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International Journal of Current Research
Vol. 10, Issue, 02, pp.66039-66042, February, 2018

INTERNATIONAL JOURNAL OF CURRENT RESEARCH

ISSN: 0975-833X

RESEARCH ARTICLE

ASSESSMENT OF PREFERENCE OF PEDODONTIST BY CLEFT LIP AND PALATE TEAM IN THE MULTIDISCIPLINARY APPROACH

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ARTICLE INFO

Article History:
Received 17th November, 2017
Received in revised form
08th December, 2017
Accepted 24th January, 2018
Published online 28th February, 2018

Key words:
Pedodontist,
Multidisciplinary Approach,
Cleft lip and Palate.

ABSTRACT

In India prevalence of oral clefts is as common as 1in 500 several cases and several centres for rehabilitation works round the clock to correct the congenital defect to almost as flawless as a normal child. The team effort involves transition from one speciality to the other and a Pedodontist who is well versed with child's overall knowledge and comprehensive management of child can be a major shareholder & coordinate among different cleft specialists.

Aim: To assess the preference of pedodontist by cleft lip and palate team in the multidisciplinary approach in Indian cleft centres.

Settings and Design: It's a cross sectional descriptive study design. Study was conducted in cleft lip and palate centres and all the specialist involved in the rehabilitation of cleft lip and palate were given a questionnaire to fill and it was also mailed for those who could not be reached personally.

Methods and Material: It was a questionnaire survey with a set of fourteen open ended and close ended questions. Questionnaires were distributed to all dental and medical professional's who were involved in rehabilitation of cleft lip palate. The filled questionnaires were collected and was later sent for statistical analysis.

Statistical analysis used: Analysis was done using SPSS vertion 16.0 for windows.

Results: Results of our study showed that among the complete oral rehabilitation procedures cleft lip and palate team preferred a Pedodontist for the following like behaviour management, parent counselling, restorations, pulp therapies, space management, and interceptive orthodontic procedures.

Conclusions: In our study Cleft lip and palate team preferred Pedodontist for the overall oral rehabilitation of deciduous dentition. Hence there is need for change in the existing trends which calls for an active training and participation of pedodontist in the comprehensive management of cleft lip and palate, this study highlights the fact, but in the present scenario there is lack of adequate participation of pedodontists in the management of cleft lip and palate which may be attributed to lack of training as well as motivation on the same.

Citation: Dr. Savitha Sathyaprasad, Dr. Vinodhini Jyothivelu J., Dr. Anjana, A. G., Dr. Sruthy, P. G. and Rekha, R. 2018. "Assessment of preference of edodontistby cleft lip and palate team in the multidisciplinary approach", *International Journal of Current Research*, 10, (02), 66039-66042.

INTRODUCTION

Clefts are among the most common congenital malformations worldwide. This severe birth defect occur one in 700-1000 newborn infants. Cleft lip and palate together account for 50% of all cases whereas isolated cleft lip and palate occur in about 25% of cases. Whenever a child is born with such defect, it interferes with feeding, speech and hampers esthetic severely. Consequently it is psychologically traumatic to both patients as well as for their family members (Abu-Hussein *et al*., 2015) The treatment of cleft lip and palate is initiated even before birth and continues up to adulthood, requiring the participation of an interdisciplinary team (Freitas *et al.,* 2012).

Children with CL and CP rarely escape dental and occlusal complications and are also at high risk for dental diseases. Affected individuals often presents with multiplicity of problems and effective management involves a repeated intervention of different specialists like plastic surgeon, pedodontist, orthodontist, prosthodontist, speech therapist, psychotherapist etc. Having a child with an oral cleft may also affect the psychological well-being of parents and patient in several ways. In addition to the parents' concern about the health and quality of life of their affected children, parents may become financially burdened and emotionally vulnerable which can lead to missing on the appointments and indefinitely affecting prognosis of the treatment (Nidey *et al.,* 2016). Few parents of such children are reluctant to let others meet them. Shunted practically by everyone, the children are doomed to life of social isolation nd deprivation, apart from medical and

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dental complications (Nagappan and John, 2015). The pediatric dentist is one of the constant entities of whose role starts from infancy through adolescence therefore their involvement in the management of cleft lip and palate is the most important aspect of rehabilitation. A child with cleft lip and palate will undergo a planned treatment protocol, which includes:

- Prenatal counselling
- Feeding advices
- Obturators
- Nasoalveolar moulding
- Premaxilla retraction
- Surgical repair of cleft lip and palate
- During mixed dentition period: orthodontic treatment, alveolar bone graft, implant, maxillary advancement, osteogenesis distraction, mandibular osteotomy after growth completion

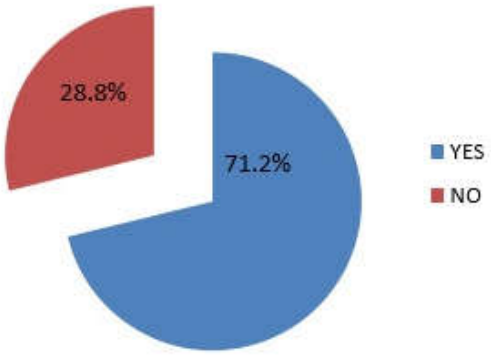
Since these children and their parents give more importance to the surgical correction of their clefts and neglect their dental health, they tend to have more decayed and missing teeth with poor gingival health and oral hygiene as compared to that of normal children. Hence Pedodontist should be trained in such a way to provide a complete oral rehabilitation as he is well versed in the aspects of behavioral management, child psychology and can thus provide an empathetic treatment for the child. However in the present scenario not many pedodontists are actively involved mainly due to lack of awareness or lack of training in few countries like India. So this study was carried out to evaluate the awareness among specialists of cleft lip and palate team regarding the role of pedodontist in the interdisciplinary management of cleft lip and palate. So this paper can be a initiating message to pedodontist to take much more involvement in comprehensive rehabilitation of cleft lip and palate.

Subjects and Methods

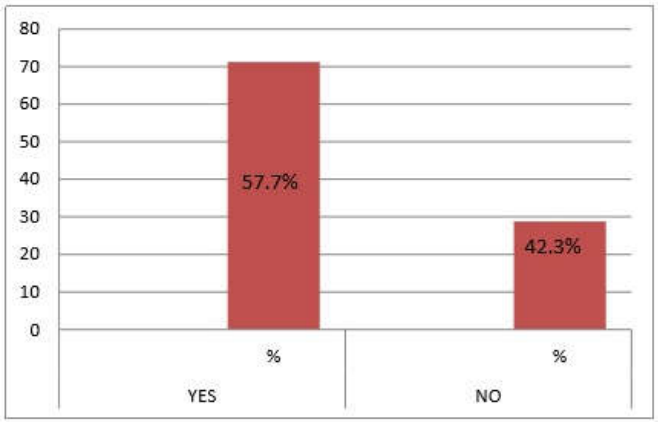
A questionnaire was designed to evaluate the preference of pedodontist by cleft lip and palate team in the comprehensive management, was responded by 104 specialists from cleft lip and palate rehabilitation centers. The question naires were given personally and was also sent through mail. It contained both open ended and close ended questions. Questionnaire contained questions to assess the perceptions of cleft lip and palate team regarding the involvement of Pedodontist in presurgical infant orthopoedics, procedures that are preferred to be done by Pedodontist and their overall opinion about the role of Pedodontist in the management of cleft lip and palate. Statistical analysis was done.

RESULTS

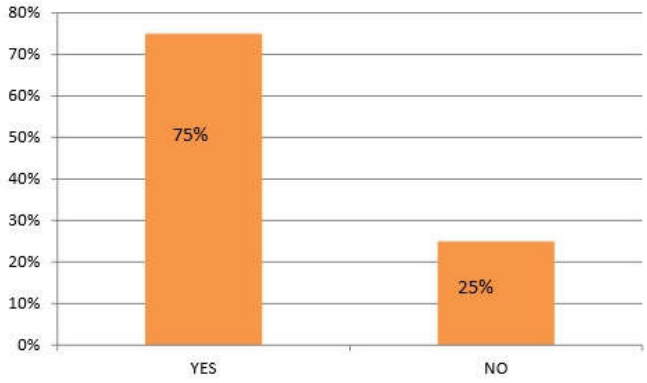
In our study we found that 28.8% of cleft lip and palate team were not aware that pedodontist were integral part of the comprehensive cleft lip and palate management and Among the complete oral rehabilitation procedures, parental counselling, behavior management, restorations, pulpectomy, space management, were preferred to be done by Pedodontist (graph 1) and 75% of them were interested to include trained pedodontist in the comprehensive cleft lip and palate management (Graph 2). Our study also showed that 57% preferred pedodontist to perform presurgical infant orthopedics procedures (Graph 3) the reason being lack of training that was emphasized.



