



# The comparison of the purpose and meaning of life before and after children's cardiac catheterization in parents

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## ABSTRACT

**Introduction:** The purpose and meaning of life is one of the most important religious, managerial, philosophical and psychological issues. Having meaning and purpose in life reflects mental health and increases the person's ability to do things. Therefore, the purpose of this study was to compare the purpose and meaning of life in parents before and after cardiac catheterization in children in Chamran Hospital of Isfahan in 2016.

**Method:** This research is a descriptive analytic study. The statistical population was all parents of children admitted to Shahid Chamran Hospital in Isfahan, who referred to their child's cardiac catheterization. The sampling was done in a convenient way and equal to 89 people. To collect information, a demographic questionnaire and standard questionnaire of purpose and meaning in life (Crumbaugh & Maholick, 1969) with a reliability of 0.85 were used.

**Results:** The results of this study showed that there is a significant difference between the purpose and meaning of life in parents before and after cardiac catheterization, and after cardiac catheterization was more than before. Also, there was a significant difference between the purpose and meaning of life in parents based on the educational level of the child and the age of the mother.

**Conclusion:** According to the results, the parents after the cardiac catheterization of the child had a higher life purpose and meaning compared to before operation. Parents seem to hope for life after the completion of child's cardiac catheterization and in the hope of recovery, and they find the purpose and meaning of life.

**Keywords:** meaning of life, children, parents, cardiac catheterization

## INTRODUCTION

Today, cardiac catheterization is still considered as an appropriate diagnostic method for the diagnosis of coronary artery diseases. Catheterization and angiography have led to a change in the care of children with cardiac disease. Cardiac catheterization is a suitable method for anatomical and physiological examination in patients with congenital cardiac diseases (1).

At present, the best and most definitive diagnostic and therapeutic method for coronary artery diseases is catheterization that is widely used (2). Cardiac catheterization, like any other invasive diagnostic method, can cause complications. Possible complications of this diagnostic method include vascular obstruction, arterial thrombosis, arrhythmia, hematoma, and even heart rupture and death (3). Therefore, fears of uncertain complications in many cases cause concern among patients and their families. This is more important for children with fewer physical and resistance than adults. On the other hand, the increasing need for catheterization in pediatric patients as a diagnostic-therapeutic method has increased the increasing level of concern among families of children with congenital heart diseases (4).

Üzger et al. believe that the parents of patients undergoing cardiac catheterization consider their life less meaningful than others and have a lower life expectancy index (5). Children are considered vulnerable and human capital of the country, and failure to address them can not only waste huge amounts of manpower and huge capital, but ignoring their basic needs is considered inhuman. On the other hand, reducing the physical and mental efficiency of children and the illness can increase the cost of health and weaken the family's foundation (6).

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Received: 12 Jan 2018, Accepted: 05 Feb 2018

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Electronic Journal of General Medicine

In recent years, attention to the meaning of life has attracted new attention, perhaps linked to an increasing focus on positive qualities. Despite the difference in definitions and ways to reach meaning in life, most scholars find meaningful lives equal to good and right lives that its focus is on the development of personality and meaning and purpose in life. If a person does not achieve the meaning and purpose in life, he or she experiences a psychological distress, and the existence of a lower meaning in life can be combined with the need for treatment of depression, anxiety, suicide attempt and substance abuse, and having meaning in life can be accompanied by pleasure of work, life satisfaction, happiness and better psychological and social performance (7). In other studies, the connection between meaning in life and well-being has also been found (8).

The researchers are seeking to understand the relationship between the meaning of life and hope. Lives of many people, due to common reasons related to ideals, living conditions and their own personal relationships, becomes temporarily or permanently absurd. The meaning of life is one of the most important philosophical, psychological and religious issues of mankind in the new era and the age of industrialization of societies and the progressive development of science and technology (9). The origin of the search for meaning may be rooted in the individuals' identifying style. Searching for meaning may indicate a goal in the future or, in a way, inability to relieve from painful experiences. Searching for meaning may be questions about values and ideas about life and based on various motivations (7).

