STATE OF ORAL HEALTH CARE IN PUBLIC HEALTH SETTINGS IN DISTRICT OF JALANDHAR (PUNJAB)

Dissertation submitted to Jawaharlal Nehru University in the partial fulfillment of the requirements for the award of degree of

MASTER OF PHILOSOPHY

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CERTIFICATE

This dissertation entitled "STATE OF ORAL HEALTH CARE IN PUBLIC HEALTH SETTINGS IN DISTRICT OF JALANDHAR (PUNJAB)" is submitted in the partial fulfillment of six credits for the award of the degree of MASTER OF PHILOSOPHY of Jawaharlal Nehru University, New Delhi. This dissertation has not been submitted to the award of any degree of this university or any other university and is my original work.

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ABSTRACT

This study explored the state of oral health care in public health settings in the district of Jalandhar in Punjab. The broad objective of the study was to study the state of oral health services in Punjab with respect to its location in public health settings in district of Jalandhar. The increasing burden of the oral diseases in the developing countries despite advances in the Dental technology and expanding Dental market motivated the researcher to undertake the study. Around 70% of Indian population lives in rural areas and their oral health needs should be considered and documented for improvement in the field.

The study is exploratory in nature and uses mixed methods both qualitative and quantitative which involved survey of four CHCs and District Hospital in Jalandhar. The data was collected from primary and secondary sources and various tools of data collection such as checklists, semi structured interview schedule, in depth interviews and observations were used. All the dentists, chief pharmacists and SMOs working in the public hospital in Jalandhar were interviewed. The quantitative data consisting of presence of manpower and the oral health services being provided in District of Jalandhar was analysed. The qualitative data which consisted of perception of patients and dentists regarding the provisioning of oral health care in the district added weight to the results obtained.

The results showed that out of total OPD Dental OPD formed 5 to 10% in public hospitals with extraction being the most frequently performed procedure. There was no availability of Prosthodontic and Orthodontic procedures in the public hospitals. There was a complete lack of Dental auxiliaries while all the public hospitals had Dental surgeons in place. The Dental fortnight camp was conducted in District for fifteen days with a fund of rupees one lakh which provided denture services missing in regular OPD. The oral cancer patients were referred to the empanelled hospitals in Punjab and the government pays for the treatment cost of up to 1.5 lakh rupees under the cancer scheme being run in Punjab. The patients followed tooth brushing and use of *datum* (neem twig) as the means to ensure Dental health. They chose to visit public hospitals due to low cost and convenient distance from home.

Resolving the oral health problem and the way it is addressed will involve various actors which include the government, the care providers and the care seekers. Not only will it involve improvement in infrastructure, manpower and Dental education but there will be a need to change the attitude of community towards oral health.

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LIST OF ABBREVIATIONS

AMO	AYURVEDIC MEDICAL OFFICER
ASHA	ACCREDITED SOCIAL HEALTH ACTIVIST
BCC	BEHAVIOUR CHANGE COMMUNICATION
CHC	COMMUNITY HEALTH CENTRE
CMO	CHIEF MEDICAL OFFCIER
COPD	CHRONIC OBSTRCUTIVE PULMONARY DISEASE
CVD	CHRONIC VASCULAR DISEASE
DCI	DENTALCOUNCIL OF INDIA
DDHO	DISTRCIT DENTALHEALTH OFFICER
DMFT	DECAYED MISSING FILLED TEETH
FDI	FEDERATION DENTAIRE INTERNATIONALE
IEC	INFORMATION EDUCATION COMMUNICATION
IPD	IN PATEINT DEPARTMENT
IPHS	INDIAN PUBLIC HEALTH STANDARDS
MDGs	MILLENIUM DEVELOPMENT GOALS
MDS	MASTERS OF DENTALSURGERY
MPW	MULTI PURPOSE WORKER
NCD	NON COMMUNICABLE DISEASES
NRHM	NATIONAL RURAL HEALTH MISSION
OPD	OUT PATIENT DEPARTMENT
PAP	PUNJAB ARMED POLICE
PCD	PROFESSIONALS COMPLEMENTARY TO DENTISTRY
PDC	PUNJAB DENTALCOUNCIL
PHC	PRIMARY HEALTH CENTRE
RCT	ROOT CANAL TREATMENT

RMO	RURAL MEDICAL OFFICER
RMP	REGISTERED MEDICAL PRACTITIONER
SC	SUB CENTRE
SMO	SENIOR MEDICAL OFFICER

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CHAPTER 1: STATE OF ORAL HEALTHCARE IN INDIA: AN INTRODUCTION AND REVIEW

Introduction

"Oral health is a state of being free from chronic mouth and facial pain, oral and throat cancer, oral sores, birth defects such as cleft lip and palate, periodontal (gum) disease, tooth decay and tooth loss, and other diseases and disorders that affect the oral cavity." (World Health Organisation).The various disease conditions of the oral cavity provide an idea about the general health of the body. These disorders involve various tissues in the oral cavity and manifest in form of oral diseased conditions. If we trace the journey of oral health from ancient times till now there are enough evidences which show that Dental treatment was available and various forms of cure were available for Dental ailments.

Efforts were made to treat Dental diseases with the then available means. The civilisations globally accepted oral health to be as important as general health. Like the general body diseases oral health finds its mention in the ancient scriptures and texts. When we talk of health of the oral cavity and its diseased condition, the early Summerian text refers to tooth worm as the cause of the Dental diseases. Ebers Papyrus a famous Egyptian text gives the account of various ailments of the oral cavity and the treatment for the same. In the Egyptian history the teeth united by gold wires were also discovered by some archaeologists. On the other hand the Chinese used the famous technique of acupuncture to treat the disease. During thirteen and fifteenth century the surgical duties of tooth extraction were transferred from monks to barbers. They were divided into two groups; one who performed complex surgical extractions and others who did routine work of tooth cleaning and simple extractions. During sixteenth to eighteenth century, dentistry progressed in a scientific manner and many discoveries related to tooth disease to crude Dental machinery were made. (Hussain & Khan,2014)

When we talk of Indian history there are evidences to show what importance dentistry had in Indian medicine. Bastar town in Jharkhand has a temple called Danteshwari.

