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ATTITUDES TOWORDS PERIODONRAL TREATMENT AMONG RURAL POPULATION IN UTTARPRADESH – A QUESTIONNAIRE SURVEY

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ABSTRACTS

Background: Periodontal disease is associated with both oral and systemic health but maintaining the good oral and periodontal health somehow has not been a big concerned for society., especially in rural areas.

Aims: The aim of present study was to assessed the attitudes towards the periodontal treatment among rural population in Uttarpradesh.

Materials & methods: Total 500 participants are taken in the study. A questionnaire Performa was given to the study participants which have total 12 questions to evaluate their knowledge, perception and attitude towards various kind of management both non-surgical and surgical periodontal therapy and methods to improve knowledge.

Results: Results showed rural peoples especially older and middle age group subjects have low level of awareness of periodontal treatment and their attitude towards treatment also not satisfactory.

Conclusion: The clinical data showed that the patients' compliance and attitudes on periodontal therapy was not sufficient. There is need dental eduction programs at vast level especially in rural areas.

INTRODUCTION

The term "periodontitis" refers to an inflammatory condition affecting the tissues that support teeth. It is mostly caused by one or more particular bacteria, which can lead to recession, increased probing depth development, or gradual loss of the alveolar bone and periodontal ligament.[1] One important threatening issue to periodontal and oral health is periodontitis.[2] It

is a persistent, infectious, extensively distributed, and very frequent periodontium illness with several causative causes.[3] There are over 800 different kinds of bacteria in the oral environment. The development and clinical manifestations of periodontal disease are mostly caused by the interaction between those microorganisms and the human immune system in tooth plaque.[4] Worldwide, periodontitis affects 20–50% of the population. Overall, 51% of Indians had periodontitis; for gingivitis, mild to moderate periodontitis, and severe periodontitis, the rates were 46.6%, 26.2%, and 19%, respectively.[5] Both the frequency and severity of periodontitis increased with age.[6,7] Patients who are knowledgeable about oral health care practices typically follow their treatment plans more regularly.[6-8]

Patient compliance is linked to the effectiveness of supportive, surgical, and nonsurgical periodontal care. The mindset of the patient, their want to keep their natural teeth, and their ability to practise proper dental hygiene all play a significant role in their prognosis.[9] Unlike endodontic lesions, periodontal lesions are started painlessly.[10] Thus, Due to the painless nature of the condition and a lack of understanding, periodontal therapy is often viewed as unnecessary, which might make patients less likely to comply with treatment recommendations. Due to such lack of awareness of in respect to periodontal disease and treatment, conducting this study with aim to assess the attitudes towards periodontal treatment among rural population in Uttarpradesh.

Materials and methods

The present questionnaire survey was conducted among rural population who visited out-patient department at Rama Dental College Hospital and Research Centre, Kanpur. Ethical clearance has been taken by institutional ethical committee. The study comprised a total of 500 subjects, were divided into three age groups: young (aged 18–35), middle (aged 36–55), and older (aged 55 and beyond). The entire number of survey participants was assigned to each category based on their age. We acquired informed permission from each individual.

Inclusion criteria

- Age group included ≥ 18yrs.
- Subjects should be Systemically healthy.
- at least > 10 natural teeth present in oral cavity in each patient.

Exclusion criteria

- Patients with mental retardation.
- Individuals with parafunctional behaviours.
- Uncooperative patients.

The proforma for the questionnaire, which included 28 questions and a brief case history, was presented to the participants in both Hindi and English. The goal of the study was also described. Data was analysed using the software MS Office Excel software & SPSS 23 for Windows.

Results

In table I, A Uniform distribution of the three age groups i.e., young aged 18-35 yrs., middle-aged 36-55 yrs. and older-aged adult >55 yrs. were present among the all subjects with 34%, 33% and 33% proportion respectively. In table II, most of the subjects who knows that pyorrhoea can be treatable were young adults (74.11%). The significant association of knowledge about pyorrhoea can be treatable was found with age of subjects ($p<0.001$). Most of the subjects who knows that 'pyorrhoea can be treatable by' and 'Gingival growth can be treated by' were young adults. Most of the subjects who knows that "bone around the tooth can be regenerate" and "Receding gums can be treated" were young adults. The significant association of knowledge about 'receding gums can be treated' was found with age of subjects ($p<0.001$). 65.9 % young adult knows that periodontal surgery done by LASER. The significant association of knowledge about 'LASER can also be used for periodontal surgery' was found with age of subjects ($p<0.001$).

