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Original Research Article

Chief Complaints of Patients Seeking Treatment for Periodontal Diseases

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Conflict of interest: Nil

Abstract:

Objectives:

1. What was the gingival/periodontal diagnosis of the patients at the time of reporting?
2. What was the time lag between the patient first meeting the symptom (an indicator of onset of disease) and reporting for the treatment.
3. What was the reason for delaying seeking of periodontal treatment

Aim: The present study was aimed at identifying the most common self-professed of patients actively seeking periodontal treatment.

Glued to the afore mentioned aimed were certain objectives that the deduction of which became imparitive for the purpose of the present study.

Patient Selection: The subjects for the study were selected from the outpatient department of Buddha Institute of Dental Sciences and Hospital, Patna, irrespective of sex and religion.

A total of 919 subjects were examined clinically and pre formulated proforma was filled. Case Definitions for periodontal health, gingivitis and periodontitis as outlined by AAP (1999) was followed in this study

Conclusion: Within the limitations of the study, it can be concluded that out of 919 patients who were surveyed in the Department of Periodontics, Buddha Institute of Dental Sciences & Hospital. The chief complaint for majority of the patients 43.53% was “bleeding gums”, followed by “dirty teeth/tartar or stain removal” was 21.98%.

Cc	Chief complain
OPD	Outpatient department
B.I.D.S.H	Buddha institute of dental sciences & hospital
AAP	American Academy of Periodontology
OHRQL	Oral health-related quality of life
BOP	Bleeding On Probing
PD	Probing Depth
CAL	Clinical Attachment Loss
PLI	Plaque Index
PTM	Pathologic Tooth Migration
CPITN	Community Periodontal Index of Treatment Needs
UQU	Umm Al-Qura University
TNs	Treatment Needs
SCS	Site Comparative Severity
GDPs	General dental practitioners
GR	Gingival Recession
GAP	Generalised Aggressive Periodontitis
LAP	Localised Aggressive Periodontitis
WHO	World Health Organisation
OMR	Oral Medicine and Radiology

Introduction

A chief complaint is defined as a subjective statement provided by a patient that describes the most significant or serious symptoms or signs of illness or dysfunction that caused him or her to seek a health care provider. It is generally recorded in the patient's own words. Multiple complaints are recorded in a chronological order to reflect the patient's perception of the problem accurately. **(Greenberg MS, Glick M. Burket's Oral Medicine: Diagnosis and Treatment. 10thedn. 2003).**

The chief complaint, formally abbreviated as CC, comprises the second step in dental history taking and is a concise statement describing the symptom, problem, condition, diagnosis, dentist-recommended return and other factors requiring a dental encounter. The patient's initial comments to the dentists, dental assistants and/or other oral health care staff members aid in establishing a differential diagnosis. Recording and identification of chief complaints are also considered the cornerstone for developing a logical treatment plan**. (Umm Al-Qura University, Makkah, Saudi Arabia Vol. 16-No.3-June, 2017)**

The chief complaints (CCs) of the patients represent the demand for dental care. **(Burt BA, Eklund SA. Dentistry, Dental Practice and the Community. 5th ed. Philadelphia).** Demand for dental care is the expression by a patient or the public of a desire to receive dental care to attend to their felt need. Felt need, also called perceived need or subjective need, is the need for dental care as determined by the patient or the public.

Data from epidemiological studies are used to assess the extent and severity of dental diseases within populations, from which estimates of need can be made. These estimates of normative need to tell us how much care is required if we are to treat active disease of the population today. Demand for dental care may differ from normative need, which is professionally determined. The problem that brings the patient to the dentist is obviously a treatment priority; otherwise, the patient will seek treatment elsewhere. It was found that only very few studies were made on the CCs of dental patients and there was no published report about the Indian scenario. **(Journal of Indian Academy of Dental Specialist Researchers, Vol. 2 Issue 2 | Jul-Dec 2015)**

The chief complaints of patients are considered significant because they help dentist to quickly assess what is important to the patient, as well as the patient's understanding of periodontal disease. Patient's chief complaints represent their immediate demands and may implicate their attitude towards periodontal treatment. By quickly and effectively eliminating chief complaints the dentists can strengthen rapport with their patients and greatly enhance patient's cooperation and treatment outcome. Compared with symptoms such as pain, tooth mobility, periodontal abscess and tooth migration which are found in severe stages of periodontal disease, attention to chief complaint can guide admitting triage, diagnosis and early treatment.

(International Dental Journal of Students Research;5[1]:19-24)

Little information is available on what are the most common CCs of patients with periodontitis. Many patient education brochures describe periodontal symptoms, but little is known about the relative importance of these symptoms in the CCs of patients with periodontitis. Most periodontal textbooks contain little information concerning the CCs of patients with periodontitis. **(JADA, Vol. 130, March 1999)**

In general, periodontal diseases are neglected by the patients and the dentists since these diseases are chronic, slowly progressing and painless in nature particularly in early stages when the inflammation is minimal and even in more advanced stages at which the destructive disease activity is located in the hidden subgingival area until true signs of periodontitis become more obvious. **(Chronic periodontitis chief complaints: gender and age… Vol.:7 No.:1 2010)**