In a study comparing the amount of concern, hope and meaning of life in mothers of children with autism, Berjies and colleagues found that increasing the meaning of life in mothers of children with autism, in deaf children and children with learning disability, the hope is also increased and concern is decreased, and vice versa (10). In a study entitled the comparison of the meaning of life and hope in disabled people with spinal cord injury, blind, and non-disabled people, Khodabakhsh Koolayee and his colleagues found that the mean score of search for life meaning in non-disabled people was higher than the other two groups (11).

The researcher has observed the hospitalization of children in the hospital environment for angiography, and for the researcher it has been questioned whether the purpose and meaning of life in parents is different before and after children's cardiac catheterization. It is hoped that with the answer to this question, we will offer suitable suggestions for family-centered care planning. Therefore, the present study aimed to compare the purpose and meaning of life in parents before and after children cardiac catheterization in Chamran hospital in Isfahan in 2016.

## **METHOD**

This research is a descriptive analytic study. The statistical population was all parents of children admitted to Shahid Chamran Hospital in Isfahan, who referred to their child's cardiac catheterization. Sampling was done in a convenience method and using the Cochran sample size formula equal to 89 people. To collect information, a demographic questionnaire of 13 questions and standard questionnaire of purpose or meaning in life (Crumbaugh & Maholick, 1969), whose reliability was calculated to be 0.85, were used. This test is a 20-items self-report scale that measures one's perception of purpose and meaning of life. In order to answer the questionnaire, parents need to choose a numerical question from 1 to 7 that shows their views. In order to obtain the total score of the questionnaire, the total score of each single question is computed, the lowest score that a person may earn on this scale is 20, and the highest score is 140. Getting a score below 60 on this scale indicates that there is no meaning in life, a score between 60 and 80 indicates the low life meaning and a score between 80 and 100 indicates the average life meaning and a score higher than 100 indicates the high life meaning and a score higher than 120 represents a completely meaningful life. Results were analyzed with SPSS version 20 software. After obtaining the code of ethics and permission from the Islamic Azad University of Esfahan (Khorasgan) and introducing himself to the authorities of Chamran Hospital, the researcher began to conduct research on 22/10/2016. After coordinating with the department's angiographic department, the parent's list whose children were supposed to be under cardiac catheterization was extracted, and if they have inclusion criteria including the age of the child up to the age of 20, the willingness to participate in the study, no previous history of angiography or cardiac surgery in the child were selected and included in the study. The researcher in the department of angiography, in the admission room, after introducing himself to the child's parents, explained the research objectives and, if they agreed, an informed consent form was given to them. The demographic questionnaire and standard questionnaire of purpose or meaning in life (Crumbaugh & Maholick, 1969) were completed by parents before going child to the angiography surgery room. In the second stage, the questionnaires were completed by the parents after the completion of the child's surgery and after entering the child into the post-angiographic ward and after obtaining informed consent. Sampling ended on 22/01/2017.

**Table 1:** The results of the life purpose and meaning scores (before and after cardiac catheterization)

Variable	Number	Mean	Standard Deviation	Minimum	Maximum
The purpose and meaning of life (pre-test) before child's cardiac catheterization	89	89.39	26.49	39	131
The purpose and meaning of life (post-test) after child's cardiac catheterization	89	105.91	20.32	65	138

**Table 2:** Comparison of the purpose in life according to the child's educational level

	Indices Educational level	Sum of squares	Degree of freedom	Mean of sum of squares	F	P
Before child's cardiac catheterization	Intergroup	11247.19	5	2249.43	3.69	0.05
	Intra-group	50520.04	83	608.67		
	Total	61767.23	88			
After child's cardiac catheterization	Intergroup	6001.84	5	1200.36	3.35	0.008
	Intra-group	29665.43	83	357.41		
	Total	35667.28	88			