The belief is that the temple is located at the place where tooth of sati fell. Even in 2500 BC dentistry existed when the gold tooth of Karna was given as donation to Krishna disguised as a Brahmin. This is evidence that in those times also teeth were restored by gold filling. Dentistry flourished during 600 BC when Shusutra the ancient surgeon of India taught it at Kashi. But for a long time dentistry plunged into darkness because of the Brahminical way of life. (Ahuja & Parmar, 2011)

But with Indian subcontinent getting colonised modern medicine was introduced in the country. The British introduced medicine to cater to the needs of the British employed in India. Most of the doctors at that time where trained in West and they rendered their services in India. To supplement the work of the British doctors, medical colleges were established in India in mid 19th century. The Dental care was available at the hospitals and dispensaries and Dental treatment was limited to the extraction of teeth. Dentistry was neglected for long and the oral health needs of the public were limited to hands of those who were unqualified. The first Dental college of India was set up in 1924 in Calcutta by Dr .R. Ahmed and in 1933 Nair College in Bombay and in 1938 Government Dental College in Bombay was established. (Teja et al., 2013)

Till 2012 for a population of over 1.2 billion, there were over 1, 80,000 dentists, which include 35,000 specialists practising in different disciplines in the country with the number of clinics as over 1.25 lakhs. The dentist population ratio is reported to be 1:9,000 dentists in metros / urban and semi urban areas and 1:2, 00,000 dentists in the rural area. The number of dentists is expected to grow to 300,000 by 2018 and the Dental specialists to 50,000. Every year more than 24500 Dental graduates are added to the list. The number of Dental colleges in India are around 297 and 140 of them provide courses for specialised branch of dentistry. The number of Dental laboratories in India is 5000 and 32 colleges offer diploma courses for Dental technician. With all the increasing number of the dentists every year and most of them practising in the urban area, Dental industry in India is expanding. Dental materials and equipments market annually is approximate 90 million US dollars. It is estimated that the Dental market will grow by 20% to 30% in the coming years and is seen as the area of interest for some financial group's investment. (IDA, 2012)

But if we take a look at the history of health provisioning, the primary health care approach which was envisaged in the year 1978 laid emphasis on the preventive, promotive, curative and rehabilitative services in health. It called for reducing the disparities in health care among the countries as well as within the countries. It required an intersectoral approach where various related departments could work in close cohesion and harmony with each other for the betterment of the health of the population. Not only did it place the onus of the health on the government of the countries but also emphasised community participation and individual efforts. It did not talk of the oral health and the relation to the general body functioning. No mention was made about addressing the oral health care needs of the population through primary health care approach.

Alma Ata declaration which talked of the intersectoral coordination, the rapid economic development after the new economic policy has not been accompanied by social development with special reference to the health sector. With health and education being given low priority the variations in health and customisation of finances is missing. Consequently the declining expenditure in the public sector resulted in the dependence on the private sector. (B.S.Ghuman, 2009).The basic oral health care like general health care has been out of reach and the proportion of people who have not been able to afford it has doubled in last ten years. This is due to the increased privatisation of health needs. The number of people who could not seek oral care because of lack of money has increased significantly between 1986 and 1995. (Nandkishore, 2010)

Report of the National Commission on Macroeconomics and Health 2005 provides the fact that 75% of the service delivery for Dental diseases, orthopaedic and cardiovascular services is provided by the private sector. There is low priority on preventive and promotive health with less than 0.5% of the total public health spending. The focus is more on the curative services where technology for delivering health services plays an important role. The holistic approach to oral health where various factors coordinate to a disease condition is mostly missing. (MIHFW, 2005, pp. 5,7)

Public health is largely concerned with epidemiology and the most neglected part of epidemiology has been oral epidemiology. Although the inequalities in oral health

have been documented yet the social inequalities have to be given more importance. (Baker & Gibson,2014)

Oral health is very important yet neglected component of the overall health status of the individual. Dental caries is the most common preventable disease in children. Although Dental manpower is available the utilisation of the services is low due to less patient awareness and increased privatisation of the Dental health services. Although the oral health policy of India was formulated years ago in 1985 it still stands the same and calls for need for implementation. Due to the lack of any such policy the oral health status of the individual stands compromised. The promises envisaged in the policy still need to see the light of the day.

This chapter on review of literature will trace the journey of oral health care through documented evidences of oral policies and reports. It will subsequently talk of the burden of oral disease and the need to address it as a public health problem.

It will be divided into three sections where the first section will talk about the burden of Dental diseases globally and in India.

The second section will lay stress on the place of oral health within public health. It will speak about the addressing of oral health issues in the policy documents of government of India. It also talks about the place oral health professionals find in the health system in India and how does it relate to increased oral health problems and lack of care in public health sector.

The third and the last section will throw light on the need to address oral health as a public health problem. It will talk of the relationship between general health and oral health and the relation of oral health with MDGs.

Section I. Prevalence of Oral Diseases: Global and Indian Scenario

The World Oral Health Atlas shows that 83 %(Upper Limit) of 6-19 years of people in India are affected with Dental caries (2003) and 19% of persons aged 65 and above are edentulous (2005). (Petersen,2003) The incidence of oral cancer in 2000 for men was 12.8 per lakh and for women it was 7.5 per one lakh in India. The Indian Council of Medical Research 2003 says that there has been an extensive increase in the

incidence of sub mucous fibrosis which can turn malignant and increase the incidence of oral cancer. National Commission on Macroeconomics and Health Report of 2005 provides the crude incidence rate for oral cancer as 11.8 per 1, 00,000 populations as compared to cervix cancer and breast cancer as 21.3 and 17.1. (MIHFW, 2005)

Oral cancer is the significant public health problem because it is not diagnosed at an early stage and the patients in low and middle income countries do not get proper access to the treatment .Oral cancer mostly affects people from low socio economic background and the delay in the diagnosis adds to the problem. Oral cancer arises from various parts of oral cavity and can be attributed to various factors and the treatment modalities. Among all the cancers it stands at sixth place in ranking and has annual incidence of over 300000 cases and out of which 62% are in the developing countries. Oral cancers constitute 30% of the total cancer whereas in US it represents 3% of all malignancies. This difference in pattern is due to the differences in the regional prevalence of risk factors. (Coelho, 2012)

Severe periodontitis which causes tooth loss is found in 5-15% of the population worldwide. Juvenile periodontitis which causes tooth loss during puberty is found in 2% of the population**.** (Peterson, 2003)

The three oral conditions appear in the list of 100 conditions recorded under the global disease burden project 2010.A total of 3.9 billion that is 55% of the citizens globally have untreated Dentalproblems and most prevalent of them is the tooth caries. (Binns & Low, 2014)

Apart from the various microorganisms responsible for the Dental decay and other oral problems there are various other factors which contribute to oral disease and its progress. World Health Report 2002 emphasised on reduction of the health risks by controlling the risk factors which contribute to non communicable diseases. The registrar general of India portrays that deaths due to NCD are about 42% of the total deaths .The objective of the global oral health program is to develop policies concerning oral health and place them within the sphere of the non communicable disease prevention programmes. The background and the basis for such program was that the oral health burden is largely increasing even in the developed countries. The burden of Dental caries is still prevalent in most of the Asian and the Latin American countries. Dental caries affecting 60 to 90% of the school children is the most

preventable form of Dental disease. In many countries which are still on the path of development Dental problems are left untreated or the tooth extracted because of lack of access to proper health services**.** (Peterson, 2003)It can be attributed to different living conditions, environment and lifestyle factors. It is forecasted that the incidence of caries will increase in the African countries due to changing pattern of food consumption and inadequate fluoride exposure. (Peterson, 2005)

