

KNOWLEDGE AND PERCEPTION OF NEW GRADUATES ON TREATING PATIENTS WITH SPECIAL NEEDS IN DENTISTRY: AN ORIGINAL RESEARCH

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Abstract

Aim: The purpose of the present research was to assess the knowledge, perception of new dental graduates about treating specially abled patients.

Methodology: A cross-sectional study was conducted among a conveniently sampled 45 new dental professionals from the same institution who were both private dental practitioners. Participants were interviewed through a validated questionnaire, which consisted of 14 items. The questionnaire comprised demographic details of the participants, their years of dental experience, disabled patients they had encountered so far in their practice, and questions related to their attitude, perception, and practice to provide oral health care for patients with special needs. Informed consent was obtained from the participants prior to the study. The data obtained were entered into Microsoft Excel 2010 and descriptive statistics was computed using the SPSS Statistics for Windows, Version 25.0. Armonk, NY: IBM Corp.

Results: A response of 71% was obtained. Majority of the dentists (65%) were unaware of the Right to Disability Act. Half of the dentists (50%) felt teledentistry would do more good to people with special needs. About (31.8%) of them felt inadequate training to handle patients with special needs as major barrier faced while treating them.

Conclusion: Majority of the study participants felt inadequate training among the dental practitioners as barrier to treat special needs patients and hence suggested incorporation of special care dentistry into the dental curriculum.

Keywords: Awareness, disability, oral health care.

INTRODUCTION

According to the World Health Organization estimates, individuals with disabilities comprise 10% of the population in developed countries and 12% of the population in developing countries.¹ Disability is defined as “any physical, developmental, mental, sensory, behavioral, cognitive, or emotional impairment or limiting condition that requires medical management, health-care intervention, and/or use of specialized services or programs.”² Health-care structure in India is overburdened by an ever-increasing population. In India, 2.21% of the population, approximately 26.8 million people have some form of disability.³ Health care for individuals with special needs requires specialized knowledge and additional training among the health professionals.¹ Numerous studies have repeatedly confirmed that the people with disability still face considerable difficulties and obstacles in accessing medical and dental care services despite the attempts of barrier-free environment to them at legal regulation.⁴ Dental care is found to be the most common unmet health-care need for the differently-abled children. Their oral health may be neglected because of focus on their disabling condition, other major diseases, or limited access to oral health care. Moreover, dental care is sought by them only on an emergency basis.⁵ For children with disabilities, the effect of dental disease on their general health and function appears greater than for similar groups without a disability. They are at greater risk for poorer oral health than persons in the general population, due to more frequent oral infections and periodontal disease, enamel irregularities, moderate-to-severe malocclusion, and craniofacial birth defects.⁶ The understanding of the barriers that prevent persons with a disability from seeking dental care is essential in designing remedies to overcome these barriers.⁷ The difficulty in access to dental health care is explained not only by their physical condition but also by the inadequacy of trained dentists to treat them and lack of awareness among parents or caretakers regarding oral health care.⁸ This is broadly due to their attitudes and interest in acquiring knowledge in treating such patients. Although many of the barriers to dental care may not seem amenable to intervention, the attitude of a dentist toward this population can be assessed as a first step to improve access to oral care among the disabled population. Special Needs Dentistry (SND) involves managing oral health care in those with intellectual disabilities, medical, physical, or psychiatric conditions. Special methods or techniques for prevention and treatment of oral health necessitates special dental treatment plans, methods, and technique modifications.⁹ Despite realizing the role of education to prepare the profession to meet the current and future challenges in providing care for individuals with special health care needs (SHCN) many dental schools are still not providing adequate training for the management of this patient group. Students reported insufficient training and expressed concerns over the need for increased didactic teaching and clinical preparation in the care of individuals with SHCN at undergraduate level.¹⁰ Therefore, it is essential to determine the students’ perception of their educational experience in SND to assess the efficacy of current teaching and training at undergraduate level. This would then allow the identification of areas in the curriculum that may need to be improved on to increase the awareness and comfort levels of students in this field.

AIM OF THE PRESENT STUDY

The purpose of the present research was to assess the knowledge, perception of new dental graduates about treating specially abled patients.

