To Assess the Oral Health Condition and its Relation with the Gastric Problems Due to Medication of the Chronic Illness among the Geriatric Population

Internship Training
at
CARE INDIA Bihar
(1 February 2014 – 30 April 2014)

By

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Under the guidance of
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Post Graduate Diploma in Hospital & Health Management
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TO WHOMSOEVER MAY CONCERN

This is to certify that **Dr. Swati Nigam** student of Post Graduate Diploma in Hospital and Health Management (PGDHM) from Institute of Health Management Research, Jaipur has under gone internship training at **CARE India,** from **1 February, 2014 to 30 April, 2014**.

The candidate has successfully carried out the study designated to her during internship training and her approach to the training has been sincere, scientific and analytical.

The internship is in fulfilment of the course requirements.

I wish her all success in the future endeavours.

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The certificate is awarded to

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In recognition of having successfully completed her Internship at

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and has successfully completed her Project on

To assess the Oral Health condition and its relation with the gastric problems due to medication of the chronic illness among the Geriatric Population

From 27th January 2014 to 30th April 2014

She comes across as a committed, sincere & diligent person who has a strong drive & zeal for learning

We wish her all the best for future endeavors

Dr. Ravindra Sharma
Program Manager
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Certificate by Scholar

This is to certify that the dissertation titled To assess the Oral Health condition and its relation with the gastric problems due to medication of the chronic illness among the Geriatric Population and submitted by Dr. Swati Nigam Enrolment no IIHMR/PGDHM/2012-14/17-1395 under the supervision of Dr. Arindam Das for award of Postgraduate Diploma in Hospital and Health of the Institute carried out during the period from 1 February 2014 to 30 April 2014 embodies my original work and has not form the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other Institute or other similar institution of higher learning,

Signature

Dr. Swati Nigam

ACKNOWLEDGEMENT

The internship was started with a vision to be able to learn about the practical aspects of healthcare delivery system in a detailed manner. I hereby take this opportunity to express my deep sense of gratitude to all those who have been instrumental in the successful completion of my internship. Any accomplishment requires efforts of various individuals and this work is no exception

Firstly, I would like to thank Dr S D Gupta, Director - Institute of Health Management Research, Jaipur, and all the faculties, for the education imparted which has made me the person I am today, and CARE India for believing in my abilities.

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Dr. S. D. Gupta, My Mentor also deserves gratitude for always guiding me through difficulties. My guide and mentor have taken me through every obstacle throughout the two years of my course.

Mr Afaq Shah, my Director at CARE India has been supportive all along my tenure in the organization and allowed me the freedom to express myself.

Finally, and most importantly, I would like to thank God for allowing me to complete my project, my beloved parents for their blessings and my friends for their help and wishes for the successful completion of this internship.

Dr. Swati Nigam

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Acronyms

BHI – Block Health Inspector

BPL: Below Poverty Line

DMO – District Malaria Officer

DPO – District Program Officer

FW – Fied Worker

IC – IRS Consultants

IEC: Information, Education, Communication

IFHI – Integrated Family Health Initiative

IRS – Indoor Residual Spraying

IT: Information Technology

KA – Kala Azar

KLW – KA Link Workers

KTS – KA Technical Supervisor

M&E: Monitoring and Evaluation

MIS: Management Information System

MOIC – Medical Officer in charge

PKDL – Post Kala Azar Dermal Leishmaniasis

SFW – Superior Field Worker

SKAEP – Scale up of Kala Azar Elimination Program

VL – Visceral Lieshmaniasis

Part B: Dissertation

Project Report

2.1 Introduction

Owing to advanced therapeutic modalities over the years, the life expectancy has increased to 67.9 years leading to an alarming rise in the number of residents with general and oral morbidity. [1]

In developing countries, the projected population of those aged 65 years and above will be 470 million by 2020. By 2050, one third of the world population will be over 60 years. [2]

India has acquired the label of an aging nation with the elderly population currently being over 77 million and the population is expected to account for an alarming 12 percent of the total population by 2020. The rapid graying of the population comes with a number of difficulties in terms of general and oral health. The homebound and the nursing home bound residents are the group of elderly who are unable to maintain independence. If the impairment is severe enough; they may not be able to leave the house without assistance or may become institutionalized in the nursing homes.

The two striking features regarding the elderly population of India are as follows: (i) the rate of growth of the elderly population is much faster than the growth of the total population; and (ii) the feminization of the elderly population. The elderly people are characterized by their diversity in economy, literacy level and health status. The characteristics of the residents have a dramatic contrast to those living their life independently. Loss of independence, cognitive problems, forgetfulness, lack of motivation, physical disability layered with chronic medical problems in them contribute to diminish the self care ability thereby enhancing their susceptibility to oral diseases.

India is currently home to about 1.21 billion people representing about 17% of the earth's population. Over 72% percent of people live in rural areas. The geriatric population

constitutes the major portion of the rural population, about 80 percent of the elderly resides in rural India, and among them 73 percent are illiterate and 75 percent are economically dependent.[3]

This study aims to establish a relation between the oral health condition and the medications consumed by the geriatric population with their gastric problems.

2.2 Review Of Literature

The elderly people are characterized by their diversity in economy, literacy level and health status. The characteristics of the residents have a dramatic contrast to those living their life independently. Loss of independence, cognitive problems, forgetfulness, lack of motivation, physical disability layered with chronic medical problems in them contribute to diminish the self care ability thereby enhancing their susceptibility to oral diseases. [4]

Rao *et al*. (1999) assessed the oral health status in 287 institutionalized residents in Mangalore in India. It was observed that none of the subjects had completely healthy periodontium. The community based survey in adults and in elderly in India, revealed that the large segment of the adult population is toothless. [5]

Oral health related quality of life was assessed in 255 chronically ill elderly residing in the facility by Peltola *et al*,(2005) as follows: [6]

a. Based on a questionnaire, representing three dimensions with the number of residents—
    1. Functional limitations e.g. the patient cannot eat normal food – 77
    2. Pain or discomfort-related limitations e.g. pain or discomfort while eating – 3
    3. Psychosocial limitations e.g. the patient has been concerned about oral health – 14

b. Categorization based on oral health assessed by clinical examination

    1. Very Poor and Poor – 48%
    2. Moderate – 33%
    3. Good and Excellent – 19%

The distribution of dentist to meet population requirements is grossly uneven. The dentist population ratio in rural India is 1:3,00,000. Eighty percent of dental professionals dwell in urban areas and render services to just 30 percent of the urban population, whereas the remaining 70 percent of the rural population is left with meager dental services [7]

2.3 Research Question

1. What is the oral health condition of the geriatric population under study?
2. What portion of the population covered is affected by gastric problems?
3. How does the oral health condition and medication for chronic illness affect the gastric condition of the study subject.

