

# Quality of Life and Happiness among Mothers of Children with Congenital Heart Disease and Mothers of Healthy Children

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## Research Article

Volume 3 Issue 1

Received Date: March 07, 2018

Published Date: May 15, 2018

## Abstract

**Background:** Congenital heart diseases (CHD) are classified as one of the most serious chronic diseases among children. The whole family can be affected by the disease facing with numerous physical and mental problems. The aim of the study was to assess the quality of life and happiness among mothers of children with congenital heart disease and mothers of healthy children.

**Methods:** The study was a causal - comparative study. Samples consisted of 200 individuals (100 parents of children with congenital heart disease and 100 parents of healthy children), who were selected through purposive sampling. "Fordyce Happiness Questionnaire" and "The World Health Organization Quality of Life Questionnaire" used for data collecting. Data analyzed with Independent T-test and multivariate analysis of variance using SPSS v.16.

**Results:** The results showed significant differences between the quality of life and happiness among mothers of children with congenital heart disease and mothers of healthy children ( $P=0.001$ ).

**Conclusion:** Quality of life and happiness of the families can be affected by diseases. Sick children impose physical and mental problems on the whole family especially, mothers.

**Keywords:** Quality of life; Happiness; Congenital heart disease

## Introduction

Congenital heart diseases are the most common defect in children. Approximately 1% -2% of children are born with congenital heart diseases, annually. The exact cause of CHD is often unknown but 10%-20% of the defects are due to genetic and environmental factors. Over the past decades by new advances in the care and treatment of patients with congenital heart diseases, mortality rate of infants with the most complex heart diseases is reduced to less than 10% [1]. Despite life expectancy congenital heart diseases provide life-threatening conditions [2]. They cause psychological, physical and economical problems in children and their families [3]. In addition to the emotional stress, there are many other issues such as medications, their side effects and coping with new condition faced by families [4]. Each parent has a unique reaction with different levels of anxiety and mothers more than fathers are affected by their children's diseases [5]. All these factors affect the caregivers' quality of life. Kim, et al. [6] reported that stress has significant impact on the caregivers' quality of life, changes the ability of dealing with problems. Lawoko, et al. [7] in a study on quality of life among parents of children with congenital heart disease, healthy children and children with other diseases found that parents of children with congenital heart disease especially mothers, have the lowest quality of life than others and are subjected to mental disorders [7]. Nowadays, quality of life is one of the new concepts that are entered in health sciences. Quality of life insists on individual's understanding of the position in the field of cultural system and in connection with objectives and standards [8]. Quality of life is associated with mental health [9] and Happiness is one of the influential factors in quality of life. Arafa, et al. [2] reported different degrees of happiness in parents with children suffering from congenital heart disease [2]. Results of other studies showed that mothers may feel frustrated or guilty for having an ill child [10]. Hahn, et al. [11] reported that happy people use more effective coping strategies when they are encountered with stress [11]. Researchers have shown that happy people are more collaborative, feel secure and decide easily [12]. Happiness includes many aspects such as life satisfaction, positive emotions and lack of depression or anxiety [13]. Researchers believe that factor such as mental health obtains by the high level of happiness and satisfaction [14].

Since many difficulties imposed by the disease and considering the chronic nature of it, assessing the quality of life and happiness among parents of children with congenital heart disease is essential. The present study

assessed the quality of life and happiness among parents of children with congenital heart disease in comparison with parents of healthy children.

## Methods

The study was a causal - comparative study. Samples consisted of 200 individuals, 100 parents of children with congenital heart disease and 100 parents of healthy children. Parents of children with congenital heart disease selected through purposive sampling at Valiasr Hospital in Birjand, South of Khorasan who their children referred to pediatric cardiologist from June to July 2016. Parents of healthy children were selected through random sampling.

"Fordyce Happiness Questionnaire" and "The World Health Organization Quality of Life Questionnaire" used for data collecting. The World Health Organization Quality of Life Questionnaire consisted of 26 items. Its grading is based on likert scale as 1, 2, 3, 4, and 5. From quite satisfied to quite dissatisfied. The questionnaire has 4 sub scales with an overall score as follows: physical health, mental health, social relationship and environmental health. The score of each subscale should be converted to a standard score between 0 and 100 by a formula. The higher score indicates the better quality of life. The construct validity of the questionnaire by calculating the correlation between total score of each dimension with its constituents is reported from 0.45-0.83 [15]. The cronbac'h alpha coefficient for the questionnaire is reported 0.88 [16]. The cronbac'h alpha coefficient for the questionnaire in the present study is reported 0.94. It is reported 0.81, 0.84, 0.74 and 0.86 for the forth sub scales.