The patient's diseased state should be perceived as a set of problems that must be solved. The first step in the development of a logical treatment planning is to define the problems as they exist. Definition of the problems can be achieved by thorough collection of information's from the patient by history taking. One of the important statements in history taking is the chief complaint. **(Al–Rafidain Dent J Vol. 7, No. 2, 2007)**

Taking and recording a dental history is an often-neglected but extremely important aspect of examination, diagnosis, prognosis, and treatment planning. Because many patients are treated by more than one dentist, this history should be updated regularly. The accuracy and reliability of facts from the dental history are always open to question. The patient's own answers, however, are important to record, because any inaccuracies may influence treatment. If the "facts" are not consistent with what is seen in the mouth or on radiographs or with the dentist's knowledge of periodontal problems and their treatment, more extensive questioning may be necessary [2]

India represents almost 17.31% of the world's population, which means that one out of six people on this planet live in India. About 72.2% of the population live in approximately 638,000 villages and the remaining 27.8% in approximately 5,480

towns and urban agglomerations. In a federation composed of 29 states and 7 union territories, it was revealed that the population ratio was 940 females per 1,000 males in the Population Census of 2011. In addition, life expectancy in India is at 68 years, with life expectancy for women being 69.6 years and for men 67.3 years.

India reveals a lot of disparities in terms of ratios, one of which is the field of the oral health. The dentist-to-population ratio in the rural areas is dismally low with less than 2% dentists being available for 72% of the rural population. Statistics present the grim reality that 95% of the population in India suffer from periodontal disease, only 50% use a toothbrush, and just 2% visit the dentist 23,690 undergraduate and 1,138 postgraduate students are educated in 291 dental colleges in India. **(Chandra, et al.: Epidemiology since last decade, Journal of International Society of Preventive and Community Dentistry 2016)**

The purpose of this study was to determine the most common chief complain of patients with periodontal disease. This information can aid in planning educational and motivational programs that will help patients seek treatment in the early stage of periodontitis, when it is most successful [9].

Table 1: Demography Data of the patient with periodontal disease

Parameters		Frequency	Percent
Gender	**Male**	606	65.94%
	Female	313	34.06%
Age Group (years)	**11-20**	139	15.13%
	21-30	360	39.17%
	31-40	196	21.33%
	41-50	134	14.58%
	51-60	70	7.62%
	61-70	15	1.63%
	71-80	5	0.54%

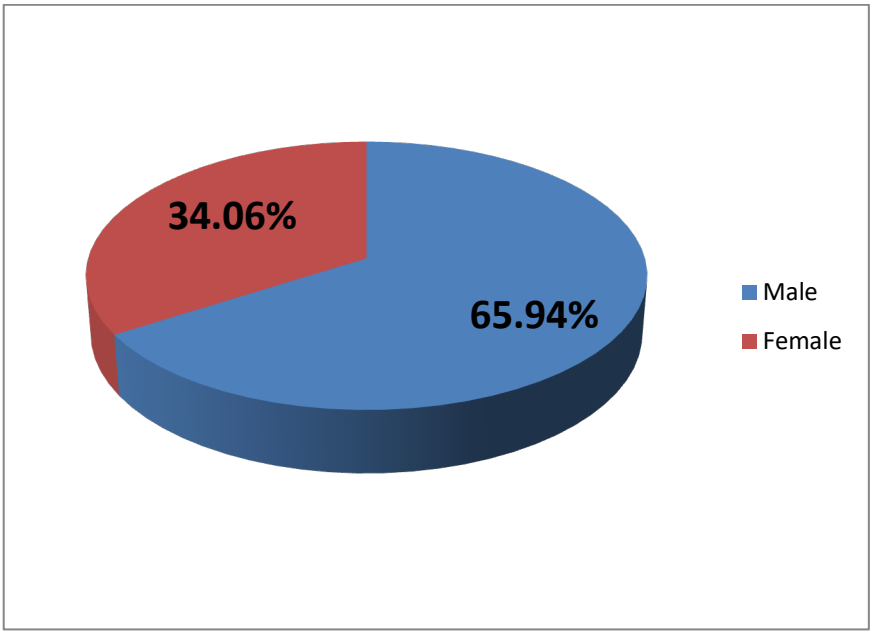

Figure 1: Gender wise distribution of the patient with periodontal disease

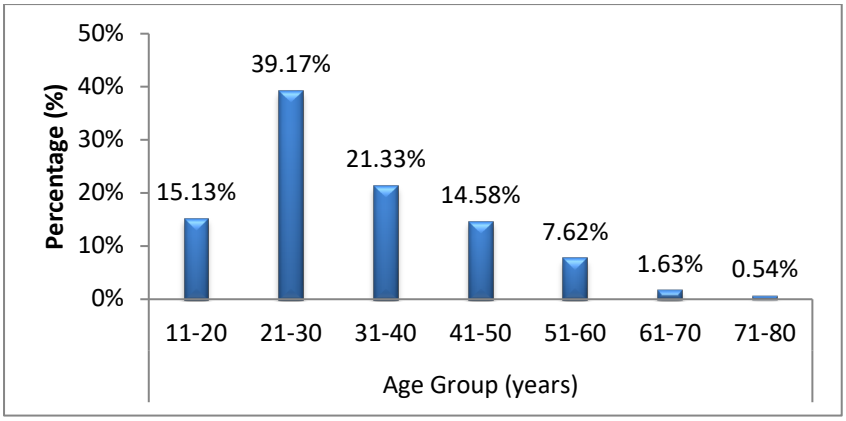

Figure 2: Age wise distribution of the patient with periodontal disease

Table 2:

Chief complaints	Age group														Total	
	11-20		21-30		31-40		41-50		51-60		61-70		71-80			
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Bleeding gums	71	7.73%	195	21.22%	83	9.03%	35	3.81%	16	1.74%	0	0.00%	0	0.00%	400	43.53%
Dirty teeth /tartar or stain removal	34	3.70%	68	7.40%	37	4.03%	35	3.81%	22	2.39%	5	0.54%	1	0.11%	202	21.98%
Sensitivity	5	0.54%	16	1.74%	28	3.05%	18	1.96%	8	0.87%	2	0.22%	1	0.11%	78	8.49%
Bad Breadth	15	1.63%	27	2.94%	2	0.22%	4	0.44%	1	0.11%	0	0.00%	0	0.00%	49	5.33%
Food Impaction	1	0.11%	13	1.41%	19	2.07%	9	0.98%	6	0.65%	0	0.00%	0	0.00%	48	5.22%
Painful Teeth	5	0.54%	13	1.41%	8	0.87%	9	0.98%	7	0.76%	3	0.33%	0	0.00%	45	4.90%
Painful gum	2	0.22%	5	0.54%	7	0.76%	6	0.65%	1	0.11%	2	0.22%	0	0.00%	23	2.50%
Gums are leaving teeth	2	0.22%	5	0.54%	1	0.11%	7	0.76%	2	0.22%	2	0.22%	0	0.00%	19	2.07%
Pus Discharge	0	0.00%	10	1.09%	6	0.65%	1	0.11%	0	0.00%	0	0.00%	0	0.00%	17	1.85%
Others	1	0.11%	2	0.22%	2	0.22%	6	0.65%	2	0.22%	0	0.00%	0	0.00%	13	1.41%
Swellling/enlarged gums	3	0.33%	3	0.33%	3	0.33%	1	0.11%	2	0.22%	0	0.00%	0	0.00%	12	1.31%
Loose Teeth	0	0.00%	2	0.22%	0	0.00%	3	0.33%	1	0.11%	1	0.11%	0	0.00%	7	0.76%
Need to get teeth fixed	0	0.00%	0	0.00%	0	0.00%	0	0.00%	1	0.11%	0	0.00%	2	0.22%	3	0.33%
Tooth Moving/coming out	0	0.00%	0	0.00%	0	0.00%	0	0.00%	1	0.11%	0	0.00%	0	0.00%	1	0.11%
Would like to save my teeth	0	0.00%	1	0.11%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	1	0.11%
Trouble Chewing Food	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	1	0.11%	1	0.11%
Total	139	15.13%	360	39.17%	196	21.33%	134	14.58%	70	7.62%	15	1.63%	5	0.54%	919	100.00%