Moreover lack of preventive approach in oral health has lead to increased expenses for maintenance of oral health in form of oral medications as well as oral health services. In 2004 $159 million were spent in US on medications and pain relief gels for oral problems in the drug markets .1.8 million people in California which is around 6% miss work or school days owing to Dental problems. In one fourth of population in UK Dental pain occurrence is seen every year. The period between 1997 and 2006 witnessed an increase of 66% in the number of children admitted for tooth extraction in the hospitals. In Sri Lanka 53% of six year old children in 2005 said that they experienced Dental pain in their lifetime while it was 88% school children in South Africa reporting for the same in 2001. Thailand saw 1900 hours of school days being lost per 1000 children in 2008 because of Dental problems. Only 3% reduction in tooth decay was witnessed in 12 year olds during last 40 years in industrialised countries. The important factors responsible for the same were socioeconomic development and use of fluoride tooth pastes.15% of dentists working in US, 22% in UK, 15%in France are of foreign origin. In Philippines two thirds of Dental graduates migrate to US and work not as dentists but other health professionals. (Oral Health Atlas , 2009)

The oral health problems are on increase in the low income countries because the facilities for treatment are less there. The middle income countries tooth extraction is seen as the treatment of choice and the incidence of oral diseases and pain have increased rapidly. Edentulism[1] due to severe Dental disease is seen in high income countries but it is eventually on decline due to improved Dental habits. One third of the old people in high income countries have problems with oral cavity. Particularly in rural areas in low and middle income countries the health care coverage is not adequate as in high income countries. The disadvantaged population have unhealthy

[1] The condition which is due to loss of teeth and when there are no natural teeth remaining is called edentulism.

habits and knowledge and attitude to oral health is lacking. Poor oral health leads to insecurity in jobs and decreased economic productivity. (Petersen & Kwan,2011)

Given the disease burden and the severity of the situation it very important to analyse the place oral health care finds within public health. Public health is not only confined to disease causation and its cure but also includes addressing various social, economic and political determinants of health. The increasing burden of Dental disease despite technological advances is an important subject matter of discussion. The position which oral health enjoys within these dimensions will be addressed in the following section.

Section II. Oral Health within the realm of Public Health

1. II. 1. Addressing oral health through policy documents in India

In 1951 the population of India was around 381 million. On March 2011, the population of India was 1.2 billion with 51.54% males and 48.6% females. India is second to China in population comprising 17.5% of the population of the world out of which 68.84% live in the rural areas and 31.16% in the urban areas. (MOHFW, 2011, p. 12)

In spite of constituting majority of the total population yet rural population gets a share of 10% of the health care budget. The building up of the infrastructure necessarily does not mean that the rural population has adequate access and willingness to visit the public sector for seeking health care. There is a top down approach which leads to the exclusion of the rural population and the bottoms up approach is followed but on papers. The rural population is already disadvantaged due to the lack of basic facilities not being provided by the government. The lack of health care adds to the already existing woes of the rural population. (Chillimuntha, Thakor & Mulpuri,2013)

The rural population has been seen to report fewer ailments when compared to the urban counterparts. Various reasons for the same can be lack of knowledge regarding the ailments, perceptions regarding the disease and non reliance on health systems etc. However, the awareness regarding the health problems has increased both in the

urban as well as the rural area as is given in the NSSO 60th round. (Bhandari & Dutta, 2007)

It is the most vulnerable who fall victim to the policies and their lack of awareness for health care. Those assessing the public health facilities mostly belong to the low socio economic background and their earning is spent on supporting the families for food and shelter and little or nothing is left of them to spend on health care. The lack of awareness regarding the health care facilities in the public sector pushes the population to seek advice and treatment from the local healers. (Patil, Somasundaram & Goyal, 2002)

The increasing privatisation and economic liberalisation has not only affected the administrative system as a whole but the health care provisioning had suffered a lot with special mention to the public health. The elements of prevention, treatment and rehabilitation are the basic steps for health care. While prevention is considered to be a state and an individual responsibility, it is the treatment element where a lot of private sector involvement is seen. The private care is customised according to the needs of the patients which can cater to their time and place demands. Due to the increase privatisation everyone is busy making profits and the national preventive programmes have to bear the burden of the same. Public sector provides limited services and the patients are forced to knock the door of the private healthcare when in terrible need. (Jindal, 1998)

The oral health which is already a neglected component of the health care finds limited mention in the public health settings. When we talk of rural population and its lack of knowledge regarding the facilities available in the public hospitals oral health the complementary approach to provide oral health facilities as well as environment is lacking.

India before independence envisaged a plan to provide preventive and curative health services to the rural population. The Bhore committee 1946 was constituted keeping in view the then existing public health facilities in British India. Before the organisers of the committee went forward to talk of health at administrative level, what they endeavoured was to chart out the health indicators of the country and their comparison with other countries of the world. The health indicators of British India proved to be appalling as compared to those in the developed countries of the world.

The communicable diseases were seen as a priority and the stress was greatly to improve maternal and child health indicators. The missing out of the importance of the oral health and its mention in terms of providing infrastructure in the initial documents is clearly visible in the Bhore and the subsequent committees on health. Although the need for addressing the social and other determinants of health was clearly envisaged to control communicable diseases its linkages with oral health was missing. It called for construction of a health system which could cater to the needs of urban as well as rural population. The Bhore committee gave the proposal of the establishing a system where both preventive and curative aspect of health was to be considered. It also drew the attention to the difficulties faced by the people of low socio economic background in accessing care in the public health facilities in India. Taking into account the general education of the masses, the social implications of the disease and the health education institutions established, the committee provided a meticulous plan for the setting up of institutions as per the population norms. The primary health care was seen as a basic right by Bhore Committee and since then various other committees have been established but the problem of infrastructure in healthcare apparently remains the same. (Kumar & Gupta, 2012)

Oral health has been largely missing from the policy documents and committee reports of the Indian government. Oral health found its place in the document of the Bhore Committee of 1946, where the report says that 1000 dentists practised in British India at the time of the compilation of report and that too served the wealthy population, giving a dentist population ratio of 1:300000 .The volume one talks about the neglect of the Dental provision to population as at the time only four Dental colleges were functional in India. The committee gave the proposal of mobile Dental units in the secondary unit structure of short term plan. The dentist population ratio was suggested to be 1:5000. The committee established the provision of dentists, Dental hygienists and Dental mechanic with secondary unit providing 2 dentists. (Committee, 1946, pp. 13,166)

The government there after made attempt to improve the status of oral health and provide recognition to the need of dentists for providing services to the population. So in order to bring oral health and establish the educational institutions for the same, the Dental Council of India was established on 12th April 1949 after the Dentist Act of 1948 was passed by the Parliament in 1948. It is financed by the funds from the

Government of India, Ministry of Health and Family Welfare and from other sources. One fourth of fees taken by the State Dental Council, inspection fees from the colleges and the application fees to set up new Dental colleges also contribute to it. The objectives of Dental Council call for maintenance of uniform standards of education in dentistry at the level of graduation and post graduation. It includes inspection of the Dental colleges for increase of seats and starting of postgraduate courses. It also prescribes the curriculum for the education and training of dentists and Dental hygienists and Dental mechanics. The standard of examinations to qualify for recognition is also set by the Dental Council of India. To achieve the objectives, the needs of affiliation of the Dental colleges to the university and uniformity in Dental education to live up to the prescribed standard has to be taken care of. (DentalCouncil of India, n.d.)

