

A Study to Assess the Psychological Issues Faced by Cleft Lip and Palate Patients: A Cross-Sectional Questionnaire Study

Medha Wadhwa^{1*} Pulkit Kalyan² Nirali Hathila³ Varsha Gadhavi⁴ Himanshu Shrivastav⁵

¹Assistant Professor, Department of Management, Sumandeep Vidyapeeth, Vadodara, Gujarat, India.

²Senior Lecturer, Department of Public Health Dentistry, Sumandeep Vidyapeeth, Vadodara, Gujarat, India.

³District Urban Program Coordinator, Health & family Welfare, Government of Gujarat, Gujarat, India.

⁴District Program Coordinator (Urban), District Mehsana, Health & Family Welfare, Government of Gujarat, Gujarat, India.

⁵Senior Lecturer, Department of Oral Pathology, Aditya Dental College, Beed, Maharashtra, India.

ABSTRACT

Introduction: The condition of cleft lip and palate (CLP) occurs when a facial structure improperly closes during the developmental phase. Parents often feel upset when they first see their baby with CLP, which creates significant emotional turmoil in parents. In the long run, CLP can disturb a child's overall psychological makeup by affecting one's self-esteem, social skills, and behaviors. Such behaviors often augment or create significant fall in their overall quality-of-life. The current study was undertaken to identify the predominance of behavioral problems (Depression, Anxiety and Stress) found in these children.

Materials and Methods: A descriptive cross sectional questionnaire study was carried out through Primary data collection directly from the patients and their parents at an NGO using close ended DASS21 questionnaire after converting in local language.

Result: The study established a relation between the various socio demographic factors that have a psychosocial impact. It was observed that female's depression, anxiety and stress level is at the extreme severe level as compared to their male counterparts whose depression, anxiety and stress level is at the severe.

Conclusion: The patients with cleft lip and palate they face extreme level of psychological stress and undergo severe depression and anxiety. These patients along with their parents should be given a lot of counseling and motivation before starting their treatment. This will in turn result in a well satisfied and happy patient with the better results.

Keywords: Cleft lip and Cleft Palate, Psychological issue, DASS.

INTRODUCTION

The developmental phase where the facial structure improperly closes leads to cleft lip and palate (CLP). This creates an emotional turmoil when the parents first see their baby, which also affects the child overall psychological status. This eventually affects their self-esteem, social skills and behavior. This lead to their inability to express their emotions with an increases psychological stress created due to various interpersonal or social factors like teasing and avoidance from peer and family members. This

belief of being socially incompetent or incapable which leads to natural reaction of either withdrawing them or becoming under expressive or over expressive. These are known as the internalizing or externalizing behavior of children.¹

This area of psychological issues remains an unexplored area; there are various studies that suggest a positive relation between conversions from internalizing to externalizing behavior as the age of the child progresses. Apart from the previous studies, the stress that these children undergo is

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*Correspondence Dr. Medha Wadhwa.

Department of Management, Sumandeep Vidyapeeth, Vadodara, Gujarat, India.

Email: drmedhakalyan@gmail.com

immense, especially in younger children. The problem of cleft lip and palate children starts with various distress which starts from feeding them to handing over their responsibility to others. The kind of embarrassment they have undergone during the initial period is often reported to be a black mark for many parents. The psychological stress undergone by these children affects their quality of life negatively. On the top, such behaviors often augment or create significant fall in their overall quality-of-life (QOL). Thus, this study was undertaken to identify the predominance of behavioral problems (Depression, Anxiety and Stress) found in these children.²

Objective:

- To assess the level of depression of the cleft lip and palate patients
- To assess the level of anxiety of the cleft lip and palate patients
- To assess the level of stress of the cleft lip and palate patients
- To assess the various socio demographic factors affecting the depression, anxiety and stress among the patients of cleft lip and palate.

MATERIALS AND METHODS

The study was Descriptive Cross sectional in nature and was conducted for 2 months at the MEDLIFE FOUNDATION, AHMEDABAD (Gujarat cleft & craniofacial deformities research institute) as the study tries to identify the psychological stress faced by the patients with cleft lip and palate. The psychological issues are addressed through a structured close ended questionnaire after taking the informed consent of parents & patients who were willing to participate. Primary Data was collected directly from the patient and their parents using close ended questionnaire DASS 21⁸ and socio-demographic data sheet after converting in local language. The ethical approval was taken for the study from the institutional ethics committee. A pilot study was conducted to check for the validity and reliability. The Cronbach's alpha value for this came out to be 0.89 indicating high level of reliability. The sample size comprised of 20 patients who signed the informed consent and willingly participated in the study. The patient's severity

level of depression, anxiety and stress analyzed according to the DASS scoring criteria was:

	Normal	Mild	Moderate	Severe	Very Severe
Depression	0-9	10-13	14-20	21-27	28+
Anxiety	0-7	8-9	10-14	15-19	20+
Stress	0-14	15-18	19-25	26-33	34+

The statistics used were Descriptive Statistics, Independent T test and ANOVA (Analysis of Variance) was used for data analysis after importing the data entered in Microsoft Excel using SPSS version 24. The results will be statistical significant with a p value of less than 0.05 at 95% confidence interval.