Graph 1. Awareness of specialists that pedodontists were integral part of cleft lip and palate team



Graph 2. % of specialists preferring trained pedodontist to perform presurgical infant orthopaedics



Graph 3. % of specialists interested to include trained pedodontist in the comprehensive cleft lip and palate management

DISCUSSION

Cleft lip and palate (CLP) are among the most common congenital craniofacial malformations causing significant functional and aesthetic consequences. The treatment for patients with CLP is challenging because of the difficulties inherent in the skeletal discrepancy, bone deformity, multiple dental abnormalities,necessity ofinterdisciplinary involvement, and the needfor excellent patient cooperation. To maximize the treatment gains and obtain more consistent results, patients with cleft lip and palate should typically undergo a specific treatment protocol that includes not only primary lip and palatal repairs, but also presurgical infant orthopaedics, primary or secondary alveolar bone graft surgery, preventive

and therapeutic oral health care, speech therapy etc. Interdisciplinary treatment plans for these patients frequently extend over many years, starting with primary surgeries during infancy, pedodontist intervention, at least 1 stage of orthodontic treatment, and possible jaw surgery near the end of adolescence or early adulthood, which undoubtedly calls for multiple specialties and frequent appointments withan unanimous parent cooperation and coordination with the specialist. The pediatric dentist facilitates the integration and provision of advanced reparative surgery and complex dental treatment (Udin, 1986). As it's a multidisciplinary approach transfer of patient from one specialty to another should be done seamlessly such that further treatment is not hampered nor complicated, here is where Pediatric dentist play a vital role in guiding, intervening and coordinating the entire treatment protocol such that the treatment is carried out flawlessly. Jose alberto et al reported that development of the deciduous dentition in individuals with cleft lip and palate presents multiple intraoral problems like delayed eruption of teeth at the cleft side. The deciduous dentition may present alterations proportional to the extent of the cleft, with greater involvement in more extensive clefts, except for isolated cleft palate, in which the alveolar ridge integrity is maintained.

Thus, counselling and follow-up are important to maintain the integrity of teeth and the supporting bone structures. These findings support our study (Freitas *et al.,* 2012). Savitha emphasised the need for a complete involvement of pedodontist from prenatal diagnosis to adolescence period where he plays a pivotal role of being the main coordinator with all other specialties and can thus help the parent manage all appointments stage wise, so the parent will not miss out any treatment in the exact time, because timing of each treatment is very important and parents may not be aware of it for e.g. the timing of palate repair can affect the speech development if palate surgery is delayed, it also emphasized the importance of performing naso alveolar moulding at the early stages by taking advantage of presence of high estrogen and hyaluronic acid thereby reducing the cleft to a significant size before surgery (Sathyaprasad s. 2012). Abu Hussein *et al* reported that the pediatric dentist have a key role to play in providing continuing, high quality, preventive based dental care which is in agreement with our study. It is mandatory that these patients be followed up by a multidisciplinary team where the dentist plays an important role (Abu-Hussein *et al*., 2015). During primary dentition stage the treatment carried out mainly are adjustments in obturators, restoration of carious teeth, maintenance of oral hygiene and evaluating erupting dentition and facial growth. Jaju *et al* reported that 92% of the programs included the pediatric dentist in the multidisciplinary cleft palate team with the role extending from preventive, restorative to infant orthopaedics which is in par with our study (Jaju and Tate, 2009) Rakul reported that pedodontist plays a dual role in both improving the personal impact as well as improving the surgical outcome. They have a key role in providing continuing, high quality, preventive-based dental care (Kaul *et al.,* 2017) which is in accordance with our study where cleft team preferred pedodontist for providing preventive and interceptive oral health care needs like restorations, space management, fluoride therapy, pulp therapy. In our study cleft lip and palate team preferred Pediatric dentist to provide complete oral rehabilitation which includes restorations, space management, fluoride therapy, pulp therapy presurgical infant orthopoedics as they can apprehend a child's psychology and employ certain behavioural modification techniques when required and can thus provide an empathetic treatment.