After establishing the Dental Council of India there were other committees which apart from stressing importance of general health provided importance to oral health care and its provisioning. The Mudaliar Committee of 1961 emphasised the training and education of the dentists and the Dental education apart from strengthening the then existing health infrastructure. (Committee L. M., 1959)The Srivastava Committee 1975 focussed on the establishment of Medical and Health Education Commission with representative from not only Medical council of India but from other councils including Dental Council. (Manpower, 1975)

Oral health received a little recognition when WHO directed its concentration on oral health in 1994 and the theme chosen for that year was “oral health for healthy life”. Two workshops were organised in 1991 and 1994 at Delhi and Mysore respectively and the recommendations of the oral health workshops conducted in 1984 in Bombay were considered. The core committee appointed by the Ministry of Health and Family Welfare in 1995 succeeded to bring to light ten point resolution penned by central council of health and family welfare. The resolution stressed on the need for the oral health policy to be the part of National Health Policy. At the time of passing of resolution 80 % of the children and 60% of the adults were suffering from Dentalcaries.30 % of the body cancers were oral cancers and 35% of the children were suffering from malocclusion. It called for the integration of the oral healthcare into the existing system of health care and set up educational institution for the betterment of the oral health. It did talk of the oral health promotion from the

community onwards as well as appointment of Dental advisor at appropriate position in director general of health services in the government hierarchy. It called for establishing of National institute of Dental Research and courses on Dental technicians and Dental hygienists to be taught in the Dental colleges. Recommendation for warning on the packs of sweets, retentive sugar and chocolates that too much eating sugar may lead to tooth decay should be displayed. (Lal et al.,2004)

In line with the recommendations of Bhore committee and to improve health of the population NRHM was launched in the year 2005 by the Government of India to establish a health system which could cater to needs of rural population. It called for relating the social determinants of health to the physical health of the population. Outreach workers were assigned a special role to connect to the rural masses and educate them regarding the various government schemes and importance of health care. It is provisioned to be the single largest programme being run for the primary health care approach. It emphasised the need for the raising the government spending on health care and increase the provisioning for health care to the rural population which did not differ much what was envisaged since independence. The skeleton which was constructed for NRHM primarily still lacks the basic architectural correction which it aimed at although things have improved for good but not as envisaged. (Gill, 2009)

The presence of infrastructure and making policies doesn't necessarily provide a positive picture of provisioning of oral health care. The place oral health professionals find within the public health system of the country needs to be addressed. The government is more focussed on the number of professionals but forgets to address the concerns of those working in public hospitals. The laxity on the part of the government to deal with the issues involving oral health be it infrastructure or dealing with the social determinant of oral health is evident in the public health sector. The following section talks of the place oral health professionals struggle to find in the public health sector. The kind of curriculum in Dental education doesn't address need for training to work in the rural areas is largely seen missing.

1. II.2. Place of Oral health professionals to address the disease burden

1. II.2.1 .Dental education in India

When we look into the public health system established in the country the participation of the oral health professionals has been very less. Public sector has ignored the Dental professionals as well as the Dental colleges have not been able to stress on the preventive aspect of oral problems. The change in the lifestyle which leads to modern health practises has certainly taken a toll not only on general health but also oral health. The training in the Dental colleges is not community based and it largely focuses on the treatment part of oral disease. (Parkash, Duggal& Mathur,2006)

Till 1966 there were only four government Dental colleges in India. This year witnessed the establishment of first private college in India. It was foreseen that the country would fall short of the Dental manpower in future which paved a way for the establishment of the private colleges. The private colleges are more than four times the government Dental colleges and the decline in the government institutes is due to the lack of funds by the government. The dentist population ratio in the urban areas is 1per 10000 and in rural areas it is one per 2.5 lakhs. The increase in the number of dentists in the private sector with public sector offering less vacancies increase the cost of the treatment. 32.7% of the Indian population is within the age group of zero to fourteen years which calls for increased specialists in the paediatric dentistry. The majority of the courses are in Prosthodontics and Orthodontics (19 and 18%) and paediatric gets 9% of the total share. It is an alarming situation that only 2% of the specialists are trained in the community dentistry.

In India public health dentistry is seen equivalent to community dentistry with very little efforts being made to relate to the concept of public health. The community branch requires providing services to the population residing in rural areas through check up camps. But this curriculum is not being enthusiastically followed in the Dental colleges. It is largely seen as the means to provide a post graduate degree in the subject of Community Dentistry with little interest in providing oral health services to rural population. The role of the Community Dentistry department is confined to the referral of the patients to other department. The curriculum is not very well defined to address the preventive needs of the population through these oral health specialists. The need for these specialists is very significant when the major

part of the Indian population is residing in the rural area. The government hospitals which lack dentists and Dental specialists are also in the need of the Dental auxiliaries. In 1990 there were 30000 registered hygienists and 5000 laboratory technicians. But now the situation has become worse with the decrease in the number of colleges for hygienists and technicians from 40 in 1990 to 20 in 2000. (Nandkishore,2010)

Till 2009 total number of registered Dental surgeons with state and central councils was 104603. In Punjab the numbers of dentists were 6996 in 2009 and 111843 population being served per govt dentist as compared to 7256 per govt doctor in 2005**.** (DCI, 2009)

Despite Dental manpower being available in India the utilisation of services is low due to the high costs involved in the oral health care, thereby widening the gap between various socioeconomic classes. (Singh &Purohit, 2012)The poor in the developing nations are unable to seek basic treatment for oral care. Dental fears and pain are important factors for patients to feel reluctant to seek Dental treatment. (Mehrstedt,Tonnies& Eisentraut, 2004)

1. II.2.2Government's response to population's oral health needs

A cross sectional study done in Chandigarh 2008 showed that the people from the rural areas preferred government set up more than the urban counterparts. If they denied oral care it was because they didn't care oral problems to be that important or they lacked time and preferred self medication. The long waiting tie for the patients at the Dental facility could be due to the increased workload on the dentists. There was no complete denture facility and the lack of assistance was clearly visible in the Dental clinics in government set ups. The lack of provision of the Dental material as well as the assistance required was lacking. People usually do not report until the Dental condition causes any problem and routine check up is largely missing in case of oral health checkups. (Verma et al.,2012)

This lack of the oral health system to address the oral health needs of the population in the public sector needs serious amendments. The marking of the boundaries for oral health needs serious consideration and its percolation into the general health system is an important issue to be taken into consideration. When we talk of oral health system,

it is no different from the health system .In fact it lies within the health system and shares the components of the same.

