

A Study To Assess The Anxiety Level Of Family Members Of Children Undergone Orofacial Cleft Surgery In JMMC & RI.

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Abstract

Background: Since orofacial cleft is a common congenital anomaly, raising such a child will raise anxiety level of family members.

Objective: To assess the anxiety level of family members of children undergone orofacial cleft surgery.

To determine association of sociodemographic and clinical data variable on anxiety level of family members of children undergone orofacial cleft surgery.

Methods: A quantitative research approach with descriptive design was used and the participants were family members of orofacial cleft children below 10 years in smile train ward and OPD and selected by using convenient sampling technique. The first tool had sociodemographic and clinical data variables and the second tool had modified structured anxiety scales developed from Generalized Anxiety Scale, anxiety self-rating scale, impact on family scale.

Results: Gender wise distribution shows that 22(55%) are females and the rest are males. All the children have completed at least one surgery. 18(45%) of children with deformity are first child of parents, whereas 16(40%) are the last child and 6(15%) are middle child. The study revealed that majority of family members have moderate anxiety 29(72.5%) and 6(15%) of family members have mild anxiety. 5(12.5%) of family members are having severe anxiety. There is significant association ($p < 0.05$) between female child and anxiety level of family members.

Conclusion: Majority of the family members of the children who had undergone surgery were suffering from a moderate level of anxiety 29(72.5%)

Keywords: Anxiety, Family members, Orofacial cleft surgery.

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I. Introduction

Clefts are one of the most prevalent congenital defects worldwide and India has one of the highest numbers of cleft births globally and studies suggest that there are nearly 1 million untreated cleft patients^[1]. A wide variety of studies regarding this topic was carried out all over India, but none of them were conducted in Kerala. Orofacial clefts have a great impact on the physical and emotional well-being of children and parents^[2]. The timely intervention can help the family members to feel more supported, confident and develop a feeling of hope.

Objectives Of The Study

- To assess the anxiety level of family members of children undergone orofacial cleft surgery in JMMC&RI.
- To determine the association of socio demographic and clinical data variable on anxiety level of family members of children undergone orofacial cleft surgery in JMMC&RI

II. Methodology

A quantitative research approach with descriptive design was employed to assess the level of anxiety among family members (father or mother) of children who underwent at least one orofacial cleft surgery at Jubilee mission medical College and research institute (JMMC and RI) Thrissur, Kerala. Convenient sampling technique was used in which the family members of children below 10 years of age, those who were currently present at the

time of Data collection, were included in the study. Under this criterion, data was collected from 40 family members and the study was conducted in the smile train ward and OPD. The data collection was planned for two weeks. The tool consists of two sections:

Section A consists of socio demographic and clinical variables of family members and children.

Section B consists of a modified structured anxiety scale to assess the anxiety level of family members of children undergoing orofacial cleft surgery below 10 years of age in JMMC & RI.

The tool was self developed with suitable statements from generalized anxiety disorder scale anxiety by Spitzer (2006) , Zung self-rating scale by William W.K Zung (1971), Impact on family scale by R.E.K Stein and C.K Reissman (1980).

Content of tool

Psychological domain = 9 questions

Physiological domain = 6 questions

Spiritual domain= 3 questions

Social domain = 5 questions

Financial domain = 2 questions

Scoring and interpretation

Totally 25 questions were used to assess the anxiety level among family members of children undergoing orofacial cleft surgery. For each response the score ranged from a minimum of 1 to maximum of 4. The respondents were advised to put a tick mark on each statement.

The total anxiety score was 100 and it was graded as follows:

less than 25 = neutral

anxiety 26- 45 = mild anxiety

46 - 65 = moderate anxiety

66 - 85 = severe anxiety

more than 85 = panic anxiety

Content validity

For content validity, the scale used was approved by 3 experts including psychologists and pediatrician and appropriate modifications were made according to their suggestions.

The questionnaires were administered after obtaining written informed consent from the subjects. Approval and ethical clearance to conduct the study was obtained from the JMMC and RI. Confidentiality of information was maintained.

During data collection family members, who were having moderate to severe anxiety were consoled by showing before and after photographs of the children who had undergone orofacial cleft surgery^[5].

The data collected was analyzed in terms of descriptive statistics and inferential statistics in the basis of objectives of the study. Frequency, percentage, mean, standard deviation was used to assess the anxiety level, and Chi square test was used to determine the association of sociodemographic and clinical data variables on anxiety level of family members.