**Table 3:** Comparison of purpose in life according to mother's age

	Indices Mother's age	Sum of squares	Degree of freedom	Mean of sum of squares	F	P
Before child's cardiac catheterization	Intergroup	5654.29	3	1884.76	2.85	0.042
	Intra-group	56112.93	85	660.15		
	Total	61767.23	88			
After child's cardiac catheterization	Intergroup	272.04	3	90.68	0.218	0.884
	Intra-group	53395.23	85	416.41		
	Total	61767.23	88			

## FINDINGS

The result showed that the participants of the study were 89 parents of children hospitalized in Shahid Chamran Hospital in Isfahan, of which 54 parents had a female child and 35 parents male child. The highest number of children in the age group was up to 3 years old with a frequency of 40 children and the lowest number was in the age group of 6 to 11 years with a frequency of 8 children. Twenty-five mothers aged 15 to 20 years old, 39 from 20 to 25 years of age, 10 from 25 to 30 years of age, and 15 from over 30 years of age. There were 22 children in kindergarten, 20 in preschool, 7 in primary school, 10 in first period of secondary school, 5 in secondary period of secondary school and 25 in non-respondents.

Comparison of the parents' life purpose and meaning before and after cardiac catheterization of children is shown in **Table 1**.

According to **Table 1**, the mean and standard deviation of life purpose and meaning score (pre-test) that is before the child's cardiac catheterization was equal to  $26.49 \pm 89.39$ , while mean and standard deviation values for life purpose and meaning (post-test), that is, after childhood catheterization, was equal to  $20.32 \pm 105.91$ .

Comparing the purpose and meaning of the parents' life according to the educational level of the child in **Table 2** showed that with 95% confidence, there is a significant difference between the mean scores in the parent's life according to the child's educational level, as well as the results of the LSD post hoc test showed that the parents of children in kindergarten had a lower life purpose than the other, and parents of children in second period of secondary school had a higher life purpose than other levels.

The results of the life purpose comparison in relation to the age of the mother in **Table 3** showed that with 95% confidence, the mean scores of the life purpose in the parents after children's cardiac catheterization (post-test) did not differ significantly in relation to the mother's age, but this value for the parents, based on the age of the mother, was significant in the pretest.

Comparison of the difference in output means according to LSD test is presented in **Table 4**.

As shown in the table above, the calculated LSD values were significant only for paired comparisons between age groups (15 to 20 years of age with up to 30 years of age). However, LSD values in other cases are not significant. Also, the data in the pre-test show that mothers over 30 years of age compared the other groups have a lower life purpose and mothers between 15 and 20 years of age have a higher life purpose than other groups.

**Table 4:** Comparison of output means according to LSD test in pre-test

Variables and indices		15 to 20 years old	20 to 25 years old	25 to 30 years old	Up to 30 years old
	Mean	100.48	84.05	95.40	80.80
<b>15 to 20 years old</b>	100.48	-	16.24	5.08	19.68*
<b>20 to 25 years old</b>	84.05	5.08	-	11.34	14.60
<b>25 to 30 years old</b>	95.40	19.68	3.25	-	14.60
<b>Up to 30 years old</b>	80.80	19.68*	14.60	14.60	20.08