Three broad objectives of the oral health system are:

1. Prevention of future oral disease and treatment of the present oral illnesses

Given the disease burden the first objective calls for the adoption of preventive strategies and curbing the oral diseases in the early stages. It would not only save the patient from unnecessary trauma of Dental treatment but also be economically reasonable.

2. Management pain associated with oral disease and document new methods of prevention and treatment

The curative services provided should be able to alleviate the pain and help the patient to restore normal oral health. Moreover the new advances in Dental health should reach the general public at the costs affordable to them.

3. Improvement of present treatment modalities and treatment and elimination of existing diseases using the technology

The technology should be used to provide better services and the access to it even by the practitioners should be made easy. The government should make efforts to provide on job training to the Dental staff and try to imbibe the advances even in public sector hospitals. (Park, 2012)

To prevent oral disease and to spread awareness, participation of outreach workers is important .The outreach workers have been entrusted with the responsibility of various programmes distribution of medicine in case of minor ailments maternal and child health village and sanitation but nowhere has the mention of oral health been made. ASHA workers under NRHM are the first point of the contact with the community and they are at an important position to provide information and education on oral health to the community. In a study in six PHCs on ASHA workers most of them did not know how to identify Dental caries. Almost negligible number of them had knowledge on the effect of the Dental health on new born. Referral for the oral health was only done by 12% of the ASHA worker. The majority of the ASHA worker lacked basic idea about oral disease. (Mohanty&Prakash, 2011)

To stress on what place oral health finds under NRHM it is important to stress on its structure and how it caters to oral health needs of population. As documented in the National Rural Health Mission in rural health care the first point of contact between the community and health care system is the Sub Centre. The Sub centre is manned by one health worker male and one female each. The staff is entrusted with the responsibility of providing services and raising awareness among the community regarding various disease profiles. While the health workers are doing their duty of providing services there is no formal training for these workers to recognise any Dental ailments. Although provided with a few medicines for treatment of minor ailments no focus on oral health is seen at these levels.

The Primary Health Centre has one medical officer and any patient with complaints of oral cavity is left at the mercy of the medical officers. At the primary health centre there are no direct providers for Dental health and patients are referred to CHC for the same.

The Community Health Centre is the point of contact of the patient with the dentist. There are no Dental auxiliary available at the level of CHC and it certainly affects the working of the dentist. No report of the presence of any Dental auxiliary is mentioned in the Rural Health Statistics 2012.

The numbers of the Sub centres, PHCs, CHCs have increased from sixth plan to the eleventh five year plan**.** (MOHFW, 2013)

Despite great stress on the infrastructure building by the public health institutions the goals to be achieved are still far behind. Lack of any incentives for the rural postings, issues of skill up gradation, lack of support system for career up gradation, sincere transfer policies hold back the progress to be made in the near future and need serious policy attention**.** (Nandan, Nair& Dutta,2007)

In order to ameliorate the problems being faced on account of the uneven spread of medical and Dental colleges in various parts of the country, National Health Policy 2002envisaged the setting up of a Medical Grants Commission for funding new Government Medical and Dental Colleges in different parts of the country. It also talked of Medical Grants Commission funding the up gradation of the infrastructure

of the existing Government Medical and Dental Colleges of the country, so as to ensure an improved standard of medical education.

The total budget proposed for the National Oral Health Care Programme in the 11th five-year plan was Rs.182.09 crores. (Nandkishore,2010)

The core strategies in the twelfth plan (2012-2017) for oral health lay great emphasis on promotion of access to oral health and providing trained Dental hygienists or nurses who do not only provide oral health education but also provide basic procedures of oral health. (Welfare D. G., 2011)The up gradation and strengthening of CHC as per IPHS standards and provisioning of staff and equipments for oral health care are also envisioned in the plan. The supplementary strategies talk of improvement in the Dental education as well as collaborating with the private players for the same.

The elaborate plan for the promotion of oral health includes identification of the problem and timely referral by the ASHA workers which can be included in their training module. The training at the block district and state level should include the dentists posted at the government hospitals and Dental colleges. The training can be in the form of audiovisual aids and training module etc. Cash incentive to ASHA workers for referral of the Dental patients to CHC should be provided. The resource personnel under NRHM should be provided with IEC material as posters, charts and booklets under separate workshops which can be distributed to the outreach workers.

Currently in the CHCs the Dental services have not been included under the assured services in the IPHS 2012 standards. An optional Dental clinic should be set up under IPHS in the outpatient department. Compulsory oral health needs to be provided at the level of CHC.

PHC is the first point of contact of community with the medical officer. The preventive as well as promotive services are to be stressed at the level of PHC. The appointment of the Dental hygienists at the level of PHC would help in providing atraumatic restorative services and hence curb the disease at an early stage.

When we talk of the global agencies involved in oral health care there are various organisations which work for the uplifment of oral health.FDI is a nongovernmental organisation based in Geneva consisting of 200 members of associations and groups

from more than 130 countries and it represents over one million dentists. It aims to harness the power of all the member nations for the common oral health worldwide. Every year a Dental parliament is conducted to define the future of dentistry globally**.** (FDI, 2009)

The other international organisations which play an important role in the oral health as the WHO, International Association of Dental Research and International Federation of Dental Education Association and national organisations are powerful. These organisations do not have a common agenda and they work independently of each other. Although WHO provides some policies but they are not developed in an inclusive and participatory manner and translation according to local differences is difficult. An international civil society apart from the national Dental associations does not exist. The Dental aid organisations provide little or no help to the low and middle income countries. For oral health there are no think tanks for policy making and political analysis like they exist for other disease situations. (Benzian et al.,2011)

The oral health status is important for every age group and from the statistics available the Dental problems are on increase. The relation of the increase in the Dental problem and the relation to the available infrastructure need to be established. The Dental problems and the Dental industry are on rise which needs to be considered seriously. The specialists are lacking in the public health sector where paucity of staff affects those seeking care. Various actors responsible for providing oral health lack cooperation and the oral policies do not address the factors responsible for the same. The organisations work independent of each other and the success in one country is not percolated to other. The low and middle income countries still face the burden of oral diseases. The lack of incentives in the public sector and mushrooming of private sector fails to provide motivation to the dentists to work in rural areas. The private Dental colleges outweigh the number of government Dental colleges and the fee charged is very high in private colleges. Those spending enormous money to get admission in the Dental colleges prefer to earn more and private sector offers more money. Many of those working in the public sector work in private sector as well and compromise on the professional ethics. This effects the patient inflow as well as the dentists are less motivated to provide services in the government set up. The blueprint for health provisioning in the public sector has been reduced to providing only curative treatments. Those practising conveniently chose to ignore the ramifications

needed in the policy and provisions laid down for oral health. There is an immediate need to deal with the present oral health status and provisioning of services. The need for an immediate action for oral health is discussed in subsequent section where the relation of oral health with general health is explained.