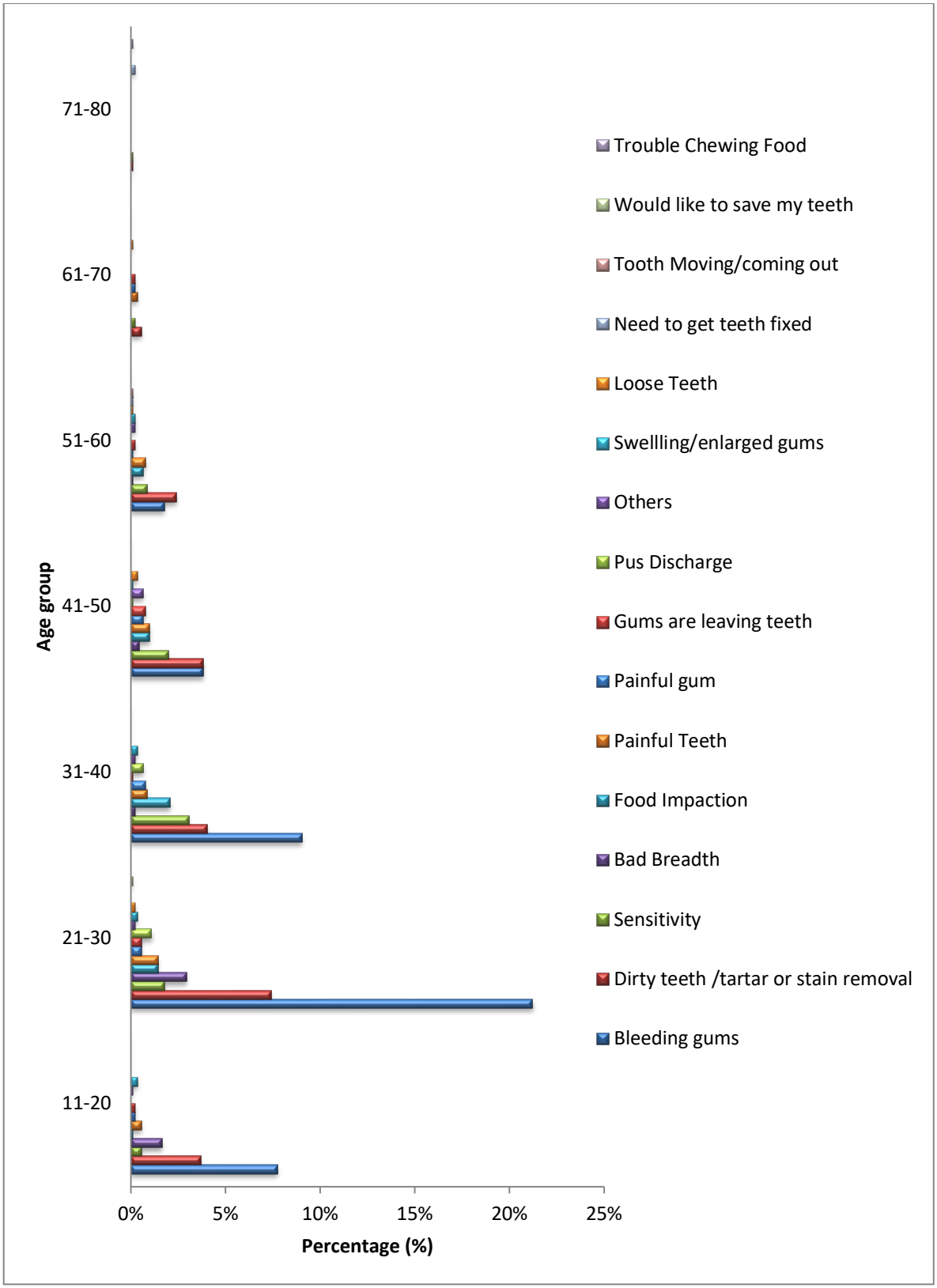
71-80
61-70
51-60
41-50
31-40
21-30
11-20
Age group
0%
5%
10%
15%
20%
25%
Percentage (%)
Trouble Chewing Food
Would like to save my teeth
Tooth Moving/coming out
Need to get teeth fixed
Loose Teeth
Swellling/enlarged gums
Others
Pus Discharge
Gums are leaving teeth
Painful gum
Painful Teeth
Food Impaction
Bad Breadth
Sensitivity
Dirty teeth /tartar or stain removal
Bleeding gums

Figure 3:

Table 3: Distribution of chief complaint in patients with periodontal disease

Chief complaints	Frequency	Percent
Bleeding gums	400	43.53%
Dirty teeth /tartar or stain removal	202	21.98%
Sensitivity	78	8.49%
Bad Breadth	49	5.33%
Food Impaction	48	5.22%
Painful Teeth	45	4.90%
Painful gum	23	2.50%
Gums are leaving teeth	19	2.07%
Pus Discharge	17	1.85%
Swellling/enlarged gums	13	1.41%
Others	12	1.31%
Loose Teeth	7	0.76%
Need to get teeth fixed	3	0.33%
Tooth Moving/coming out	1	0.11%
Would like to save my teeth	1	0.11%
Trouble Chewing Food	1	0.11%
Total	**919**	**100%**