2.4 Objective

2.4.1.General Objective

Observe the relation between oral health condition and chronic gastric problems among geriatric population.

2.4.2 Specific Obejective

1. To assess the oral health condition of the geriatric population under study.
2. To assess the extent of the geriatric population affected by gastric problems.
3. To assess the inter relationship between the oral health condition and medication for chronic illness with the gastric condition of the study population.

2.5 Methodology

Study Area – East Champaran District (Motihari, Turkoliya, Pakdidayal, Dhaka, Kesariya, Chiraiya, Madhuban)

The selection of the District is on the basis of the posting and the seven blocks have been randomly selected with the exception of Motihari, which has been included to cover the urban population.

Study Design - The present study was a cross sectional analytical study.

Data Collection Technique –Personal Interview

Data Collection Tool - Interview schedule

Study Period – 1st March to 30 April 2014

Target Groups - Respondents for the study should be 60 years or older.

Sample Size – A sample size of 70 respondents was targeted for the study.

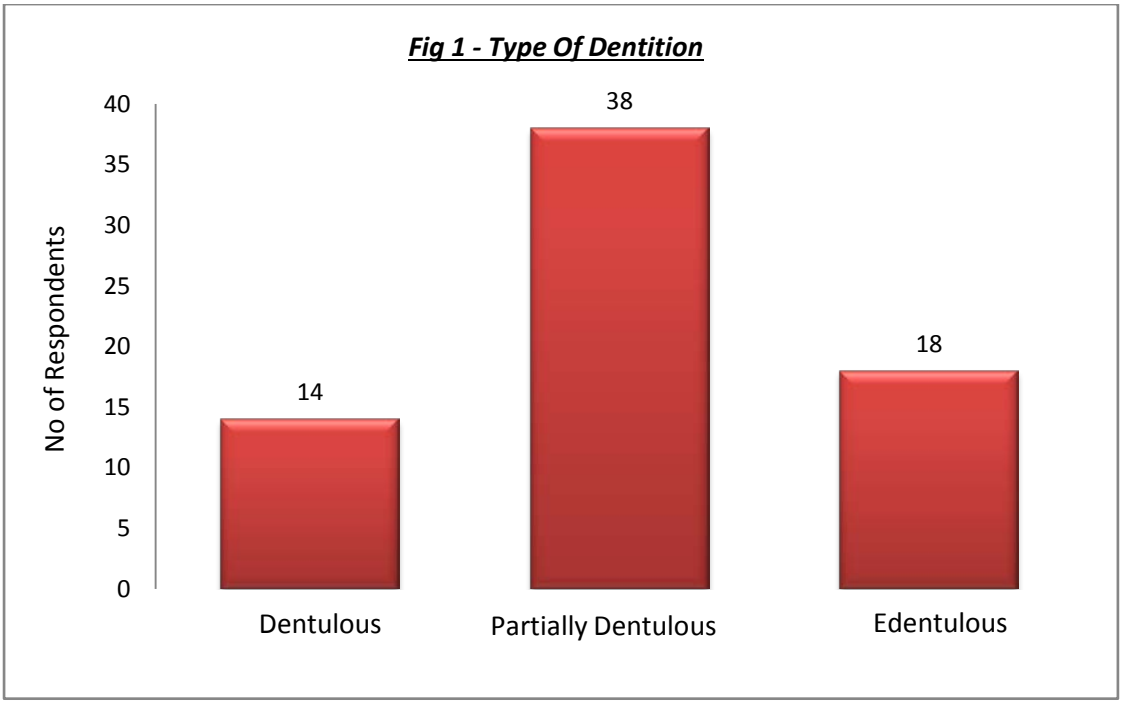
2.6 Findings

The data was collected by interviewing 70 respondents, both in the urban town of Motihari and in the rural areas of the block mentioned. Respondents from both town and rural areas were included because it would bring out the comparison between the dental situation between the geriatric population of both areas.

Table 1 - Area Interviews conducted

	Town	Rural
Total Respondents	30	40

When educational qualification was taken into account, it was observed that out of 70 respondents, 52 respondents either were illiterate or had education upto 5th Standard only. Only 11 respondents had education level above 5th Standard and two were post graduates. The educational qualification was taken into account to understand the level of awareness and knowledge that the geriatric patients had of dental treatment and the right methods of retaining good oral hygiene.