Section III: Oral Health's Relation to Public Health

1. III.1.Relationship of oral health and general health

Although oral problems have received acknowledgement from the worldwide communities for being a disease burden yet very little is being done to bring into action the policy decision. There is known burden of oral diseases and their curative treatment is done. The policies so made are not translated into what is largely required for the upliftment of the oral health in the field. The risk factor and the social determinants of the oral health are important for the prevention of the disease which can reduce treatment costs and prevent pain and trauma. However the decisions for oral health are made neglecting these risk factors. But the recognition of the oral health within the realm of public health is still not significant. (Pau, 2012)

Oral health of the individual cannot be contributed only to the presence of microorganisms and viewing it in reductionist approach. The determinants of oral health can be broadly classified as those that affect general health as well as those which are more specific. The behaviour related to oral health and habits as smoking, diet, alcohol, injury and use of oral health services contribute to healthy mouth. The social factors of norms and beliefs and knowledge regarding oral health services and individual factors of age sex and genetic predisposition are important determinants of oral health. Economic and political conditions of socioeconomic status and access to oral health care and information are another set of determinants which establish the oral health of an individual. (Prevention and Population Health Branch, 2011)

Oral health cannot be seen apart from the general body health and the global efforts to promote the oral health are to make sure that this portion of the body is not neglected. When we talk of the NCDs oral cancer finds a major place in it. The burden of the oral health problems can incur a huge economic loss to the individual as well as the

government. The economic loss is not only attributed to the treatment for the oral disease but also the missed days at workplace which affects the productivity of the individual as well as the nation. (Peterson, 2003)

Oral health affects the general body conditions and general body conditions affect the oral health and a lot of literature is available which talks of the relationship. When we talk of the maternal and child health so vigorously in the public health field little do we mention of the effects of breast feeding on the oral status of the child. Not only does breast feeding prevent from the caries experienced by the infant but it also affects the craniofacial growth and development. Little or no mention in the public health is made of the oral health effects of breast feeding. (Salone et al., 2013)

An estimated 8.1 million under five children are affected and 0.6 million deaths are attributed to acute malnutrition. One in eight people across the globe suffer from chronic undernourishment. (Dasgutpa,Ahuja&Yumnam, 2014).When the children are suffering from nutritional disorders the focus on oral health becomes all the more important. The neglect of the oral health when addressing policies and interventions for malnourishment is seen in the field. Lack of proper oral health and Dentalcaries prevents the children from intake of proper food and hence adds to the problem.

There has been recent reporting of the differences in the weights of the children with nursing caries where it has been shown that caries cause lesser weight increase than those without it. Restoration of the oral health has seen to provide a more normal growth pattern than previously. Although pain and infection are one of the immediate effects of nursing caries it does effect growth and development. (Acs et al.,1999)

There are studies which point to the fact that the malocclusion and other oral problems affect the self esteem and social relations. The social impact of the various other diseases has been documented properly but from the view of an oral health problem a lot is still missing. The missing of schools and lower self esteem in children suffering from malocclusion needs to be accepted and worked at. (T.Reisine, 1985)

With chronic obstructive pulmonary disease being attributed to the history of prolonged smoking the relation of periodontal disease and pulmonary health has been documented. The lodgement of the bacteria in the oral cavity can lead to the respiratory tract infections and hence COPD. (Deo et al.,2009)

Diabetes has been seen to affect the oral mucosa and salivary glands and painful oral neuropathies can be produced. (Bassim,Ward&Denucci, 2007)

The deficiencies of vitamin A, B, C, D and protein energy malnutrition have an effect on the oral health. In India when the problem of malnutrition is widely prevalent the issue of oral health is not given a separate talk. Malnutrition does not only affect the general well being of the body but also plays an important role in the health of oral cavity. But the role of a dentist in the multidisciplinary approach to address the problem of malnutrition is still questionable. (Sheetal et al.,2013)

There is no evidence based program for the promotion of oral health where oral health needs to be integrated with the general health of the body. It is not linked with the preventive aspects of health care and the population based approach in the rural health can certainly help to bring down the oral health problems. Oral health has been reduced to providing curative services and the problems related with oral cavity are seen in silos and away from the body as a whole. The general physicians as well as the dentist have been assigned roles where no inter relationship has been established between the two. When a lot of literature is available on the relation of oral health to general health, no rigorous efforts have been made to address the issue in the field. The various risk factors which are common to other diseases are not taken seriously in oral health and need for addressing them is considered unnecessary in the field.

The public health approach to oral health as mentioned above is lacking and the need for linkages between the general and oral health in routine OPD is not established. There has been great stress on the Millennium Development Goals (MDGs) and their achievements as a mark of success of various public health programs being run in the country. There are several goals of MDGs which can be directly linked to oral health .The section on MDG and oral health will provide a new approach to oral health which is uncared for and stress on the importance of addressing it seriously as a public health issue.

1. III.2.Millennium development goals and oral health

In New York in the year 2000 the representatives from 189 countries met to agree to the millennium development goals set forth by the United Nations. Since its inception a lot has been written and said about the goals and the status of their achievement

worldwide. The attempt to link oral health to the MDGs provides an interesting insight into the public health importance of the issues of oral health.

MDG1: To eradicate extreme poverty and hunger

The immune response of the body depends a lot on the ability of a person to obtain proper food and nutrition. Any problem related to oral health in form of malfunctioning, cavities, and edentulism can affect mastication. There is economic loss due to missed work days and children cannot concentrate on their education because of Dental disease.

MDG2: To achieve universal primary education

The pain in the tooth due to Dental caries in children mostly leads to missing school and thus effecting the education and poor show at school level. Moreover the child is not able to concentrate while in school due to tooth discomfort.

MDG3: To promote gender equality and empower women

The empowerment of women through education will help mothers to be more vigilant regarding the oral health of their children and healthy children will help them to give time to other activities and be more productive.

MDG4: To reduce child mortality

Many harmful customary practises can lead to Dental infection in infants and the provision of compromised oral health care can further increase the risk and give rise to life threatening conditions.

MDG5: To improve maternal health

There are many studies which show that if the maternal oral health is poor it can lead to low birth weight babies and replicate the same in their children. Uplifting the oral health of the women will result in improved general health.