METHODOLOGY

A study was conducted to assess the attitude and practices toward treating patients with special care need among 45 private dental practitioners. The study was approved by the Institutional Review Board. A verbal consent was obtained from the participants, and convenient sampling method was used to recruit participants for this study. The questionnaire consisted of 14 items which had demographic details, and three domains on knowledge (4 questions), attitude (5 questions), and practice (2 questions) about treating patients with disabilities. The data were obtained and entered into a Microsoft Excel spreadsheet and analyzed using the IBM Corp. Released 2011. IBM SPSS Statistics for Windows, Version 25.0.

RESULTS

Among the 45 new dental practitioners to whom the questionnaire was administered, 32 of them returned the paper-based survey which had a response rate of (71.1%). The demographic data comprised of an equal number of male and female participants, and all of them held a minimum of 1-2 years of practice in dentistry. (Table 1) When asked about the type of patients with special health care needs visiting their clinics, 18 (56%) of the dentist reported medically compromised were the type of patients they frequently encountered. Majority of the participants 21 (65.6%) were unaware of the Right to Disability Act 2016. More than half of the participants (81.3%) felt the need to incorporate special care dentistry as a part of the dental curriculum and about 16 (50%) of the participants felt that teledentistry would do more good to patients with special needs, as they were more cost-effective than regular dental examinations. Only 18 (65%) of the participants felt a need for the decrease in disparities between special needs patients and patients without special health care needs for access to oral health. Twenty-two (68.7%) of the participants felt inadequate training among the dental professionals as one of the major barrier in treating patients with special needs. Around 3 (10%) of the participants did not feel the need of dental insurance for patients with special needs. When questioned about the treatment plan for these patients, 9 (28.3%) of the dental practitioners reported that they were comfortable in delivering simple dental procedures. Almost half of the participants had facilities like ramps/modified restrooms and lift facilities at their private dental clinics. (Table 2)

DISCUSSION

The poorer oral health conditions among people with SHCN in comparison with the general population are related to a number of factors that may impact on their oral health.¹¹ Barriers to obtaining accessible oral health care services was one of the most quoted factors that limits the accomplishment and maintenance of non-compromised oral health for this group of patients.¹² Developing personal skills is one of the key spheres of action underlined in the Ottawa Charter for Health Promotion (WHO 1984) which emphasises the integration of the cross-sectional approach to achieve improvements in general and oral health.¹³ Professionals working with people with disabilities carry a duty of care to treat them with dignity and respect, including the removal of any barriers and discrimination so that patients are able to obtain equitable access into the healthcare system. However, oral health inequalities affecting patients with SHCN have been reported.¹⁴ One of the issues raised was the limitation in the number of available dentists willing to provide care for this group of patients.¹⁵ Dentists were also perceived by patients and carers to be incompetent or reluctant to perform satisfactory levels of dental care, had inadequate knowledge in dealing with complex medical conditions and oral health care needs, as well as demonstrating poor communication skills.¹⁶ The present study revealed that (70%) of the dentists reported that they had encountered <3 special needs patients every month in their practice, which was similar to the results of Adyanthaya et al. 2017.⁸ The results showed that only (65%) of the practitioners wanted to eliminate the disparity in dental care delivered to children with and without special needs. This finding was similar to the conclusion made by Bindal et al. in 2015.¹⁷ The majority of the professionals (68.7%) stated that the barrier faced in managing patients with special needs was inadequate training, which is in accordance with study done by Rao et al. in 2003¹⁸ but was contrasting to the findings that (60%) of them reported to have adequate knowledge in managing these patients. These results reinforce the findings of Casamassimo et al. in 2012¹⁹ who stated that dentists who had not been exposed to hands-on and lecture were less likely to care for these patients. Apart from inadequate training among dental practitioners, (3.10%) of the participants felt inadequately motivated caretakers to be a relevant barrier. This observation was similar to that of findings conducted by Vignehsa et al., in 1991,²⁰ and it was higher (20.8%) in the study reported by Adyanthaya et al. 2017. Majority of the practicing dentists (31.3%) preferred treating their patients with special health care needs under GA, which was higher when compared to the findings (17%) reported by Adyanthaya et al. in 2017.⁸

CONCLUSION

Since inadequate training among the dentist is considered as major barrier in treating these patients, more training sessions must be conducted to modify the current dental curriculum at undergraduate level to increase the exposure of dental students to special cases at earlier stages of their career.