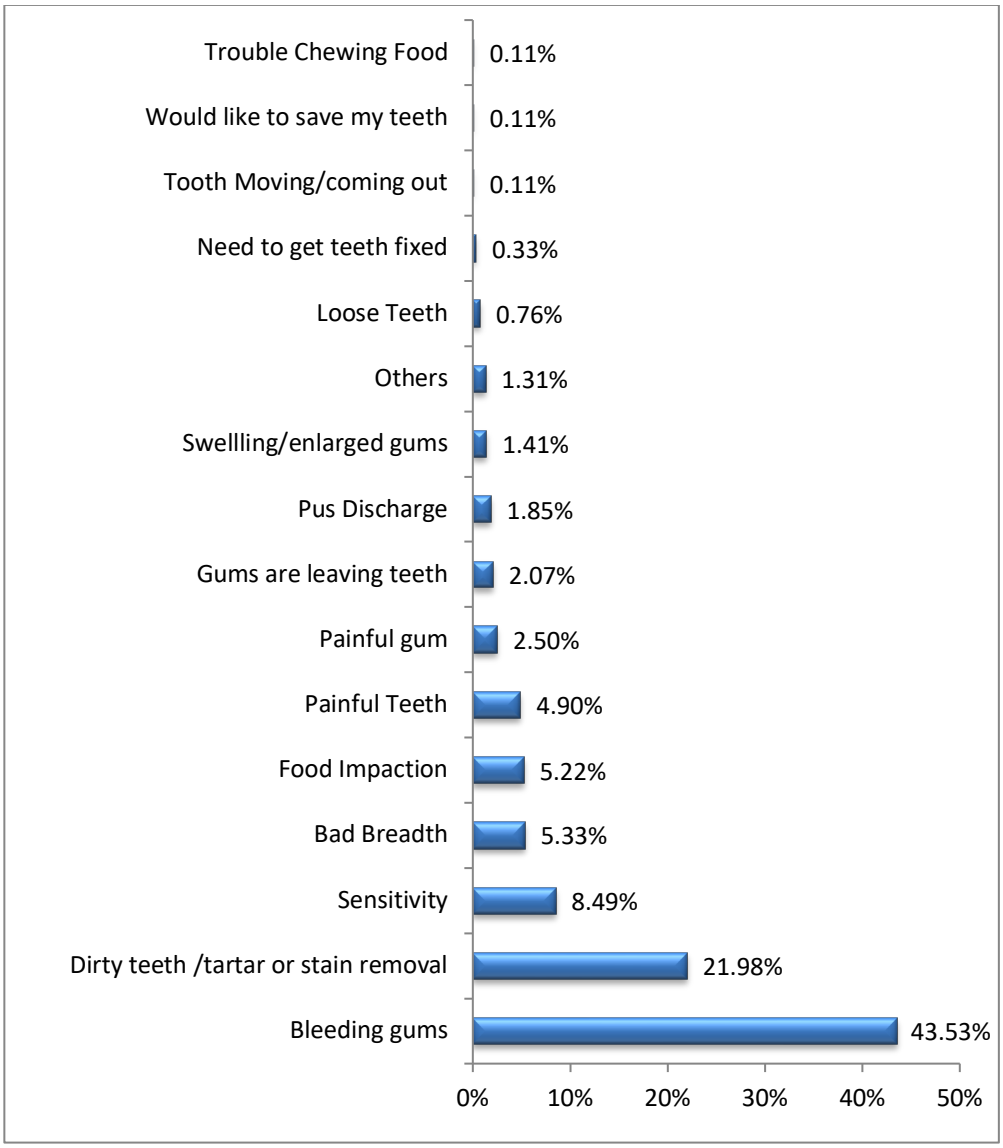

Figure 4: Distribution of chief complaint in patients with periodontal disease

Table 4: Time lag between the onset of disease and seeking of treatment in patients with periodontal disease

Time lag	Frequency	Percent
0-15 Days	72	7.83%
15-30 Days	50	5.44%
1month -6 month	401	43.63%
6 month - 1 year	268	29.16%
1 year -5 year	125	13.60%
> 5 Year	3	0.33%
Total	**919**	**100.00%**

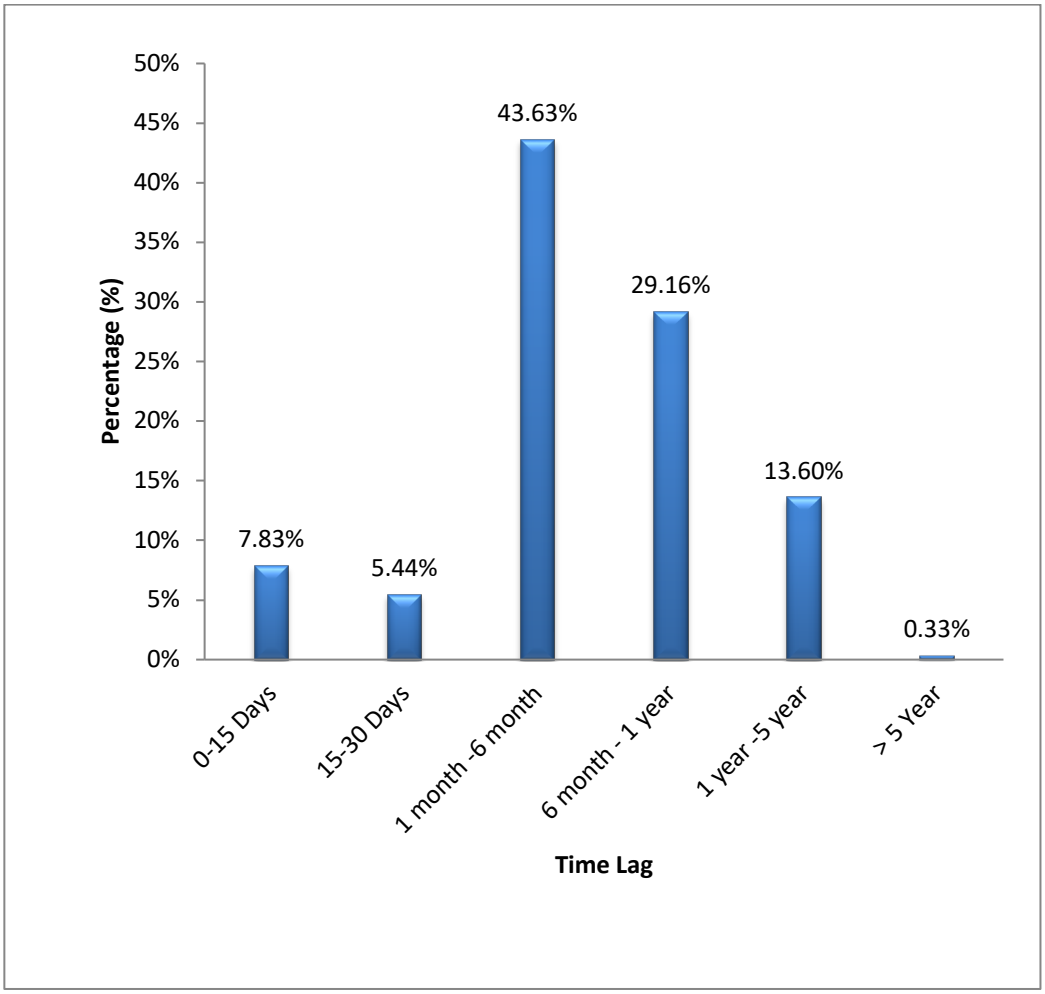

Figure 5: Time lag between the onset of disease and seeking of treatment in patients with periodontal disease

