significant positive correlation between unknown prosocial behaviors and cognitive aspects of attitude toward adoption and behavioral-emotional attitude toward adoption. The relationships between the factors of attitude toward adoption and the components of prosocial behavior indicated that such factors have a direct relationship with the components of unknown, collective, emotional prosocial

behavior, emergency situation, and compliant prosocial behavior. Only compliant prosocial behavior is related reversely with the cognitive aspect of the attitude toward adoption. Such relationship is explained by the fact that in adoption, one seeks for a shelter and a hot spot to continue to live better and more profitable, the other party looks for someone to give him love and affection. Altruistic prosocial behaviors are defined as voluntary contributions to others due to the concerns about the well-being and needs of others being manifested by the constant response to sympathy, norms, and principles being introduced for helping others (32). In order to illustrate the inverse relationship between compliant prosocial behaviors and cognitive aspect of attitude toward adoption, it can be noted compliant prosocial behaviors are defined as assistance to others in response to verbal or non-verbal requests. It is expected that the high levels of compliant prosocial behaviors are more relevant than ethical validation methods and are not linked to one another, sympathy, or high levels of moral reasoning. The amount of compliant assistance has been more spontaneous and most studies in this area have been conducted in comparison with adults for children (32). Such a fact can justify the direct relationship between the compliant prosocial behavior and the behavioral-emotional aspect of attitudes toward adoption. Jushi et al. (17) have been researching the attitude toward adoption among infertile couples; the main reasons for having a child are family happiness, family continuity, and family completion. In addition, it highlights the reasons for not accepting adoption among some infertile couples, the fear of social stigma, and the sense that society does not think about adopting, adoptive parents, and adopted children. On the other hand, prosocial behaviors are positively correlated with the factor of flexibility. Empiricism or flexibility versus experiences reflects the extent, depth, and complexity of the mind and the experience of one's life implying the power of imagination, curiosity, diverse interests, innovations, and intellectual attitudes. Given the flexibility characteristics, this factor can be directly and indirectly

through the mediation of empathy (the perception and understanding of mental state of others without experiencing the real and practical effect of their feelings) will affect prosocial behaviors (33). Based on the results, there is a good correlation between the components of attitude toward adoption and the components of character strengths. In order justify this, the concept of character strengths (which means the ability of creating new ideas, interests in continuous experience and discover new subjects, fair evaluation of events of life, guidance and wise measures to others); and the concept of attitude (which is love or dislike, desirable or undesirable to appreciate the objects, individuals, situations, and other aspects of the world including abstract concepts and social lines to them should be regarded. On the other hand, the adoption of a child by a woman without the child's understanding of the child requires a satisfactory evaluation in a new experience (including deep-thinking, intellectual, creativity), courage (including liveliness), altruism (including the abilities of love, kindness, social intelligence), justice (including fairness ability), moderation (including forgiveness, humility, and futurism) and excellence (including spirituality, hope). Hope and vitality are the signs of the power of subsistence, and positive attitude toward adoption enhances prosperity and life satisfaction. Researchers found a link between hope and life satisfaction as well as the hopes for a satisfactory life expectancy. The result of this study indicated the significance of positive psychological states including optimism (35). Khodabakhsh (36) indicated that positive treatment with an emphasis on character strengths decreases depression but increases the dimensions of pleasurable, committed, and responsible life among individuals. In another study, it was found that mental health of infertile couples with an adopted child is in a better position than that of unaccompanied families (32). The results of the two studies showed the correlation between positive attitude toward adoption and character strengths. In general, the results of the research findings indicated that attitude toward adoption has good reliability and validity and

can be used as a useful tool for measuring attitude toward adoption.

Since the questionnaire of attitude toward was not designed so far, the adoption of the attitude toward adoption questionnaire, being realized in the present study, can open new paths for developing and conducting research in the field of adoption. Therefore, researchers are suggested to consider the psychometric properties of the attitude toward adoption in other populations in relation to other concepts and variables. Among the limitations of this research is that the data of the present study were collected by self-report questionnaires and self-report tools are always affected by two intervening variables of positive self-presentation and inaccuracy of individuals in their judgments; Furthermore, this research was conducted only in Behshahr and caution should be paid in the generalization of the findings to the rest of the population.

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