In, Table II (85.3%) young adult subjects who knows need to visit the dentist for bleeding gums but older aged patients have lower level of knowledge. (9.7%) Maximum of the subjects who believe that cleaning of tooth causes loss of enamel were middle and older aged adults (>75%).

The significant association of belief that cleaning of tooth causes loss of enamel was found with age of subjects ($p<0.001$). Maximum of the subjects who knows professional teeth cleaning is necessary to prevent gum diseases were young adults (65.5%). The significant association of knowledge of professional teeth cleaning is necessary to prevent gum diseases was found with age of subjects ($p=0.026$). but Maximum of the subjects who knows cleaning of root along with teeth is beneficial to treat pyorrhoea were young adults (13.5%). Older age

subjects believe gum surgeries are painful and complicated (7.3%). No significant association of belief that Periodontal treatment is cost effective was found with age of subjects (p=0.084).

Discussion

In our study, we found a deficiency in knowledge and awareness about treatment in all aspect in study population. But in older group is very deficient in compare to young amd middle age group. Results of present study are in favor with the study done by Deinzer et al.[11] In 2009 [12]. They evaluated knowledge related to on a periodontal disease and oral hygiene habits on targeted population and observed the extreme low level of understanding regarding to knowledge in relation to periodontal disease and its prevention. They also didn't find any particular relation between age and education of individuals and their periodontal awareness, however young -aged and older- aged individuals have more deficits.

To achieve and sustain a high degree of oral hygiene, patients' perceptions and assessments of their own periodontal health, as well as motivation for preventative actions, are necessary. Oral health awareness, although not always associated with patients's motivation towards periodontal treatment, but still used as for measuring the treatment needs of individuals. Periodontitis may also one potential cause of systemic inflammation that affects general health is periodontitis. Studies reported that most participants have a good level of awareness towards periodontal disease, but a small portion of the population still lacks a thorough comprehension of the nature and aetiology of these disorders. However, as level of knowledge and awareness towards periodontal disease increased among population, their attitude towards periodontal therapy would also be improved.[12]

M. Gholami et al.[13] 2011 conducted a cross-sectional face-to-face interview study comprising 791 persons aged 18–50 years, was undertaken in Tehran to evaluate the knowledge and attitudes of the population about periodontal health. The definition of dental plaque had the lowest number of right responses (11.6%), while the role of dental visits in prevention had the highest percentage (92.8%). Higher economic position, female sex, and university education were all substantially linked to a higher mean periodontal health knowledge score. The findings revealed that Iranian people had a generally good attitude towards and a strong respect for periodontal health, despite having low periodontal knowledge. Causes and associated clinical finding of periodontal disease should be highlighted during oral Health education programmes.

Using a questionnaire survey, Bhatia et al.[8] evaluated patients' perceptions of their periodontal diseases, attitudes towards oral health and expectations for treatment, and awareness of the relationship between oral and systemic diseases. The majority of the female participants in this randomised trial visit to the dentist once or twice in their lives, and around 71.6% of them expressed fear to periodontal treatment. Since 42.5% of women and 72% of men are less literate in this area, 76.6% of the female participants hold the belief that scaling results in tooth mobility. This fear prevents the majority of ladies from receiving periodontal treatment. Merely 11.2% of men and 45% of women in the whole group reported experiencing pain or discomfort during periodontal treatment. The study's findings indicated that women (65%) are more anxious than men (42.4%) regarding periodontal therapy. They came to the conclusion that patient-centered oral health assessments play a critical role in periodontal treatment, as evidenced by the strong correlations that were discovered between specific self-care behaviours and dental cleanliness levels.

The research population comprised 216 patients, aged 20-44, who visited the outpatient department of M.S. Ramaiah Dental College, Bangalore, according to Nagarajan and Pushpanjali.[14] The study population completed a self-administered questionnaire that included inquiries about loose teeth, bleeding gums, deposits on teeth, receding gums, and swelling of the gums. A periodontal examination was then performed. The study's findings demonstrated that the awareness of the periodontal disease increased with increasing the severity of the disease because as the stage of periodontitis advances, destructive changes increased.

We found in our study rural peoples especially older and middle age group subjects have low level of awareness of periodontal treatment and their attitude towards treatment also not satisfactory. Therefore, there is a urgent need to educate patients for early treatment of periodontal disease to prevent the periodontal disease at initial stages.

Conclusion

In light of the current study's limitations, it can be said that patients' understanding and awareness of the causes of periodontal disorders is restricted. Rural patients might be deemed to have a sufficient fundamental understanding of oral health. Furthermore, a lot of patients are unaware of the extra oral care tools. In addition, the clinical data gathered shows that the patients' oral habits and attitudes on periodontal therapy do not align with their assessed

periodontal knowledge. Therefore there is still a need of more awareness program and camps to reinforce knowledge and awareness among peoples regarding these periodontal treatment.