Table 5: Reason for delaying treatment of the patient with periodontal disease

Reason for delaying treatment	Frequency	Percent
No facility near by	95	10.34%
No time	615	66.92%
Was not painful	21	2.29%
Did not take seriously	187	20.35%
None	1	0.11%
Total	**919**	**100.00%**

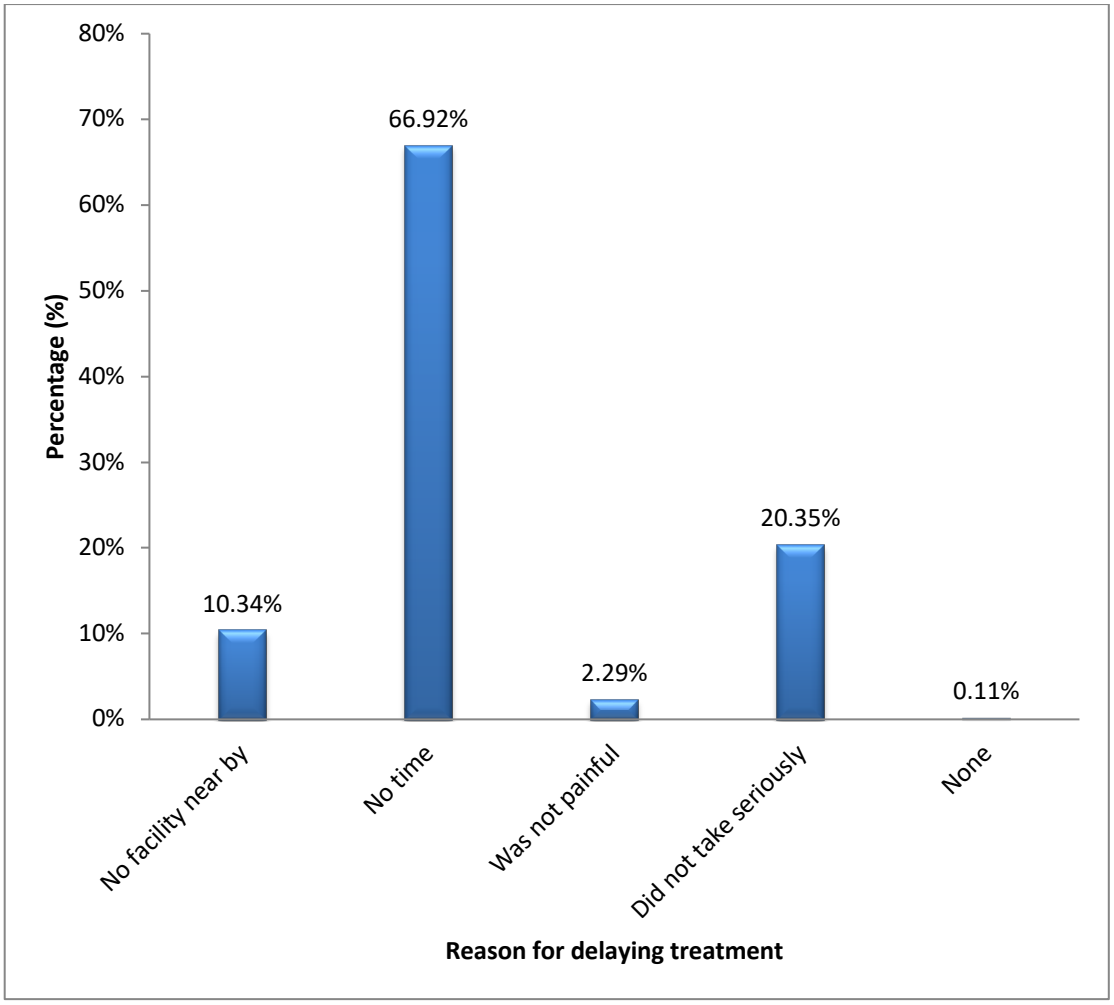

Figure 6: Reason for delaying treatment of the patient with periodontal disease

Table 6: Age wise distribution of reason for delaying treatment of the patient with periodontal disease

Reason for delaying treatment	Age Group														Total	
	11-20		21-30		31-40		41-50		51-60		61-70		71-80			
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
No facility near by	10	1.09 %	27	2.94 %	26	2.83 %	15	1.63 %	13	1.41%	1	0.11%	3	0.33%	95	10.34 %
No time	101	10.99%	258	28.07%	122	13.28%	89	9.68 %	37	4.03%	6	0.65%	2	0.22%	615	66.92 %
Was not painful	4	0.44 %	10	1.09 %	4	0.44 %	2	0.22 %	1	0.11%	0	0.00%	0	0.00%	21	2.29 %
Did not take seriously	24	2.61 %	64	6.96 %	44	4.79 %	28	3.05 %	19	2.07%	8	0.87%	0	0.00%	187	20.35 %
None	0	0.00 %	1	0.11 %	0	0.00 %	0	0.00 %	0	0.00%	0	0.00%	0	0.00%	1	0.11 %
Total	**139**	**15.13%**	**360**	**39.17%**	**196**	**21.33%**	**134**	**14.58%**	**70**	**7.62%**	**15**	**1.63%**	**5**	**0.54%**	**919**	**100.00%**