RESULTS

Table 1: Showing the frequency distribution of various parameters.

Parameters	Group	Number	%	Total
Gender	Male	14	70	20
	Female	6	30	
Attending School	Yes	6	30	20
	No	14	70	
Siblings	0	6	30	20
	1	2	10	
	2	9	45	
	<2	3	15	
Birth Order	First	10	50	20
	Second	8	40	
	Third	2	10	
Residence	Urban	10	50	20
	Rural	10	50	
Type Of Family	Nuclear	13	65	20
	Joint	7	35	
Medical History	Present	3	15	20
	Absent	17	85	

Table 1 of frequencies distribution shows that majority of patients are male. Amongst the sample of 20 patients, 50% were the first children, 40% were born second and 10% were born at the third order. There were 15% patients who have medical history while remaining 85% has no medical history.

Table 2: Showing Mean DASS Score.

Psychological Aspects	Mean
Depression	14.25±4.99
Anxiety	11.85±3.15
Stress	17.75±3.15

The mean DASS scores of patients indicated the extreme level of depression, anxiety and stress among the participants.

Table 3: shows that the mean DASS scores according to the Gender.

	Group	Mean	SD	Mean Difference	P Value	Confidence Interval	
						Lower	Upper
Depression	Male	12.8333	4.30891	-2.02381	.421	-7.18669	3.13907
	Female	14.8571	5.28943				
Anxiety	Male	11.6667	4.80278	-2.6190	.870	-3.57726	3.05345
	Female	11.9286	2.36852				
Stress	Male	16.8333	4.35507	-1.30952	.397	-4.48350	1.86445
	Female	18.1429	2.44600				

The table 3 shows the severity of stress among males is severe and in females it comes under the category of extremely severe. This difference is, however, insignificant (p value >0.05). The mean

difference of depression score is higher in females rather than males while both of them are in extreme severe category.

Table 4: Showing result of independent t test to see the difference between DASS score among the participants who are attending school and not attending school.

	Group	Mean	SD	Mean Difference	P Value	Confidence Interval	
						Lower	Upper
Depression	Attending School	16.6667	3.72380	3.45238	.162	-152125	8.42601
	Not Attending School	13.2143	5.22094				
Anxiety	Attending School	13.0000	5.82843	1.64286	.297	-1.57375	4.85947
	Not Attending School	11.3571	3.24884				
Stress	Attending School	20.3333	1.21106	3.69048	.010	1.01561	6.36534
	Not Attending School	16.6429	2.97702				

The above table shows that the severity of anxiety in participants who are attending school comes under the category of extremely severe and who are not attending school comes under the category of severe. This difference is however insignificant (p

value >0.05). There is a significant difference (p value< 0.05) in the depression between those children attending school as compared to those not attending school.

Table 5: shows the result of independent t test to see the difference between DASS score among the participants as accordance to their residence.

	Group	Mean	SD	Mean Difference	P Value	Confidence Interval	
						Lower	Upper
Depression	Urban	12.9000	5.66569	-2.70000	0.236	-7.33104	1.93103
	Rural	15.6000	4.06065				
Anxiety	Urban	11.10000	2.55821	-1.50000	0.299	-4.44878	1.44878

	Rural	12.6000	3.62706				
Stress	Urban	17.2000	3.29309	-1.10000	0.439	-4.01869	1.81869
	Rural	18.3000	2.90784				

The table shows that the level of depression, anxiety and stress scores difference according to the residency. The participants from rural areas show a high level of depression, anxiety and stress score as

compared to participants from urban residential areas. This difference is however insignificant (p value >0.05)

Table 6: shows the result of independent t test to see the difference between DASS score among the participants as accordance to their medical history.

	GROUP	MEAN	SD	Mean Difference	P VALUE	Confidence Interval	
						Lower	Upper
Depression	Present	16.6	4.50	2.84	0.37	-3.75	9.44
	Absent	13.8	5.07				
Anxiety	Present	11.0	2.64	-1.00	0.62	-5.22	3.22
	Absent	12.0	3.27				
Stress	Present	19.6	1.52	2.25	0.25	-1.74	6.25
	Absent	17.4	3.18				

This shows that the severity of stress in participants who have any significant medical history And participants who does not have any significant

medical history comes under the same category of extremely severe. The level of depression and stress is higher in the patients with medical history.

Table 7: Shows the result of independent t test to see the difference between DASS score among the participants as accordance to their type of family.