Ethical Considerations

Setting permission was obtained from the Director of Jubilee mission medical college and research institute. Clearance from the institutional ethics committee of jubilee Mission hospital was obtained. Permission was also obtained from the Chief Nursing Officer and Departmental Supervisors. Subjects were given assurance about the confidentiality of the data being collected and were asked to provide written informed consent.

III. Result

Section I

Table 1 (a): Socio demographic data of family members of orofacial cleft children
(n = 40)

Sociodemographic variable	Characteristics	Frequency	Percentage (%)
Age in years	20 – 30 years	8	20
	31 – 40 years	26	65
	>40 years	6	15
Sex	Male	14	35
	Female	26	65
	Others	0	0
Education	No formal education	1	2.5

	Primary education	1	2.5
	Secondary education	13	32.5
	Higher education	13	32.5
	Post graduation	12	30
Occupation	Government	3	7.5
	Private	13	32.5
	Self	6	15
	Daily wage	7	17.5
	Unemployed	11	27.5
Number of Children	One child	13	32.5
	Two children	11	27.5
	Three children	13	32.5
	>4 children	3	7.5
Primary care giver of the child	Mother	34	85
	Father	6	15
	Grandparents	0	0
	Relatives	0	0
Income	<5000/-	11	27.5
	5001 – 15000/-	10	25
	15001 – 35000/-	12	30
	>35001/-	7	17.5
Family history	Yes	6	15
	No	34	85
Any serious illness of caregiver	Yes	1	2.5
	No	39	97.5

Table 1 (a)

Table 1 (a) frequency and percentage distribution of age makes it evident that most of the family members, 26(65%) belong to the age group of 31- 40 years whereas the least, 6 (15 %) belong to 18- 38 years of age. Gender wise distribution shows that 26(65%) of the study subjects are females whereas the male counterparts are 14(35%) and 0(%) are others. Majority of family members are having secondary and higher secondary education, 13(32.5%) and most of them have private occupation, 13(32.5%). 12(30%) have an average family income between 15001 35000/-. 13(32.5%) have a single parent and three children and their primary caregiver was their mother, Majority of the subjects, 34(85%), do not have any previous family history of orofacial cleft, or any other serious illness, 39(97.5) in their family.

Data of child undergone orofacial cleft surgery

Table 1(b): Socio demographic data of children undergone orofacial cleft surgery.

(n= 40)

Variables	Characteristics	Frequency	Percentage(%)
Age	Infant	13	32.5
	Toddler	12	30
	Preschooler	2	5
	Schooler	13	32.5
Sex	Male	18	45
	Female	22	55
Birth order	First child	18	45
	Middle child	6	15
	Last child	16	40
Completion of at least one surgery	Yes	40	100
	No	0	0
Type of defect	Cleft lip	14	35
	Cleft palate	10	25
	Both	16	40
Previous surgical history of orofacial cleft	< 1 year	22	55
	1 – 2 year	5	12.5
	>2 year	13	32.5

Table 1(b) shows that most of the children are infants 13(32.5%) and schooler 13(32.5%) whereas the

least, 2(5%) are preschoolers. Gender wise distribution shows that 22(55%) are females and the rest are males. All the children had completed at least one surgery. 16(40%) of the children are having both cleft lip and cleft palate whereas 14(35%) are having cleft lip and 10(25%) having cleft palate. Majority of the children had undergone the surgery within 1 year 22(55%) and 5(12.5%) within 2 years and 13(32.5%) before 2 years.

Section II: Assessment of anxiety level of family members of children undergone orofacial cleft surgery using modified structured anxiety scale.

This section deals with the anxiety level of family members of children undergone orofacial cleft surgery. The anxiety level was graded as neutral (<25), mild (26-45), moderate(46-65), severe(66-85), panic(>85). The data was analyzed using descriptive statistics and presented in terms of frequency and percentage.