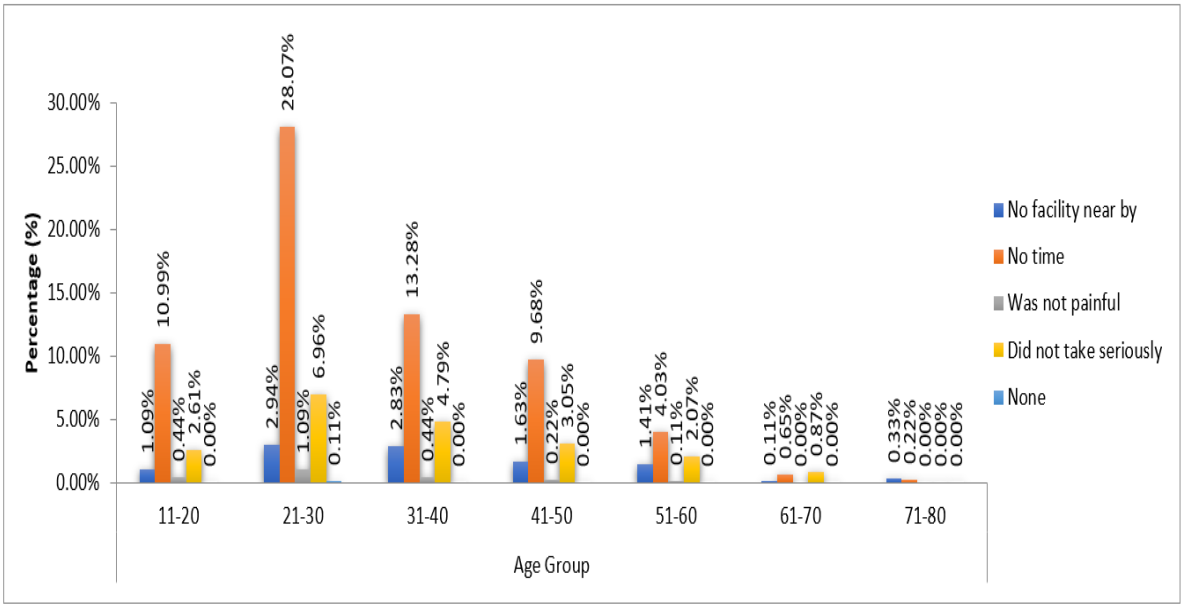

Figure 7:

Table 7: Distribution of the patient with periodontal disease according to the diagnosis

Diagnosis	Frequency	Percent
Localised Gingivitis	1	0.11%
Generalised Gingivitis	470	51.14%
Generalised gingivitis with localised Chronic Periodontitis	133	14.47%
Generalised Chronic Periodontitis	315	34.28%
Total	**919**	**100.00%**

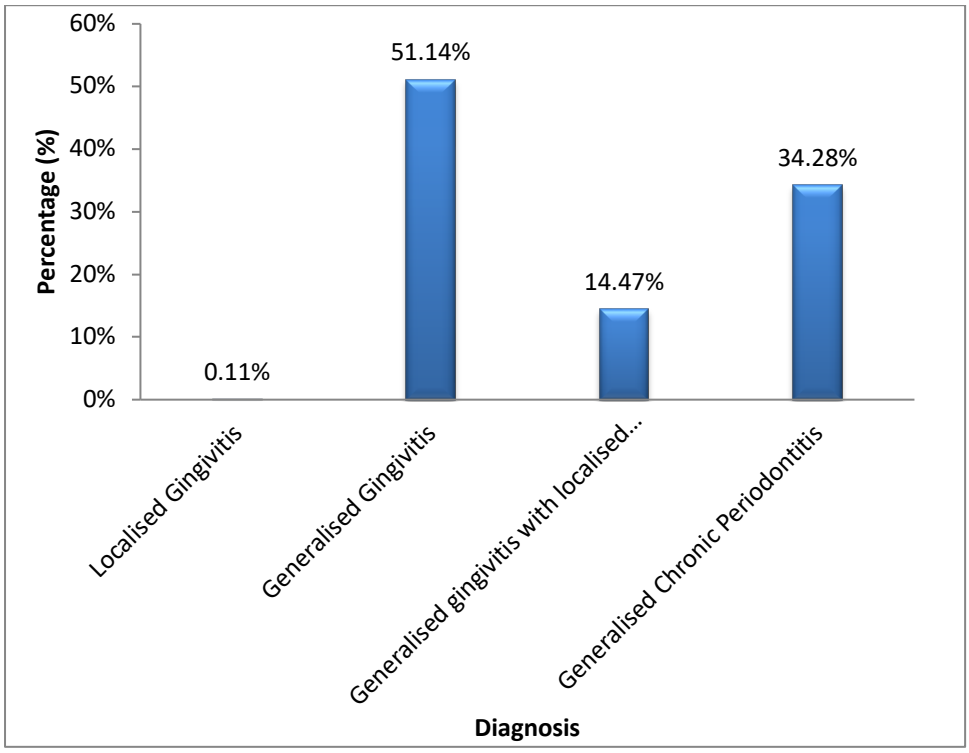

Figure 8: Distribution of the patient with periodontal disease according to the diagnosis

Conclusion

India is considered to be a region of periodontitis endemicity (Shaju P Jacob). Ramfjord et al in 1968 discussed a WHO survey done in India along with 4 other countries. They observed that there was 100 prevalence of periodontal disease in India.