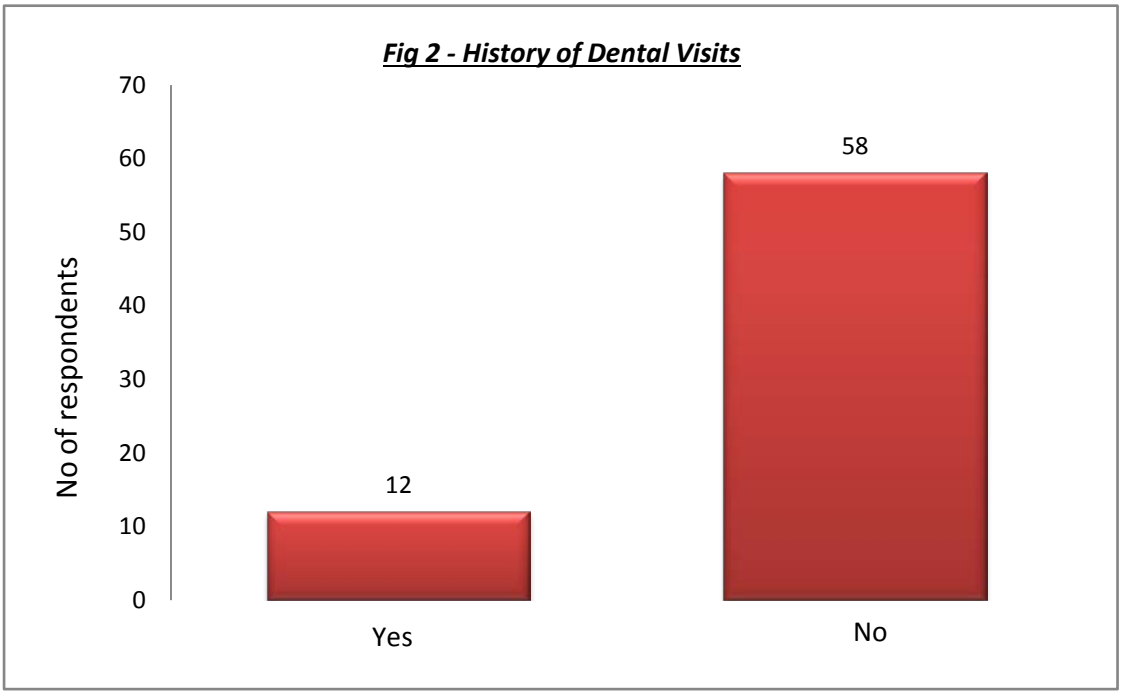


Out of the 70 respondents, it was observed that 54% of them were partially edentulous, only 20% had complete dentition and almost 26% of the population interviewed was completely edentulous. While collecting this data, following criteria were followed –

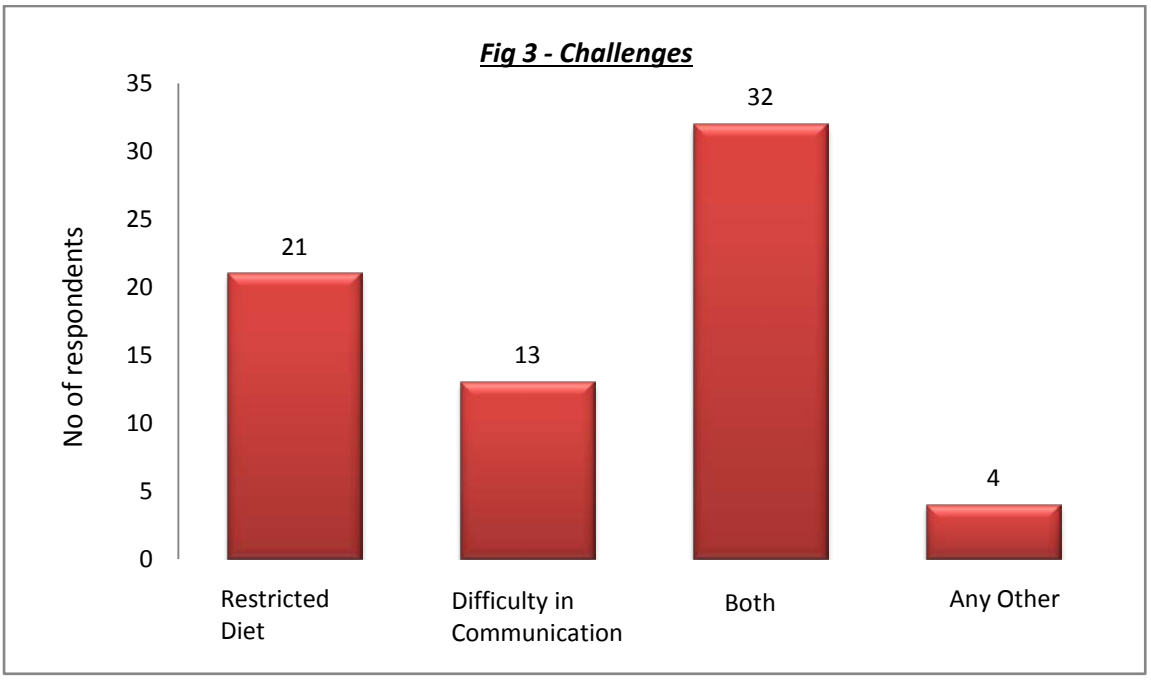
- A respondent would be considered with complete dentition only when he/she had complete dentition in each quadrant of the jaw till the first molar. In this, artificial dentition through dentures, bridges or caps given by a qualified dentist would also count as part of dentition.
- He/she will fall into the category of partial dentition if there was presence two or more teeth with intact crown in any of the four quadrants. Root stems would not be counted as part of the dentition.
- Complete absence of dentition even though he/she may have root stems, would be categorized as Edentulous patient.

This data points out how more than 80% of the population above 60 years of age is without complete dentition and has no artificial form of dentition like denture/bridge/caps etc to