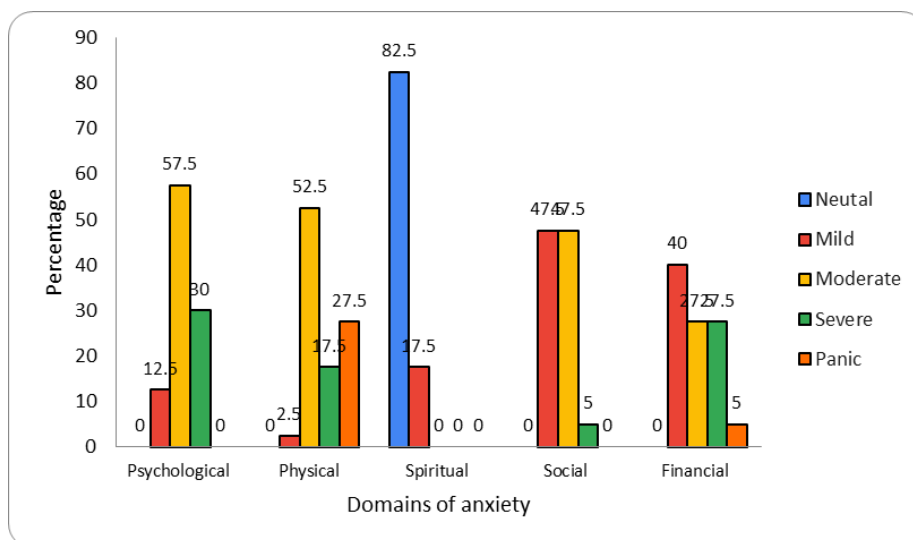


Figure 1: Graph of anxiety among family members of children undergone orofacial cleft surgery in psychological, physical, spiritual, social, financial domains. (n=40)

Figure 1 shows that psychological 23(57.5%) and physical 21(52.7%) domains had moderate anxiety and spiritual domain 33(82.5%). In social domain 19(47.5%) both mild and moderate anxiety is present and in the financial domain 16(40%) mild anxiety is present.

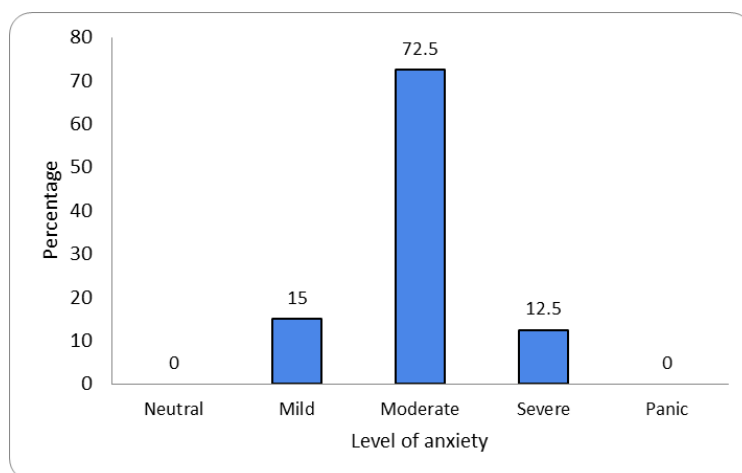


Figure 2: Overall anxiety of family members of children undergone orofacial cleft surgery. (n=40)

Figure 2:

The figure shows that 5(12.5%) of family members having severe anxiety, 29(72.5%) of family members having moderate anxiety and 6(15%) having mild anxiety and there was no panic neutral anxiety.

Section III: Association between sociodemographic and clinical data variables with anxiety level of family members of children undergone orofacial cleft surgery in JMMC&RI Thrissur.

Table 3(a): Chi square(χ^2), degree of freedom (df) and P-value of association of sex of the child with anxiety of family members of children undergone orofacial cleft surgery.

SI No	Sociodemographic variable	Mild		Moderate		df	P	X2
		f	%	f	%			
	Sex of the child					4.675a	1	0.04*
1	Male	18	100	0	0			
2	Female	17	77.3	5	22.7			

Table 3(a) shows that there was a significant association between female child and anxiety level of family members at *p <0.05.

IV. Discussion

To Assess of the anxiety level of family members of children who have undergone orofacial cleft surgery

The study found that 6(15%) family members have Mild Anxiety and 29(72.5%) have Moderate Anxiety and 5(12.5%) have Severe Anxiety. A component wise study out of 40 samples found that in the psychological domain, 23(57.5%) have moderate anxiety and in the physical domain 21(52.5%) have moderate anxiety. In the spiritual domain 33(82.5%) have neutral anxiety. In the social domain 19(47.5%) have mild anxiety and 19(47.5%) have moderate anxiety. In the financial domain,16(40%) have mild anxiety. These findings are in agreement with a descriptive study that was done in Plastic surgery OPD in Owaisi Hospital and Research Center affiliated to Deccan College of Medical Sciences Kanchanbagh, Hyderabad with study samples of 60 collected and interviewed using intake proforma and structured questionnaires (GHQ, HAM-A, HAM-D and WHOQOL Brief). Descriptive (mean, standard deviation, frequency and percentage) and inferential statistics were used for data analysis. The present study was conducted with an aim to determine the psychological status of mothers of cleft lip and palate children and to study the change in quality of life across different socio demographic variables using standardized interviews. In the study 33(55%) of the mothers have severe anxiety and 21(35%) have moderate anxiety and 6(10%) have mild anxiety.⁽³⁾

Parents of male children with orofacial cleft reported reduced anxiety as there would be development of facial hair such as mustache, which will improve their appearance. The mustache will cover the scar site and it becomes less noticeable.