Conclusion

- Cleft lip and palate team preferred Pediatric dentist for the overall oral rehabilitation of deciduous dentition, However many did opine that Pediatric dentist were not taking an active part in overall rehabilitation and there is a need for much more active training and participation in multiple intervention specially in procedures like presurgical infant orthopedics and as an active coordinator with other specialist so no treatment should go unattended in stipulated time as each treatment will affect the outcome of other, hence a committed pedodontist who can follow up all the appointments in time will be the need of the hour, As cleft lip and palate is diagnosed prenatally by a gynecologist through a MRI scan and it becomes a long journey of treatment like psychological counselling , surgeries, premaxillary orthopediecs, speech corrections, palatal lift appliances, orthodontic corrections due to postsurgical hypoplasia of maxilla due to contractions of palatal scars and mandibular prognathism,all these calls for an active participation of pediatric dentist right from prenatal period until adulthood.
- To conclude Pedodontists being well trained in application of child psychology and behavioral modification techniques can render total oral health care for children, and can thus provide an empathetic treatment to a neonate until adulthood, therefore they play an integral role in the multidisciplinary management of cleft lip and palate. So it is an obligatory need for the Pediatric dentist to actively involve more in cleft lip and palate rehabilitation.
- Within the limitations of the study the results reflect the fact that there is an absolute dearth of pedodontists involvement in cleft rehabilitation and this is more of an eye-opener and a wakeup call for all pedododntist to train themselves and become an integral part of the team specially with NAM.

REFERENCES

Abu-Hussein M., Watted N., Emodi O., and Zere E. Role of Pediatric Dentist-Orthodontic In Cleft Lip and Cleft Palate Patients. Population (ie, all cases of cleft including other birth defects versus cases of isolated cleft).;1:2.

Freitas J.A., Garib D.G., Oliveira M, Lauris R.D., Almeida A.L., Neves L.T., Trindade-Suedam I.K., Yaedú R.Y., Soares S and Pinto J.H., 2012. Rehabilitative treatment of cleft lip and p+alate: experience of the Hospital for Rehabilitation of Craniofacial Anomalies-USP (HRAC-USP)-Part 2: *Pediatric Dentistry and Orthodontics*. *Journal of Applied Oral Science*, Apr; 20(2):268-81.

Freitas J.A., Garib D.G., Oliveira M, Lauris R.D., Almeida A.L., Neves L.T., Trindade-Suedam I.K., Yaedú R.Y., Soares S and Pinto J.H. 2012. Rehabilitative treatment of cleft lip and palate: experience of the Hospital for Rehabilitation of Craniofacial Anomalies-USP (HRAC-USP)-Part 2: Pediatric Dentistry and Orthodontics. *Journal of Applied Oral Science*, Apr; 20(2):268-81.

Jaju, R. and Tate, A.R. 2009. The role of pediatric dentistry in multidisciplinary cleft palate teams at advanced pediatric dental residency programs. *Pediatr Dent*, 31:188-92.

Kaul, R. Jain, P. Saha, S and Sarkar, S. 2017. Cleft lip and cleft palate: Role of a pediatric dentist in its management. *International Journal of Pedodontic Rehabilitation*, Jan 1;2(1):1.

Nagappan, N. and John, J. 2015. Oral hygiene and dental caries status among patients with cleft lip, cleft palate and cleft lip, alveolus and palate in Chennai, *India. Journal of Cleft Lip Palate and Craniofacial Anomalies*, Jan 1;2(1):49.

Nidey N, Moreno Uribe, L.M., Marazita, M.M. and Wehby G.L. 2016. Psychosocial well-being of parents of children with oral clefts. Child: *Care, health and development*, Jan 1;42(1):42-50.

Sathyaprasad, S. 2012. Comprehensive Oral Rehabilitation of Cleft lip and Palate patients. *International Journal of Current Research and Review*.

Udin R.D. 1986. The pediatric dentist and the craniofacial anomalies team. *Ear Nose Throat J*, 65:305-10

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