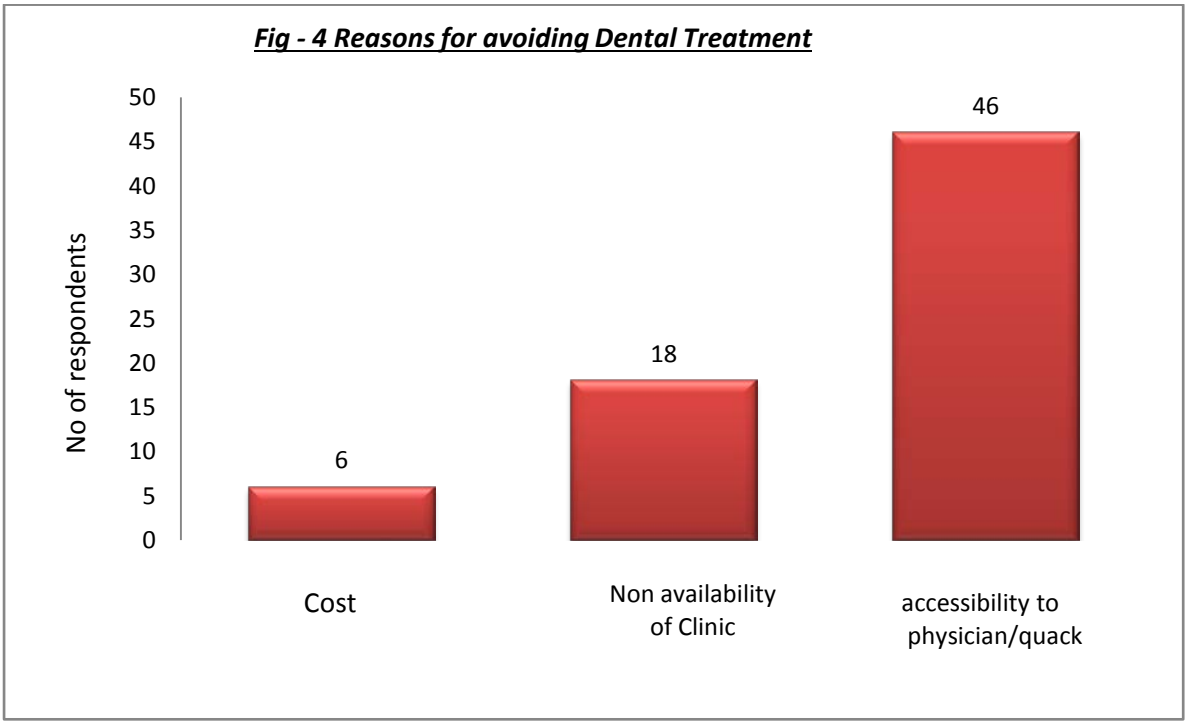
substitute for the loss of the missing dentition



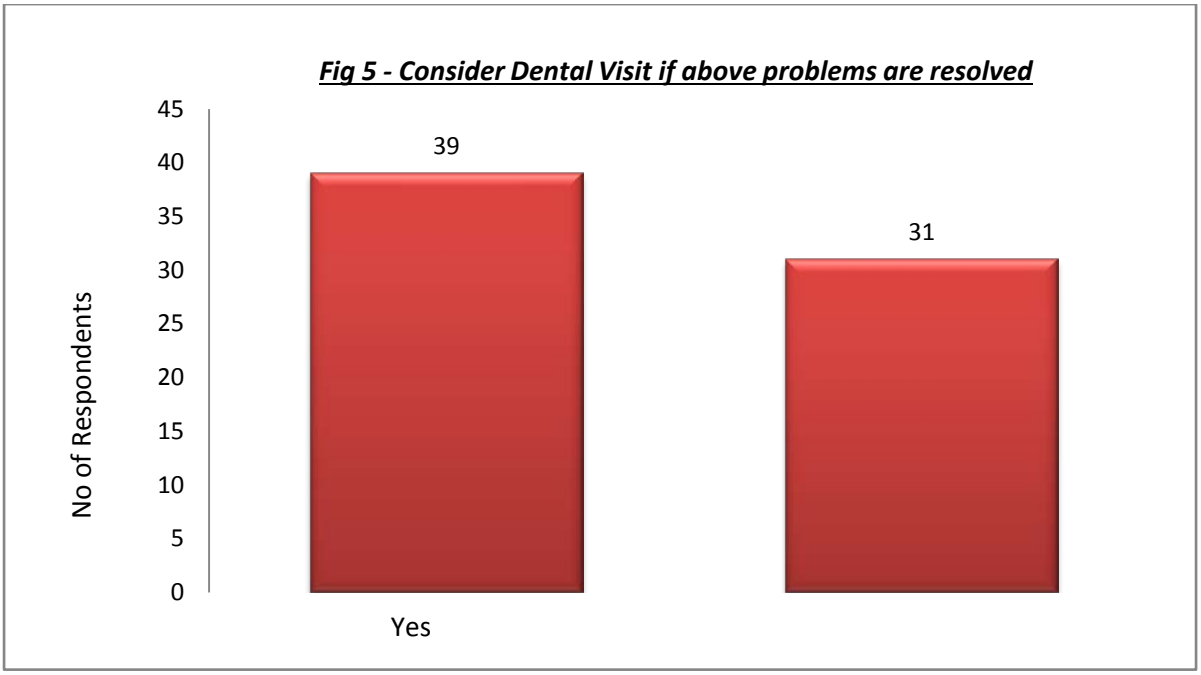
On asking on whether the respondents had ever visited a dentist, according to the response recorded, it was observed that 83% of the respondents had never visited a dentist in their lifetime. It was only the 17% of the respondents that gave the history of visiting a dentist.



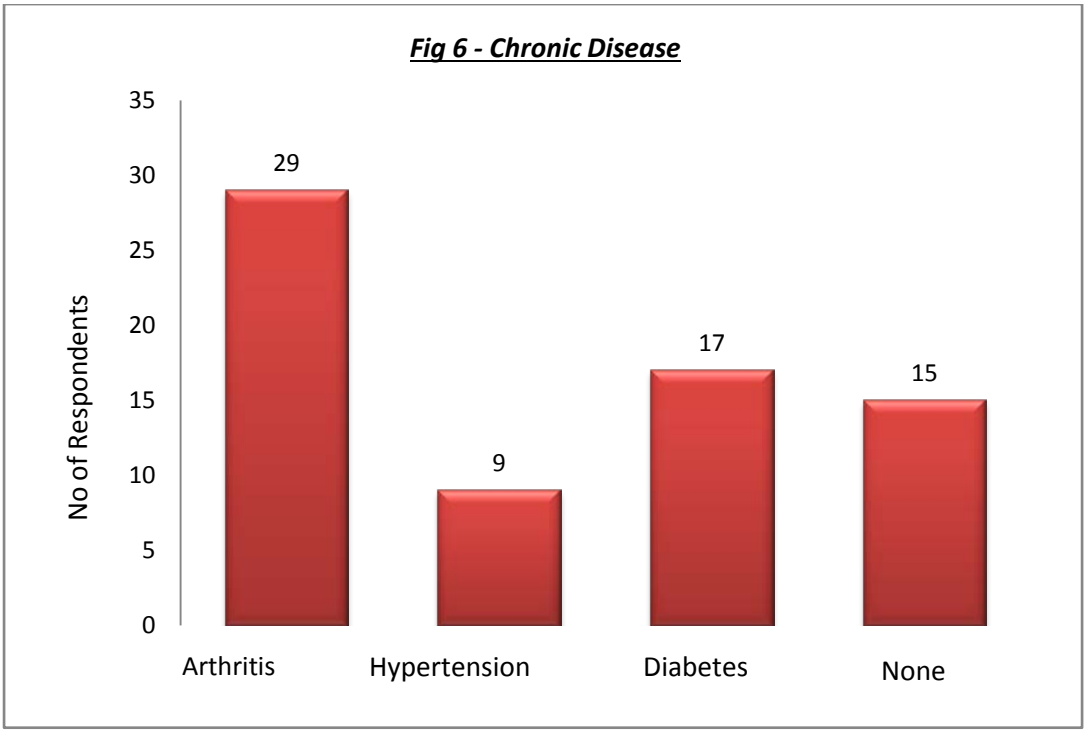
As observed from the graph above, all the respondents suffered from one or the other problems listed due to their dental status. Problems like aesthetics, bad odour were some of the other problems that the respondents said they faced.