To associate the anxiety level of family members of orofacial cleft children with selected sociodemographic and clinical data variables

There was a significant (p < 0.05) association between female child and anxiety level of family members of orofacial cleft. This indicates that anxiety level of family members with female orofacial child had increased. Therefore the researcher assumed family members of female children suffering with congenital anomalies need to get support and guidance was accepted. The study findings were supported by a descriptive study conducted among 60 mothers from Plastic surgery OPD in Owaisi Hospital and Research Center affiliated to Deccan College of Medical Sciences Kanchanbagh, Hyderabad.⁽³⁾ The present .study was conducted with an aim to determine the psychological status of mothers of cleft lip and palate children and to study the change in quality of life across different socio demographic variables using standardized interviews. The subjects were randomly assigned and after initial interview, sociodemographic data, education of mothers, employment status, living situations, social support, sex and age of the child, order of the child, type of pregnancy and family history of CLP were collected using an intake proforma. In total 60 mothers were included and interviewed using intake proforma and structured questionnaires (GHQ, HAM-A, HAM-D and WHOQOL brief). The data was analyzed and the study concluded that order of the child has a significant impact on the psychological status of mothers. Higher anxiety was found in the 1st order children when compared to that of the 2nd and further order children. Anxiety was higher in the mothers of the CLP child is a female when compared to that of the male CLP child. Anxiety was higher in mother’s if the child’s age is less than 3 months when compared to older children^[3]. Therefore the study revealed that anxiety was higher in the family members of the girl child than the male child.

Above mentioned findings in this study are in contrast with, “ pilot of mental health and quality-of-life of caregivers of children with cleft lip/palate in India” conducted by Gowda, Mahesh R.; Pai, Nagesh B.; Vella, Shae-Leigh C^[4]. Their study revealed that parent’s with younger children with cleft lip and palate were less adjusted and more distressed than their peers with older children with cleft lip and palate, without any association with the sex of the child.

Limitation

The study was conducted only for a population of 40 samples

The study was limited to the parents of children undergone orofacial cleft surgery up to the age of 10 years.

V. Recommendation

On the basis of the study that has been conducted certain suggestions are given for further recommendations which include, a similar study can be replicated with larger sample size, and the intervention based study for the relief of anxiety among family members of orofacial cleft children.

VI. Conclusion

The researcher conducted a descriptive study to assess the anxiety level of family members of children undergone orofacial cleft surgery in JMMC and RI, Thrissur. The study population was the family members of the children under 10 years who had undergone orofacial cleft surgery. The sample size was 40. The tool was divided into two sections. Section A, sociodemographic and clinical data variables of family members and children and section B, modified structured anxiety scale. The study concluded that the majority of family members have moderate anxiety 29(72.5%) and 6(15%) of family members have mild anxiety. Only 5(12.5%) of family members are having severe anxiety. There was significant association between sex of child and anxiety level of family members ($p= 0.040$), family members of female child have more anxiety (22.7%). Finally, it was concluded that majority of the family members of the children underwent the surgery are suffering from a moderate level of anxiety.

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Nil

Conflicts of interest

There are no conflicts of interest.

Reference

- [1]. Peter Mossey , Julian Little. Addressing The Challenge Of Cleft Lip And Palate In India Indian J Plast Surg .2009 Oct: 42 (Suppl):S9-S18.
- [2]. Center For Disease Control And Prevention. Available From: <https://www.cdc.gov/ncbddd/birthdefects/cleftlip.html>
- [3]. Hemanth Madhav Gajarao, Ramakrishna Podaralla. Indian Journal Of Psychiatry, Volume 57, Number 1, January-March 2015, Page No.S49
- [4]. Gowda, Mahesh R.; Pai, Nagesh B.1; Vella, Shae-Leigh C.1. A Pilot Study Of Mental Health And Quality-Of Life Of Caregivers Of Children With Cleft Lip/Palate In India. Indian Journal Of Psychiatry 55(2): P 167-169, Apr–Jun 2013. | DOI: 10.4103/0019-5545.111456
- [5]. <https://images.app.goo.gl/Amnb1plvxawe6lsw7>