The Isfahan version of "Fordyce Happiness Questionnaire" (IFHI) is based on the 14th principles of Fordyce Happiness Questionnaire consisted of 48 items with 10 options with a score of 0 to 10. It is consisted of 16 sub scales which each the three questions assess one sub scale. The validity of the questionnaire is reported 0.73 by measuring the correlation between IFHI and Axford Happiness Questionnaire and the cronbac'h alpha coefficient for the questionnaire in the present study is reported 0.95.

This study was conducted by the approval of university ethics committee, which was gained by disclosing research method and objectives, and after obtaining written consent from all participants. Data analyzed with Independent T-test and multivariate analysis of variance using SPSS v.16. P value of less than 0.05 was considered significant.

## Results

The study was conducted to assess the quality of life and happiness among mothers of children with congenital heart disease and mothers of healthy children. The results

showed that there was a significant difference ( $P=0.001$ ) between the quality of life among mothers of children with congenital heart disease and mothers of healthy children (Table1).

Variable	Groups	Mean	SD	P Value
Quality of Life	Mothers of Healthy Children	94.9	12.4	P=0.001
	Mothers of Children with Congenital Heart Disease	78.5	16.4	

Table 1: Mean and Standard Deviation of Quality of Life in Mothers of Children with Congenital Heart Disease and Mothers of Healthy Children.

## Independent T-test

The results of multivariate analysis of variance showed significant differences ( $P<0.01$ ) between all the sub scales

of quality of life among mothers of children with congenital heart disease and mothers of healthy children (Table 2).

Item	Variable	SS	df	MS	f	P value	Eta correlation
Groups	Physical Health	820.4	1	820.4	32.44	0	0.141
	Mental Health	14436	1	14436	56.92	0	0.223
	Social Relationship	15587	1	15587	68.17	0	0.256
	Environmental Health	14164	1	14164	42.15	0	0.175
	Public Health	9629.9	1	9630	26.45	0	0.118

Table 2: Effect of Groups on Sub Scales of Quality of Life.

The results showed that there was a significant difference ( $P=0.001$ ) between happiness among mothers

of children with congenital heart disease and mothers of healthy children (Table3).

Variable	Groups	Mean	SD	P Value
Happiness	Mothers of Healthy Children	6.71	1.14	P=0.001
	Mothers of Children with Congenital Heart Disease	5.5	1.45	

Table 3: Mean and Standard Deviation of Happiness in Mothers of Children with Congenital Heart Disease and Mothers of Healthy Children.

## Discussion

The study assessed the quality of life and happiness among mothers of children with congenital heart disease and mothers of healthy children. The results showed significant differences between the quality of life and happiness among mothers of children with congenital heart disease and mothers of healthy children. Arafa, et al. [2] reported many severe impairments in multiple domains of quality of life in parents of children with congenital heart disease [2]. The results of other studies, Sadeghi, et al. [17], Lawoko, et al. [7] showed the low level of quality of life in parents of children with congenital heart disease which is consistent with the present

study[7, 17]. Based on the systematic approaches changes in one part of the family system will affect the entire system. Congenital heart diseases cause psychological, physical and economical problems in children and their families [3]. All these factors affect the caregivers' quality of life; threaten other aspects of their life. Yildiz, et al. [5] reported that mothers more than fathers are affected by their children's diseases as they spend more time with their children [5]. According to the results happiness is other issue which is less felt by parents who their children suffering from the disease. Congenital heart diseases make parents to feel hopeless or anxious. According to Salehi, et al. [18] mothers of disabled children feel less happy than mothers of healthy children [18]. Hahn, et al.

[11] reported that happy people use more effective coping strategies when they are encountered with stress. Since many difficulties imposed by the diseases and considering the chronic nature of them, happiness promotion in order to deal with stress is crucial. The results of all studies showed that quality of life and happiness are two important components which should be taken into account in parents of children with congenital heart diseases. The results of a similar study by Salehi, et al. [19] also confirmed the results [19].

The study had some limitations as follows: difficulties in attracting the participants to fill out the questionnaire, bias as the questionnaires were self reporting and few references of happiness variables.

## Conclusion

Quality of life and happiness of the families can be affected by diseases. Sick children impose physical and mental problems on the whole family especially, mothers. Besides treatments, health care providers should be managed programs to improve the caregivers' quality of life and happiness.

## Acknowledgments

This paper is part of M.Sc. dissertation approved by Birjand Islamic Azad University. The authors would like to thank the research deputy of Birjand Islamic Azad University for sponsoring the study, clinical research center at Birjand University of Medical Sciences and all participants without whom this study would not have been possible.

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