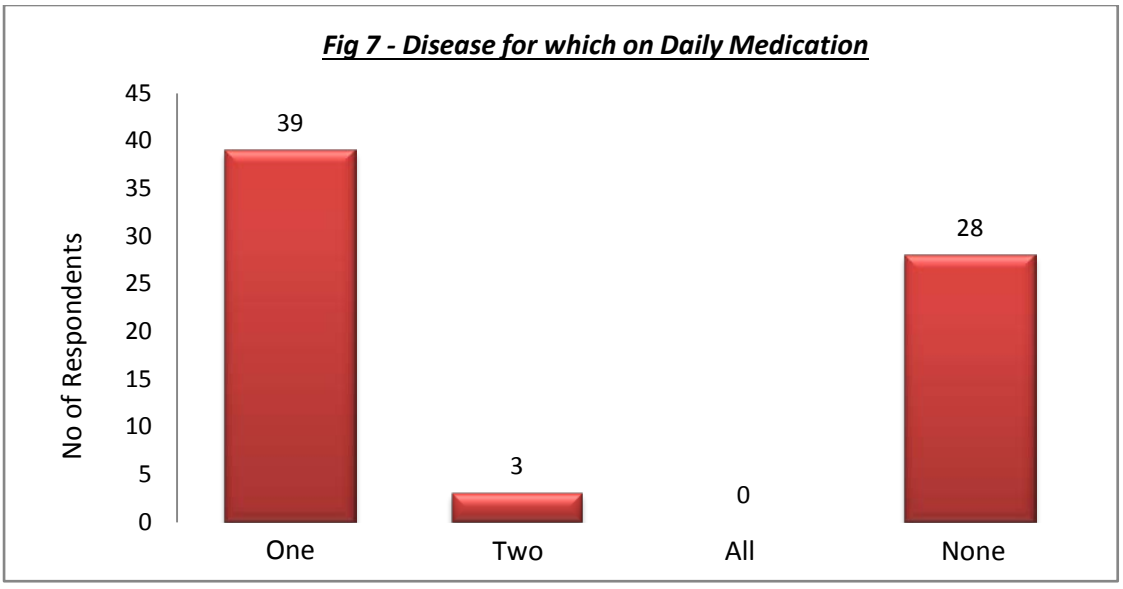
As observed from the graph above, 66% of the respondents said that because they had easier accessibility to a physician or a quack in their area, they never felt inclined to go to a Dentist. 26% of the respondents said they would have considered going to a trained professional but because there was no dental set up in or around their area, hence they did not feel the need to make the effort of going to distant location and nine percent of the respondents said although they had the accessibility to a dentist and they would have considered going to him/her for treatment, but the cost involved in the dental treatment lead them to finding other alternatives.



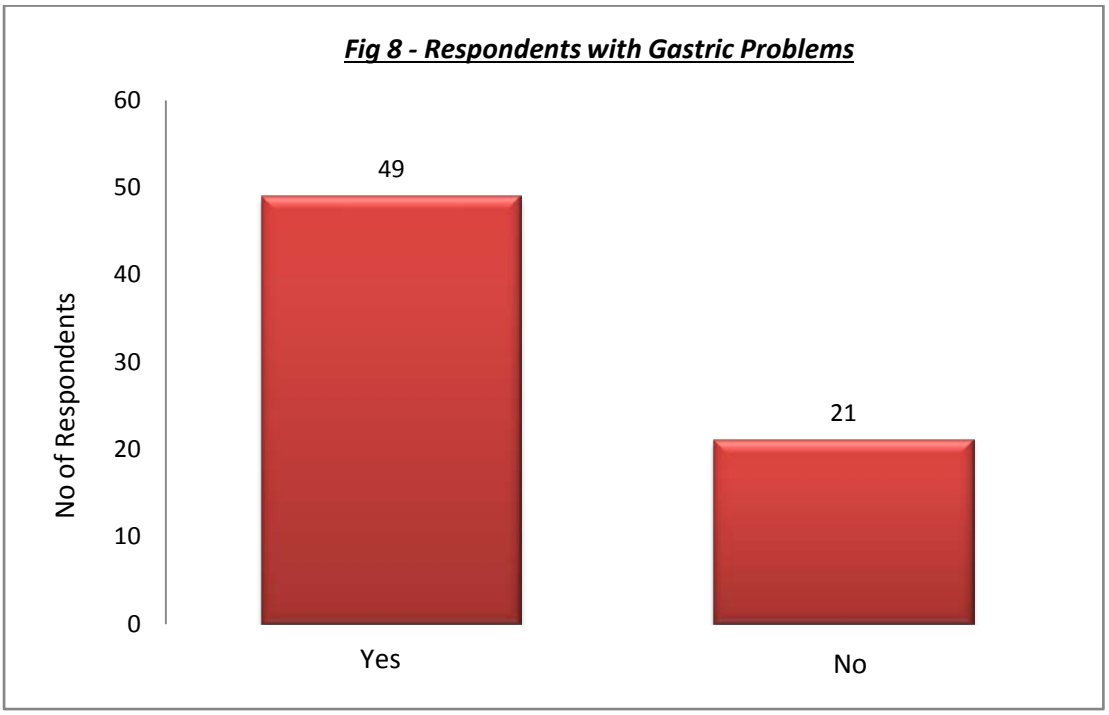
The above data shows that 56%, ie more than half of the respondents would consider dental treatment from a trained professional if the problem mentioned by them in the previous question was resolved. But the point that comes into light through this data is also that just less than half of the respondents, ie 44% of them, would still not consider dental treatment even if accessibility or the cost factors were taken care of.