	Group	Mean	SD	MD	P Value	Confidence Interval	
						Lower	Lower
Depression	Nuclear	13.53	5.41	-2.32	.400	-6.98	2.91
	Joint	15.57	4.15				
Anxiety	Nuclear	11.15	2.73	-1.98	.185	-5.02	1.04
	Joint	13.14	3.67				
Stress	Nuclear	17.53	2.98	-0.60	.687	-3.70	2.49
	Joint	18.14	3.43				

This shows that the severity of stress level in both the group of participants comes under the same category of extremely severe indicating that

whether the participant comes from nuclear or joint family, the level of depression, anxiety and stress is insignificant.

Table 8: Shows ANOVA Which Is Used To Compare DASS Score Between the Birth Orders.

	Group	Mean S.Q	F	P Value	df
Depression	1 st Birth order	11.343	0.413	0.746	3
	2 nd Birth order				
	3 rd Birth order				
Anxiety	1 st Birth order	8.331	0.815	0.504	
	2 nd Birth order				
	3 rd Birth order				
Stress	1 st Birth order	0.083	0.007	0.999	
	2 nd Birth order				
	3 rd Birth order				

The mean square for birth order is 11.343 (depression) ,8.331 (anxiety) 0.083 (stress), Degree of freedom is 3 and p value is 0.746(depression),0.504(anxiety),0.999(stress)

respectively which indicates that there is no mean difference in depression, anxiety, stress scores as according to birth order.

Table 9: shows the results of ANOVA Which Is Used to Compare DASS Score between The Number of Siblings.

	Group	Mean Sq	F	P Value	DF
Depression	0	26.238	1.059	0.369	2
	1				
	2				
	<2				
Anxiety	0	2.415	0.229	0.798	
	1				
	2				
	<2				
Stress	0	11.875	1.294	0.300	
	1				
	2				
	<2				

The mean square for birth order is 26.238 (depression), 2.415(anxiety) 11.875 (stress) Degree of freedom is 2 and p value is 0.369(depression), 0.798(anxiety), 0.300(stress) respectively which indicates that there is no mean difference depression, anxiety, and stress scores as according to siblings. (p value > 0.05)

DISCUSSION

Thamilselvanet al (2016)^[1] revealed the relationship between internalizing and externalizing behavioral problems of cleft children and quality of life of parents. In recent study it has

been found that the level of depression, anxiety and stress is extreme in patients having cleft lip and palate which was being measured by DASS score. Wu et al (2008)^[3] found that the children with cleft lip and/or palate have more behavioral problems as compared to healthy individuals, where in, the males have higher behavioral problems as compared to females. While the present study reported that the level of depression, anxiety and stress is severe in male patients and extremely severe in female patients. Both the groups of patients irrespective of the gender are facing the

extreme severe or severe form of psychological problems.

Park et al (1996)^[4], who suggested that, as children having CLP are likely to undergo more treatment and more frequent clinic attendances, which affect their families more in terms of family function and their well-being. Drotar et al(1975)^[5]reported that parents of children with congenital conditions such as CL/P often experience distinctive challenges during the neonatal period for a variety of reasons that may include, but are not limited to, ambiguity with regard to the diagnosis and prognosis, emotional reactions and adjustments to the child's physical differences and subsequent management of their children's medical care. The present study also showed that the patients having medical history have extreme severe form of depression, anxiety and stress.

Dsouza et al (2009) ^[6] has concluded in his study that psychological and psychosocial factors have an effect on behavior of patients. In this study, similar approach was carried out in which different socio-demographical factors (age, gender, attending school, type of family, number of siblings, birth order of patients) were being compared to the DASS score to evaluate the psychological condition of patients and their families with respect to these factors.

Kathleen Hutchinson et al(2011)^[7] reported in their study that overall regardless of age, gender or culture individuals with cleft lip and palate have lower psychological development that individuals without cleft lip and palate. The present study shows that the overall depression, anxiety and stress of patients of cleft lip and palate is extremely severe which was being reported by DASS score.

CONCLUSION

The study makes an attempt in identifying the depression, anxiety and stress levels among the patients with cleft lip and palate using the **DASS 21** item questionnaire. The study established a relation between the various socio demographic factors that have a psychosocial impact on these patients. However, irrespective of the various socio-demographic factors considered the depression, anxiety and stress levels among these patients is at the severe and extreme severe level. In general

female's depression, anxiety and stress level is at the extreme severe level as compared to their male counterparts whose depression, anxiety and stress level is at the severe. This in addition to the tremendous social pressure these patients face from our society makes these individuals vulnerable. They face extreme level of psychological stress and undergo severe depression and anxiety. The patients with cleft lip and palate along with their parents should be given a lot of counseling and motivation before starting their treatment. This will help in boosting their self-esteem and confidence which would result in more heartily accepting the turmoil of the treatment and active participation from the parents and their children. This will in turn result in a well satisfied and happy patient with the better results.

CONFLICT OF INTEREST

No potential conflict of interest relevant to this article was reported.

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