Under the government of India and WHO collaborative program of oral health a multi centric oral health survey was envisaged in 2004, in order to have a baseline data of the burden of oral diseases and associated risk profile of the population for four index age groups, viz., 12,15,35-44 and 65-74 years. This survey was conducted in 7 different geographical locations in India and reported 100% prevalence of disease from states like Orissa and Rajasthan in the latter age groups.

Inspite of such high rates of prevalence of periodontal diseases, the number of people seeking periodontal treatment is not very high. There has been a general perception that oral health in India is considered to be the least important. (Shaju P Jacob)

Moreover, in its most common form periodontal disease is generally considered to be a painless process until it reaches severe stages. It is often overlooked by patients and dentists in the early stages, especially when inflammation is not obvious. (B.P.O IN 1999)

Thus, it is important to know what factors – symptoms of disease or other factors are successful in motivating patients to seek periodontal treatment. (Brunsvold 1999)

The present study has been conducted on patients referred to the Department of Periodontics of Buddha Institute of Dental Sciences & Hospital by the Department of Oral Medicine & Radiology of the same institution. Thus, none of the patients were self-referred to the Department of Periodontics, however all of them were in requirement of some form of periodontal treatment.

The commonest chief complaint of patients revealed by the study was "Bleeding gums" which was present is 43.53% of the total number of patients. This data is not in agreement with one such study conducted by Brunsvold Nair in the year 1999, where the chief complaint "bleeding gums" was reported by only 20.4% of the subjects. The most common chief complaint mentioned most commonly by the US patients of that study was "I was told I had gum disease". None of the subjects in the present study mentioned this as their chief complaint. This suggests a need for renewed efforts and increased responsibility on the part of dental health team members to inform their patients about the presence of periodontal disease.

The second most common chief complaint by the US patients in the study conducted by BPO was "I would like to save my teeth". Saving teeth by the subjects of the present study seems to be an extremely remote priority in their lives, as only 0.11% of the patients mentioned that as a chief complaint. This fact corroborates the claim by Shaju Jacob & Das in 2011 that oral health in India is considered to be the least important.

There was an average time lag of …. days between the onset of realization of the symptoms of the disease and seeking of treatment. 43.63% of patients had a delayed factor between 1month-6months, while 29.16% of patients delayed it for 6months-1year. While 66.92% of patients said that they had "no time", 20.35% of patients admitted that they "did not take seriously". This also shows the lack of awareness and interest regarding periodontal disease of the patients.

10.34% of patients delayed treatment because they had "no facility" near their home for treatment. Since majority of patients in this institution come from the nearby suburbs and distant villages, the authorities need to construct more oral health care facility in those areas.

"Painful teeth" and "Painful gum" were reported as chief complaints by only 4.9% and 2.5% of the subjects respectively. Only 0.11% of patients had touble chewing food while 0.76% complained of loose teeth. These results explain in part, the problem of motivating patients to seek periodontal therapy. Patient education effort needs to emphasise the painless onset and progress of periodontal disease even in the most severe stages of the disease.

Although bad breadth is a common finding among patients with periodontal diseases, only 5.33% of patients have mentioned this as a chief complaint. This may be due to their reluctance to discuss bad breadth (due to embarrassment), or a lack of awareness. It is likely that many subjects may have avoided to include some aspects to their real chief complaint because of the personal natures of such complaint.

21.98% of the patients' chief complaint was dirty teeth/tartar stain removal. This may be thought to reflect the overwhelmingly common habit of chewing tobacco and related products of subjects residing in this part of the country.

The present study has shown that the chief complaint "bleeding gums" was highest in subjects less than 40 years of age. Patients in the age group of 41-50 had dirty teeth/tartar/stain removal as their chief complaint together with bleeding gums. Whereas in patients more than 50 years the chief complaint "dirty teeth/tartar/stain" was the commonest one in This finding is in sync with the findings of Brunsvold Nair in 1999 and also with that of Demetriou in 1991, and may be explained by epidemiological data indicating that gingivitis decreases with age. (Brown Oliver &Loe)

Although the sample size of the present study was large, a limiting factor of this study is that the samples were not acquired consecutively.

Another limitation was the variables that can affect the recording of the chief complaint by the examiner. These variables include the differences in

referral sources and the interpretation of the chief complains by the examiner.

The present study was aimed to determine the chief complaint of the patient with periodontal disease, time lag between the onset of disease and seeking of treatment and reason for delaying treatment.

The present study was conducted in the Department of Periodontics, Buddha Institute of Dental Sciences and Hospital, Patna. A prior clearance from the institutional ethical clearance was obtained from the institutional ethical committee.