As observed from the graph above, of the total, 79% of the respondents were suffering from atleast one of the chronic diseases listed and only 21% said that they did not suffer from any chronic illness.

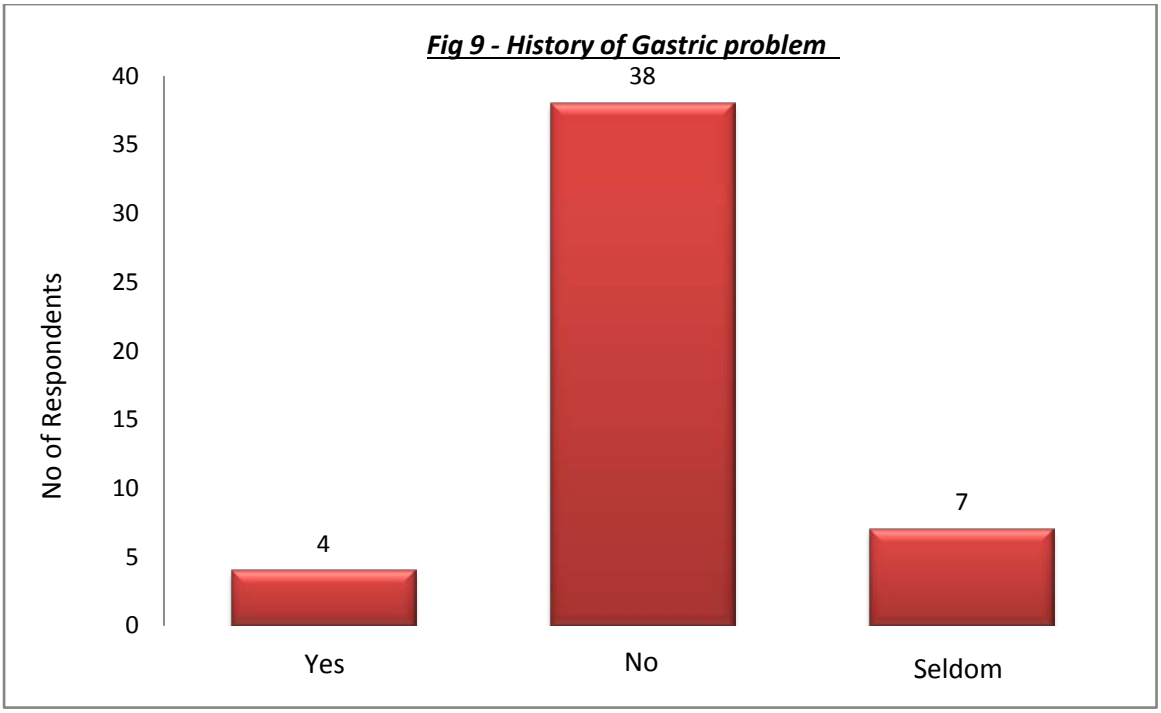


56% of the respondents said that they were on medication for atleast one of the chronic diseases mentioned in the list while 40% of the respondents said that although they were suffering from minimum one of the diseases mentioned above but they were not taking any medication for it.

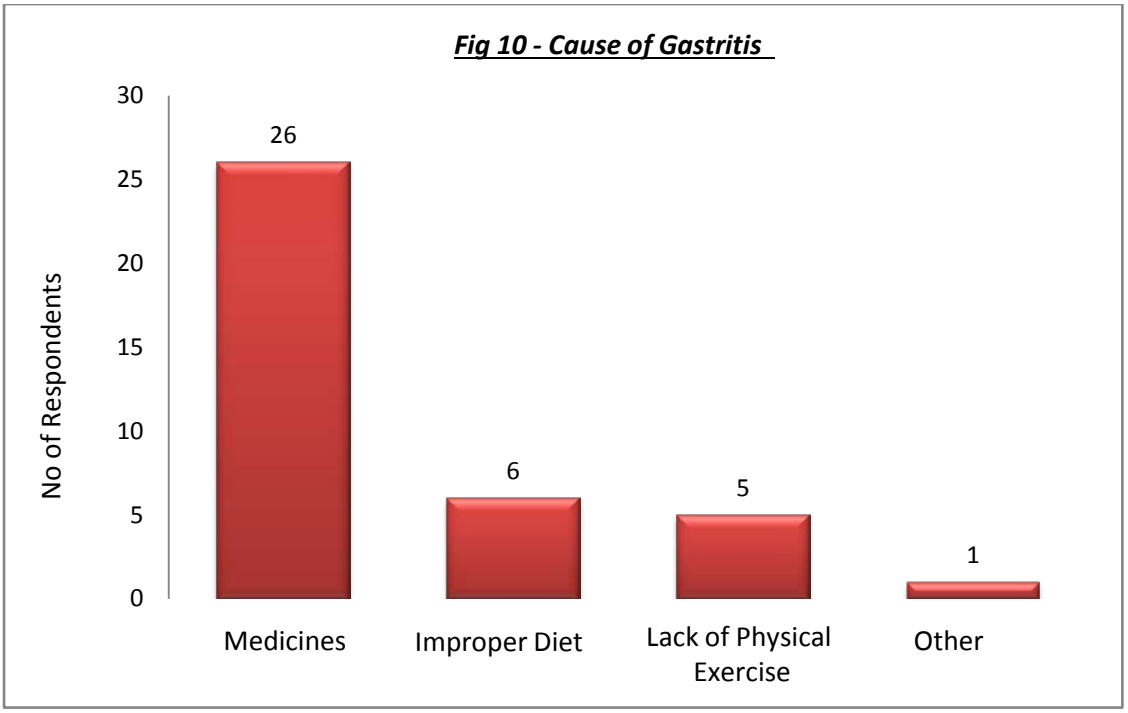


As shown in the graph, 70% of the respondents said that they were suffering from gastric problems. This response was irrespective of whether they were on any medication for the chronic illness or not. This finding suggested that gastric problem was quite prominent in the sample of the geriatric population that was under study.