## DISCUSSION

The results of statistical analysis showed that the purpose and meaning of life of parents of children before and after cardiac catheterization is higher than average. But the purpose in the life of the parents has increased significantly after the child's cardiac catheterization. Given the fact that the way to reach meaning in life differs from people and there is no universal meaning that applies to everyone's lives, so every individual must create meaning in his/her life. Sense of meaning can be achieved by providing basic needs in terms of values, goals, efficiency, and values. Decision-making and daily performance can play a role in creating meaning in life (7). In general, according to the theoretical foundations of the subject of research which defines purpose and meaning in the reality of a situation or external or out-of-human state that people try to achieve by doing so. In spite of guiding tastes and motives from the inside, the purposes are external stimuli, which by stimulating human motives, lead people to their own (12). This definition shows that, despite the fact that individuals always try to achieve their purposes (goals) in life, external factors also have an impact on these purposes (goals). In this study, the hospitalization of the child and his/her cardiac catheterization, through which there is hope for recovery of the child's physical condition, are also factors that influence the purposes (goals) of the parent in life. In the reviewing researches carried out on the subject of this study, it was not found a study that explicitly compared the purpose of life in individuals before and after cardiac catheterization (or any other treatment), but in the results section, it has been compared with some implicit studies. The results of this study are consistent with the study of Nassiri and Jokarentitled meaningful life, hope, life satisfaction and mental health in women, as well as study by Berjis and his colleagues as the comparison of concern, hope and meaning of life in mothers of children with autism, deafness and learning disability. Researchers believe that the purpose (goal) in the lives of women, patients' and ordinary people's mothers in accordance with the results of the present study is at a desirable level (10, 13), while aren't consistent with the study conducted by Khodabakhshi Koolayee and his colleagues entitled the comparison of the meaning of life and hope in disabled people with spinal cord injury, blind, and non-disabled people. In this study, researchers also believe that young people and people with disabilities, in contrast to the results, have a low life purpose (goal). In general, this discrepancy can be attributed to the difference in the studied population as well as the difference in the means of measuring the purpose (goal) in life. For example, Khodabakhshi Koolayeeand his colleagues used Frankel's meaning seeking questionnaire to test purpose in the life of the studied sample (11). It is likely that this difference in the tool used is the reason why the results are not consistent. In the present study, the results showed that the purpose and meaning of the parents' life before and after their child's cardiac catheterization are not significantly different based on their child's gender, age of the child, birth rank in the family, hospitalization history, place of residence, parent accompanying, father's age, mother's education, father's education, mother's job and father's job. But there are significant differences between the purpose scores in the parents' lives based on the educational level of the child and the mother's age (pre-test). The results of post-hoc test showed that the parents of children in kindergarten had a lower life purpose than the other, and parents of children in second period of secondary school had a higher life purpose than other levels. But in the posttest, the parents of first period of secondary school children have a lower life purpose than other levels, and parents of children in second period of secondary school have a higher life purpose than other levels. Also, the data in the pre-test showed that mothers over 30 years of age had lower life purpose and mothers between 15 and 20 years of age had a higher life purpose than other groups. The results of Mohammadzadeh and Khosravi's study entitled the relationship between life purpose and coping styles with mental health among students are consistent regarding comparison of life purpose based on gender (14). This study also showed that there is no significant difference between the life purpose values in individuals based on gender. Also, the results are consistent with the study of Khodabakhshi Koolayee and his colleagues regarding the purpose and meaning of life in terms of age (11). In other studies, people aged 25 and over had a greater meaning and purpose in life than those aged 13-19 years. Of course, in the study, meaning and purpose in life were not related to age (15).

## CONCLUSION

Based on the findings, it was found that the parents after the cardiac catheterization of the child have a higher life purpose and meaning compared to before operation. In this regard, it can be deduced that parents after the hospitalization of the child in hospital and being familiar with the child's illness and its dimensions, especially after the child's cardiac catheterization, and subsequently to achieve recovery, hope for life and understand fully the purpose and meaning of life. Parents experience distress and consequently loss of purpose and hope in their lives at the time of admission and hospitalization due to lack of knowledge and the existence of stresses and worries that are mainly natural in these conditions, but immediately after the completion of catheterization and the hope of a child's recovery will make life more hopeful.

## RESEARCH LIMITATIONS

The statistical population of this study was only the parents of children hospitalized in Shahid Chamran Hospital in Isfahan and the research findings are limited to the subjects under study. The stress and mental states caused by child's admission in subjects and during answers to the questions were beyond the control of the researcher.

## ACKNOWLEDGMENTS

It is worthy of all from officials of the Islamic Azad University of Isfahan (Khorasgan), as well as the University of Medical Sciences of Isfahan and especially director and manager of nursing of Shahid Chamran Hospital, as well as the parents of hospitalized children and nurses who have co-operated with the researcher in achieving the goals of this research to be sincerely appreciated.

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