REFERENCES

1. Altun C, Guven G, Akgun OM, Akkurt MD, Basak F, Akbulut E, *et al.* Oral health status of disabled individuals attending special schools. *Eur J Dent* 2010;4:361-6.
2. American Academy of Pediatric Dentistry Council on Clinical Affairs. Definition of special health care needs (AAPDRM). *Pediatr Dent* 2014;40:237-42.
3. Hennequin M, Faulks D, Roux D. Accuracy of estimation of dental treatment need in special care patients. *J Dent* 2000;28:131-6.
4. American Academy of Pediatric Dentistry. Symposium on lifetime oral health care for patients with special needs. *Pediatr Dent* 2007;29:92-152.
5. Shawky S, Abalkhail B, Soliman N. An epidemiological study of childhood disability in Jeddah, Saudi Arabia. *Paediatr Perinat Epidemiol* 2002;16:61-6.
6. Smith G, Rooney Y, Nunn J. Provision of dental care for special care patients: The view of Irish dentists in the republic of Ireland. *J Ir Dent Assoc* 2010;56:80-4.
7. Salama FS, Kebriaei A, Durham T. Oral care for special needs patients: A survey of Nebraska general dentists. *Pediatr Dent* 2011;33:409-14.
8. Adyanthaya A, Sreelakshmi N, Ismail S, Raheema M. Barriers to dental care for children with special needs: General dentists' perception in Kerala, India. *J Indian Soc Pedod Prev Dent* 2017;35:216-22.
9. Ettinger RL, Chalmers J, Frenkel H. Dentistry for persons with special needs: how should it be recognized? *J Dent Educ* 2004; 68: 803-806.
10. Weil TN, Inglehart MR. Dental education and dentists' attitudes and behavior concerning patients with autism. *J Dent Educ* 2010;74: 1294-1307.
11. Stiefel DJ. Dental care consideration for disabled adults. *Spec Care Dentist* 2002; 22: 26s-39s.
12. Pradhan A, Slade GD, Spencer AJ. Access to dental care among adults with physical and intellectual disabilities: residence factors. *Aust Dent J* 2009; 54: 204-211.
13. World Health Organization. The Ottawa charter for health promotion. Geneva: World Health Organization, 1986.
14. Baird WO, McGrother C, Abrams KR, Dugmore C, Jackson RJ. Access to dental services for people with a physical disability: a survey of general dental practitioners in Leicestershire, UK. *Community Dent Health* 2008; 25: 248-252.
15. Paley GA, Slack-Smith L, O'Grady M. Oral health care issues in aged care facilities in Western Australia resident and family caregiver views. *Gerodontology* 2009; 26: 97-104.
16. Reichard A, Turnbull HR, Turnbull AP. Perspectives of dentists, families and case managers on dental care for individuals with developmental disabilities in Kansas. *Ment Retard* 2001; 39: 268-285.
17. Bindal P, Lin CW, Bindal U, Safi SZ, Zainuddin Z, Lionel A. Dental treatment and special needs patients (SNPs): Dentist's point of view in selected cities of Malaysia. *Biomed Res* 2015;26:152-6.
18. Rao D, Hegde A, Munshi AK. Periodontal status of disabled children in South Canara, Karnataka. *J Indian Dent Assoc* 2003;74:559-62.
19. Casamassimo PS, Seale NS, Ruehs K. General dentists' perceptions of educational and treatment issues affecting access to care for children with special health care needs. *J Dent Educ* 2004;68:23-8.
20. Vignehsa H, Soh G, Lo GL, Chellappah NK. Dental health of disabled children in Singapore. *Aust Dent J* 1991;36:151-6.

TABLES

Table 1- Demographic characteristics of the participants

Characteristic variable	Frequency, <i>n</i> (%)
Gender	
Male	16 (50)
Female	16 (50)
Type of disability encountered during practice	
Physically challenged	3 (11.8)
Mentally challenged	5 (17.3)
Medically compromised	18 (56.3)
Not answered	6 (15.6)

Table 2- Responses of the participants to the questions

Questions to dental practitioners	Dentist's response	
	Yes, <i>n</i> (%)	No, <i>n</i> (%)
Awareness of disabilities act 1995, bill 2014	11 (34.4)	21 (65.6)
Need to incorporate in curriculum and training	26 (81.8)	6 (18.7)
Perceived barriers - inadequate training	22 (68.7)	10 (31.3)
Preferred modality of care - OHI	24 (75)	8 (28.1)
Need for teledentistry	16 (50)	16 (50)
Presence of infrastructure - ramps/lift	16 (50)	16 (50)
Need for dental insurance	29 (90.6)	3 (9.37)

* OHI – Other health insurance