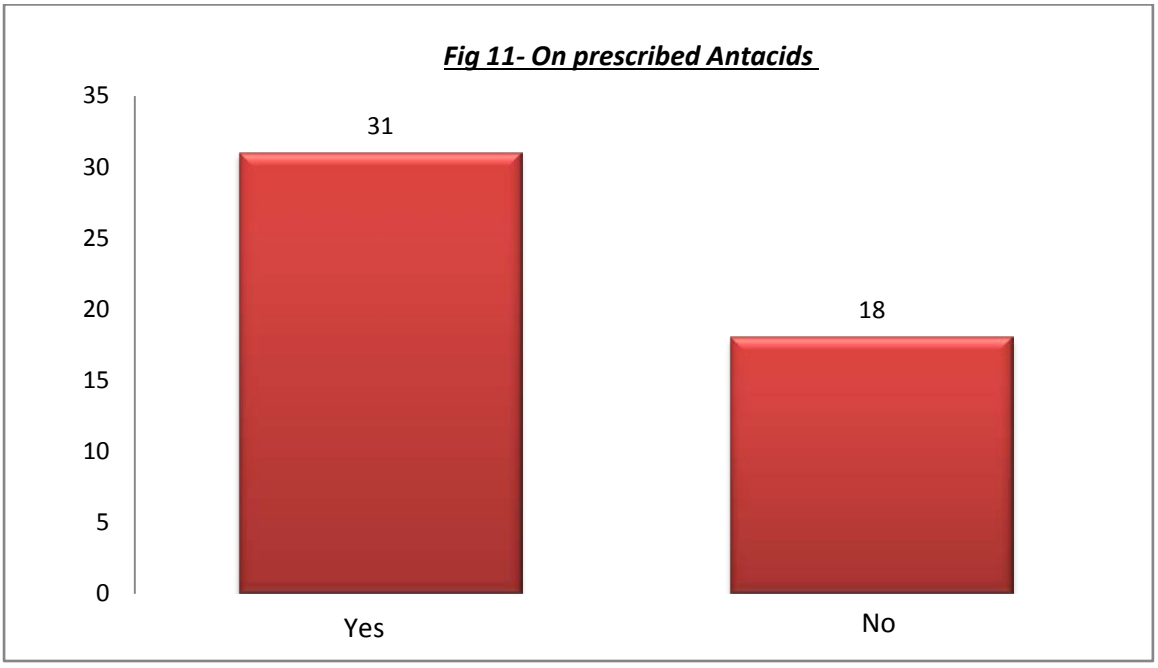
Also, based on the response on the frequency of the gastric episodes that the respondents suffered from, 67% of them said that they suffered from gastric episode once or twice every week while 16% said that they suffered from gastritis daily.



Of the 49 respondents who said that they had suffered from gastric problems, only eight percent of the respondents said that they had suffered from gastric problems regularly before the start of medication while 76% of the respondents did not give any history of any gastric problem before the start of the medication. 14% of the respondents said that they had suffered from gastric problems before the start of the medication but they were not regular episodes and were on rare instances.

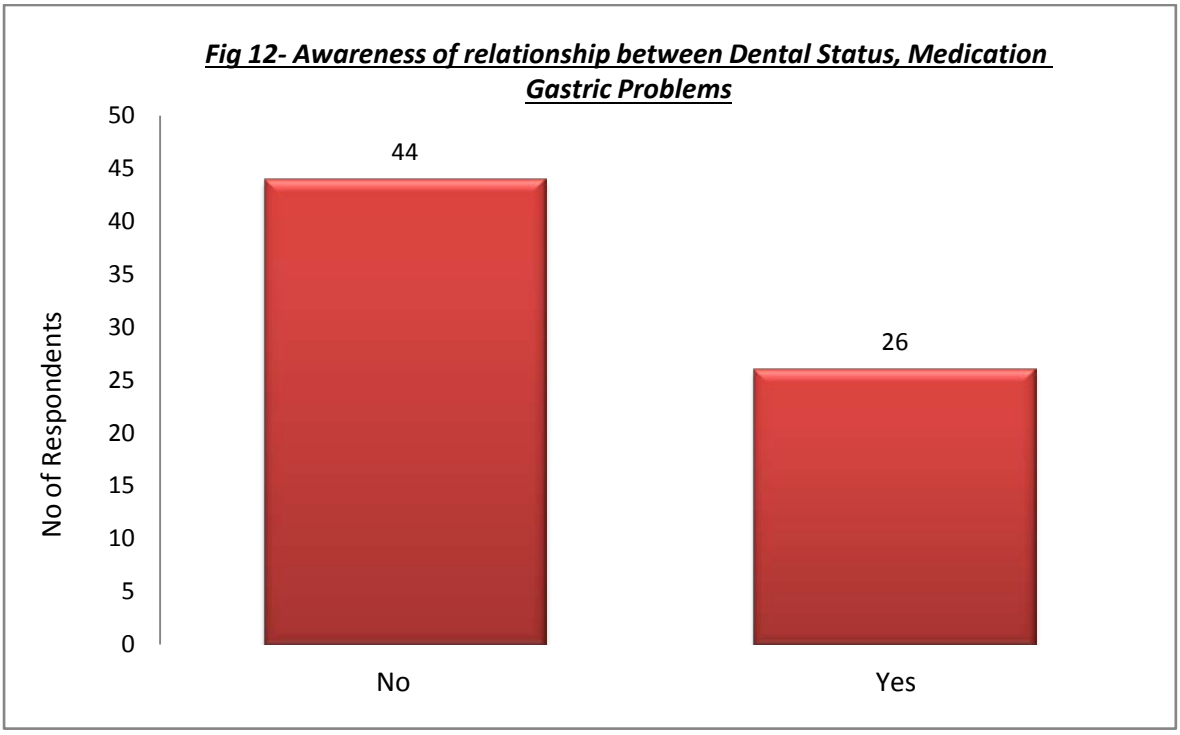


When asked about the reason their gastric problem was triggered according to their doctors, 71% of them said that it was because of the medication taken by them and the second most prominent reason that was recorded was improper diet.