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Variable		No.	%
Age	Young Adults (18–35yrs)	170	34.0%
	Middle-Aged Adults (36–55 Years)	165	33.0%
	Older Adults (Older Than 55 Years)	165	33.0%

Table I: distribution of subjects according to age and sex

Variable		Young Adults (18–35yrs) N=170		Middle-Aged Adults (36–55 Years) N=165		Older Adults (Older Than 55 Years) N=165		chi sq	p-value
		No.	%	No.	%	No.	%		
KA1 : pyorrhea can be treatable	Yes	126	74.11%	82	49.7%	35	21.2%	107.84	<0.001
	No	32	18.82%	45	27.3%	99	60.0%		
	Don't know	12	7.05%	38	23.0%	31	18.8%		
KA2 : Pyorrhea can be treated by	Cleaning of tooth, roots of tooth and surgeries	102	60.0%	38	23.0%	8	4.8%	129.45	<0.001
	Cleaning of tooth roots	50	29.4%	74	44.9%	107	64.8%		
	By placement of bone grafts	10	5.9%	34	20.6%	30	18.2%		
	Don't know	8	4.7%	19	11.5%	20	12.1%		
KA3 : Gingival growth can be treated by	Drugs	71	41.8%	102	61.8%	104	63.0%	67.01	<0.001
	Scaling	45	26.4%	44	26.7%	59	35.8%		
	Surgical removal	54	31.8%	19	11.5%	2	1.2%		
KA4 : bone around the tooth can be regenerated	Yes	65	38.3%	38	23.0%	22	13.3%	26.81	<0.001
	No	85	50.0%	101	61.3%	113	68.5%		
	Don't know	20	11.7%	26	15.7%	30	18.2%		
KA5 : receding gums can be treated	Yes	97	57.2%	37	22.5%	18	10.9%	94.07	<0.001
	No	47	27.5%	91	55.2%	113	68.5%		
	Don't know	26	15.3%	40	24.3%	34	20.6%		
KA6 : LASER can also be used for periodontal surgery	Yes	112	65.9%	35	21.2%	17	10.3%	137.40	<0.001
	No	49	28.8%	90	54.5%	114	69.1%		
	Don't know	9	5.3%	40	24.3%	34	20.6%		

Table II: Association Of Knowledge and Awareness Towards Periodontal Disease Treatment With Age

Table III: Association of attitude towards non-surgical and surgical treatment of periodontal disease with Age

Variable		Young Adults (18–35yrs) N=170		Middle-Aged Adults (36–55 Years) N=165		Older Adults (Older Than 55 Years) N=165		chi sq	p-value
		No.	%	No.	%	No.	%		
A1: need to visit the dentist for bleeding gums	Yes	145	85.3%	86	52.1%	16	9.7%	211.16	<0.001
	No	16	9.4%	43	26.0%	115	69.7%		
	Don't know	9	5.3%	36	21.8%	34	20.6%		
A2: cleaning of tooth causes loss of enamel	Yes	53	31.2%	124	75.2%	125	75.8%	122.00	<0.001
	No	102	60.0%	26	15.8%	20	12.1%		
	Don't know	15	8.8%	15	9.0%	20	12.1%		
A3: professional teeth cleaning is necessary to prevent gum diseases	Yes	110	64.7%	86	52.1%	80	48.5%	11.01	0.026
	No	45	26.5%	60	36.4%	67	40.6%		
	Don't know	15	8.8%	19	11.5%	18	10.9%		
A4: cleaning of root along with teeth is beneficial to treat pyorrhea	Yes	23	13.5%	2	1.2%	3	1.8%	33.03	<0.001
	No	23	13.5%	16	9.7%	16	9.7%		
	Don't know	124	73.0%	147	89.1%	146	88.5%		
A5: gum surgeries are painful and complicated	Yes	42	24.7%	52	31.5%	66	40.0%	20.49	<0.001
	No	23	13.5%	10	6.1%	3	1.8%		
	Don't know	105	61.8%	103	62.4%	96	58.2%		
A6: Periodontal treatment is cost effective	Yes	9	5.3%	5	3.03%	12	7.3%	8.21	0.084
	No	7	4.1%	2	1.21%	1	.6%		
	Don't know	154	90.6%	158	95.76%	152	92.1%		

Table III: Association Of Attitude Towords Non-Surgical Periodontal Disease Treatment With Age