MDG6: To combat HIV/AIDS, malaria and other diseases

Oral infections in patients of HIV/AIDS can serve as an early sign of the disease infection. Sterilisation is very important during Dental treatment to prevent any cross

contamination. More than curative preventive aspects in Dental disease can prevent the treatment costs.

MDG7: To ensure environmental stability

The advances in technology and various measures to control infection all add for sustaining the environment, this in turn leads to maintenance of general health and oral health.

MDG8: To develop global partnership for development

For promotion of oral health the partnership among the stakeholders is a must. It will help to reduce the burden of the oral disease especially in the vulnerable populations.

(FDI, 2004)

Oral health is not connected to these MDGs which further contribute to the gaps in the oral health status. Lack of sufficient indicators and data as found in other diseases seriously hampers the valuable framing of messages and influence in support that serious justification for the priority of oral health is not done.

Conclusion

Oral health has always been compartmentalised and the relation with the general health if established is on papers. The importance of a healthy mouth and the need to inculcate healthy oral habits should be among the priority list of the government. Oral problems are easily preventable and the prevention costs are very low as compared to the treatment cost. The focus of the government on the oral health has never been so dynamic. The drainage of the dentist either to the private sector or overseas and their unwillingness to work in the public sector adds to the problem. The lack of incentives for the dentists and the lucrative private practise prevents them from working in the public sector. The policy is on papers and nothing substantial has been done to put into practise the policy recommendations. The sociological concept of the Dental disease and the behaviour of the individuals also need to be studied in detail and put into practise. There is a dearth of the doctors who chose to practise in rural India and serve to the rural community. Lucrative offers in the city and the urge to make money pulls the doctors to the city life. The rural pollution is left at the mercy of the quacks or Registered Medical Practitioners (RMPs). The dentists chose to

practise in the private clinics or migrate out of India rather than serve the rural population. The patients as well as the dentists lack the motivation for taking care of the oral health .With the changed dietary patterns the Dental disease are on rise rather than experiencing a decreased prevalence. The lack of proper hygiene practises in the rural India and lack of awareness on the Dental diseases are a contributing factor to the development of the Dental conditions. The lack of preventive behaviour for oral health is a great set back and leads to increase in the Dental diseases.

CHAPTER 2: RESEARCH METHODOLOGY

Introduction

This chapter will highlight the research methodology and profile of the study area. The section on research methodology will define the conceptual framework of the study, research questions, objectives, research design of the study, sample selection, tools used for data collection and limitations of the study.

Research Methodology

2.1. Conceptual framework

In India no separate national survey has been conducted to understand the magnitude of the oral health problems though there have been studies highlighting the prevalence of oral disease.

Dental caries and periodontal problems have been considered as the most important yet preventable form of oral diseases and in most of the industrialised countries Dental caries affects 60% to 90% of the school going children and majority of adults. Oral cancer is on increase in the developing nations and in India the incidence of 12.6 per 1000000 of population. (Peterson, 2005, pp. 662,664)

Traditionally oral health has been limited to the tissue pathology and no attention is paid to the social implications of the disease. Typically Dental problems have acute character and are of short duration and treatable. Seldom is a Dental problem seen as life threatening and that is why other chronic conditions are given more importance in public health by policy makers.

One of the other disadvantages is that in India, health is a state subject and most of the states in the country are suffering from financial burden for providing basic survival rather than providing quality health care. Mostly the health care is looked after by the private sector and individual practitioners including non-formal medical facilities. The treatment cost for oral diseases is high and it has not been possible for any government institution to provide Dental services to all. Report of the National

Commission on Macroeconomics and Health 2005 provides the fact that 75% of the service delivery for Dental care as well as orthopaedics and mental health is provided by the private sector whereas 40% of the communicable diseases and deliveries are done in private sector. Preventive and promotive health is low on priority and out of whole public health expenses gets a share of less than 0.5%. (MIHFW, 2005, pp. 5,7)

There have been a number of studies which point to the fact that the status of oral health has an important impact on the general body functioning and social behaviour. The relation of breast feeding and Dental caries, periodontitis[2] seen as risk factor for the development of disease like COPD(Chronic Obstructive Pulmonary Disease) , CVD(Chronic Vascular Disease) premature deliveries, provide enough evidence for the policy makers to concentrate on the provision of oral health. The psychological impact of malaligned teeth has been known to affect the social life and psychology of the children. The improper weight gain and Dental caries relationship is very important in public health when there has been lot of stress on malnourishment in children. (FDI, 2004)

This background of the study has helped the researcher conceptualize the problem in a systematic and connected manner. The increasing number of dentists and their mismatch in curbing the burden of Dental disease is a matter of great concern. The policies and plans laid down by the government to address issues of oral health fail to address the problem in a comprehensive manner. At the level of the available manpower, to cope up with the massive rush of the dentists, proper infrastructure is required. The dentists working in public health settings fail to deliver services if proper infrastructure is missing. Not only it affects the provision of care and state of oral health, it also establishes a doubt in patients regarding oral care in public health settings.

On the other hand the most important factor should be the ability of the system to deliver care. Only two percent of the dentists in India are being trained in Community Dentistry or Public Health Dentistry whereas in India most of the population lives in the rural areas. Thus the experts in Public Health Dentistry are lacking in number as

[2] Periodontitis is the inflammation of the supporting structures of the tooth which includes the gums and the bones supporting the teeth.

well as proper training and they cannot perceive the importance of prevention and their services towards the community.(Nandkishore,2010)

We do not have organized school oral health education programmes so that children may learn right oral health practices from the beginning. Over and above fastest growing population, rapid westernization and lack of resources are increasing the burden of oral diseases in our country. There are various lessons learnt which point to the fact that oral health has been a neglected area.

2.2. Research questions

1. Where is oral health situated within the realm of public health?

2. How has the subject of oral health been addressed in the policy documents by Government of India?

3. What is the availability of the components of health service system (human resource, education and infrastructure) in oral health in state of Punjab?

4. What is the state of oral health care in public health settings in Jalandhar District of Punjab?

2.3. Broad objective

To study the state of oral health services in Punjab with respect to its position in public health settings in District of Jalandhar.

2.4. Specific objectives

1. To study the state of oral health care in public health settings in Jalandhar District of Punjab.

2. To study the factors responsible for the present state of oral health care in the public health settings in Jalandhar District of Punjab

3. To study the perception of dentists and the patients regarding the present state of oral health care in public health settings in Jalandhar District of Punjab

2.5. Research design

The study is exploratory in nature which helps to achieve the desired objectives. It uses mixed methods, both qualitative and quantitative in nature, where the data and the narratives together explain the state of oral health care in public health settings in District of Jalandhar.