Of the 49 respondents who said that they suffered from gastric problems, 63% respondents said that they had been prescribed antacids for their gastric problems while rest of the 37%

said that either they were not prescribed antacids or they were not taking their medication of antacids.



Of the total respondents, when asked if they were aware that there might possibly be some relationship between their dental Status, medication and gastric problems, 63% of the respo ndents said that they were not while only 37% respondents said that they were aware that a relationship existed.

2.7 Conclusion and Recommendations

2.7.1 Conclusion

The following data compiled from the study further emphasises on the positive relationship between the above parameters.

Total Respondents = 70

↓

Respondents with poor oral health status = 56

↓

Respondents with a history of chronic Illness = 55

↓

Respondents on daily medication for the same = 42

↓

Respondents with NO history with Gastritis = 38

↓

Medication diagnosed as a cause of gastritis = 26

↓

Respondents on prescribed antacids = 31

As observed, out of the 70 respondents which were interviewed, it was observed that 56 of them suffered from extremely poor oral health hygiene. Of those with poor oral health hygiene, 55 of them said they suffered from either one or more than one of the three chronic diseases listed and 42 respondents were on daily medication for the same. When asked whether these respondents with chronic illness and medications had any previous history of

gastric problems, 38 of them said that before the start of the medication, they had never suffered from a chronic gastric problem. Of those with gastric problems, 26 of them said that medication taken by them daily had been diagnosed as the causative factor triggering their gastric problems and 31 respondents said they were under daily doses of antacids.

Therefore, from the study conducted, we can derive that a positive relationship exists between the Oral Health Status, Chronic Illness, their daily medication and the gastric problems that the geriatric population under study was suffering from and that these factors negatively affected their quality of life that they were leading.

2.7.2 Recommendation

- For the geriatric patients, the government hospital and clinics should ensure availability of functional dental set ups and dentists and subsidized treatments.
- While prescribing long term medication for these patients, they should take into account their diet status and the kind of food that they consume. In chronic illness, where topical medicines instead of oral medicines can be prescribed, they should be given a preference.
- Whenever possible, the physicians should guide the patients to go for dental check ups and treatment at regular basis.

ANNEXURE

Questionnaire

Interview Schedule

(*To Assess the Oral Health Condition and its relation with the chronic gastric problems due to chronic illness in the Geriatric Population)*

Location of the interview_____

Informed consent: I would like to thank you for giving your valuable time for this survey. My name is _____. I would like to talk to you about your experience regarding the ICDS scheme run by the department of women and child health. The interview should take about 15 minutes. The responses will be kept strictly confidential. We will ensure that any information that we include in our report does not identify you as the respondent. Remember, you don't have to talk about anything that you don't want to and you can end the interview at any time.

Do you have any questions about what I just explained?
_____
_____
_____

Are you willing to participate in the interview?
(Yes/No)_____

Interviewee Signature: _____

SECTION A: Details of Location of interview

TYPE OF RESIDENCE	RURAL							
	URBAN							
VILLAGE								
SERIAL NO								
DATE OF INTERVIEW								

SECTION B: BACKGROUND CHARACTERISTICS

	QUESTIONS AND FILTERS	CATEGORIES	CODING
1.	How old are you? (Age in completed years)		
2.	Education	Illiterate	1
		Literate, no formal education	2
		Until 5thstd	3
		Until 10thstd	4
		Higher secondary	5
		Senior secondary	6
		Graduate	7
		Post graduate	8
		Don't know/ can't say	98
3.	Occupation (Self)		
4.	Occupation (Spouse)		
6.	How many children do you have?		

SECTION C :

Q.NO	QUESTIONS	CATEGORY	CODE	SKIP TO
1.	Type of Dentition	Dentulous Partially Dentulous Edentulous	1 2 3	
2.	Have you ever visited a Dentist?	Yes No	1 2	If 2, the skip to Q.5
3.	Have you visited a Dentist in the last 5 years?	Yes No	1 2	
4.	For which of the following treatments did you visit the dentist?	Cleaning & Polishing Restoration Extraction Any other	1 2 3 4	
5.	What are the challenges that you face in your everyday life because of your dental problems?	Restricted Diet Difficulty in Communication Both 1 and 2 Any other	1 2 3 4	
6.	Due to what reason do you avoid going for any dental treatment?	Cost Non availability of dental clinic nearby. Easier accessibility to physician/quack	1 2 3	
7.	Would you consider going to a qualified dentist if the above problem is taken care of?	Yes No	1 2	
8.	Have you been diagnosed with any of the following diseases?	Arthritis Hypertension Diabetes No	1 2 3 4	If 4, then end the interview.
9.	For which of the diseases mentioned above are you on a daily medication?	One Two All	1 2 3	If 4, then skip to Q.11

		None	4	
10.	For what duration have you been on medication for the above diagnosed disease?	<one month One - Six months <a year >A year	1 2 3 4	
11.	Do you suffer from gastric problems?	Yes No	1 2	If 2,then end the interview
12.	How often do you suffer from Gastric episodes?	Daily Once a Week Twice a Week Once – Twice a month >Twice a month	1 2 3 4 5	
13.	Did you suffer from gastric problems before starting the medicines of the chronic illnesses mentioned above?	Yes No Seldom	1 2 3	
14.	If no, then what according to your doctor triggered your gastric problem?	Medicines Improper Diet Lack of Physical Exercise Any Other	1 2 3	
15.	Have you been prescribed/do you take antacids for gastric problems?	Yes No	1 2	
16.	What is the dosage/frequency of the medication?	Before every meal Once a day Twice a day SOS	1 2 3 4	
17.	Are you aware that there might be a relation between your dental status, your medication and your gastric problem?	Yes No	1 2	