2.6. Study area

2.6.1. Selection of study area

The District of Jalandhar is divided into ten blocks and each block has one CHC. Four CHCs were chosen purposively from the list of the CHCs available. The need for purposive sampling was that as mentioned in the IPHS 2012 the dentists and Dental infrastructure are present only at the level of CHCs. The PHCs and SCs lack any dentist or Dental infrastructure. Of the four CHCs selected the CHC at Kartarpur is the oldest established, CHC at PAP (Punjab Armed Police) is the newest established, CHC at Kalabakra has a Dental specialist and the CHC at Adampur has five Dental clinics around it. When the dentist in CHC is on leave or when there is an x ray needed the patients are sometimes forced to visit these clinics and seek treatment. These variations provided the researcher to look into the patterns of treatment and health seeking in the concerned CHC. The District hospital Jalandhar was chosen to understand the elaborate procedures in oral health being performed there.

2.6.2. Selection of respondents

Each CHC has one dentist, one Chief Pharmacist and a Senior Medical Officer (SMO).Interviews with Dentists, Chief Pharmacists and the Senior Medical Officers (SMOs) working in the CHCs through a semi structured schedule were completed. The pilot study gave an idea about the daily OPD to the researcher where it varied from ten to fifteen patients per day. The patients spent most of the time in the waiting area and it was easy to interview them when they were not under any Dental procedure. So, five patients from each study site present in the waiting area were chosen to check their perception about oral health. One Multipurpose Health Worker was available in the CHC during time of visit and was interviewed informally. The District Dental Health Officer (DDHO) is responsible for the administrative capacity of the oral health in the district. An interview with her was done to look into the

administrative loopholes of the oral health services. The oncologist who was interviewed in the private hospital where the cancer patients are referred by the dentists in the District Hospital Jalandhar was selected because he was heading the department of head and neck oncology.

2.7. Source of data collection

The data was collected from the primary as well as secondary sources. The primary sources were the interviews and observations and using various tools for the study. The secondary source of data collection was from the review of literature relevant to the topic of study.

2.8. Tools of data collection

2.8.1. Checklist

The checklist enumerating the requirements set up by IPHS 2012 for the Dental clinic in the CHC and district hospital was prepared .It aimed at highlighting the availability of the infrastructure as well as various procedures being done at the level of CHC for Dental patients. The checklist was adapted from the Indian Public Health Standards 2012. It provided for the availability of the equipments and the manpower (dentists, Dental hygienists and Dental technician) at District hospital (Annexure I) and CHCs (Annexure II) .The procedures to be performed in the Dental clinics are documented in the IPHS 2012 as well as the type and kind of instruments to be used for Dental procedures are specified.

2.8.2. Semi structured schedule

A semi structured schedule was prepared separately for the Dentists (Annexure III), patients (Annexure IV), Senior Medical Officers (Annexure V) and Chief Pharmacists (Annexure VI). The interview schedule aimed at exploring the state of oral health care and the perceptions of the patients and dentists in particular regarding oral health care and its provisioning.

2.8.3. In depth interviews

In depth interviews through informal conservations were done with District Dental Health Officer responsible for the administrative capacity of the oral health in the

district of Jalandhar. The surgical oncologist involved in providing care for the cancer patients in the private settings was also interviewed to understand the apathy of the patients of oral cancer and the differences in provisioning of care at private and public level. It helped the researcher to understand services missing for oral cancer patients in public health settings in district of Jalandhar.

2.8.4. Observations

Observation plays an important role when the study form is exploratory in nature. The time spent in the public health settings and in the Dental clinic provided an idea about the state of provisioning as well as seeking of the oral health care and lead to the enumeration of the gaps in the study. It was also relevant in looking at the interaction between the care givers and care seekers at different levels.

2.9Process of data collection

2.9.1 Pilot study

The checklist and the interview schedule were piloted in the CHCs in District of Jalandhar from 16th October 2014 to 30th October 2014. Based on the pilot, necessary modifications were done in the interview schedule and tool and thereafter they were finalised for the study.

2.9.2 Main study

The main study was conducted in four CHCs of Jalandhar District at Adampur, PAP, Kartarpur and Kala Bakra and District hospital and Patel hospital. The time period for data collection was from 18th November 2014 to 28th of December 2014. During this time there were revisits done in the CHC Adampur and to the office of the Chief Medical Officer due to the concerned officials on leave during previous visits. This period involved collecting the quantitative information regarding the total Dental OPD and the procedures done in the hospitals. It also involved interviews with the respondents regarding their perceptions about oral health and their insights into the services being provided at the public health settings in District of Jalandhar.

2.10. Process of data analysis

The quantitative data included the presence of manpower as well as Dental procedures being performed in the Dental clinics in public hospitals in Jalandhar. It was analysed by establishing the percentages out of the collected data and then the similarities and variations across public hospitals in Jalandhar were analysed. Various themes were taken out from the interviews of the patients as well as the officials and the perception of the patients as well as the providers was analysed. The various factors which emerged from both the qualitative and quantitative data are enumerated and links established in the chapter on discussion.

2.11. Ethical considerations

Prior permission was taken from the concerned authority in the hospital to interview the manpower involved in oral health care. The interviews with the dentists, SMOs and pharmacists were taken with prior appointments. It was seen that it did not interfere with their routine wok at the facility. All the interviewees, including the patients at the facility were explained the reasons for interviewing them. If at any time it was observed that the patient was not feeling comfortable in providing the necessary information the interview was stopped without further bothering the patient. The data so collected was used for purely academic purposes.

2.12. Limitations of the study

Despite prior appointments with the dentists, there was limitation of time to carry out the discussion in detail. The inflow of patients and the clinic environment was not very favourable to the researcher. There was no separate place to interview the dentists and the patients were not ready to talk due to lack of time. The researcher felt that the hospital staff and the dentists themselves were reluctant to talk openly about the loopholes of the services being provided .In few places Senior Medical Officers were not very cooperative to sit and discuss the neglect of oral health care. Data regarding School Health services in context of oral health was not maintained in any CHC expect one. Moreover the AMOs who were entrusted the responsibility for school health were newly recruited and still undergoing training. So the data for each CHC for School Health Program was not available with them. The data was collected from the Chief Medical Officer (CMO) office. The data so provided was not

organised and the reporting to the CMO office was not complete as far as school health data was concerned. The researcher made an effort to analyse from whatever data was available in the field.

CHAPTER 3: STATE OF ORAL HEALTH CARE IN DISTRICT OF JALANDHAR

Introduction

This chapter aims to rationalize the objective of state of oral health care in the District of Jalandhar in Punjab. It will highlight the District level health system with respect to provisioning of oral health services. Not only the chapter provides the data collected by the researcher but also analyses and provides arguments where the researcher tries to relate the observations and facts with narratives from the respondents. The chapter will describe various levels of health provisioning and the programmes available for oral health.

The chapter is divided into three main sections:

Section I deals with the data collected from the various public hospitals. It talks of the Dental procedures done, infrastructure and manpower available in the District hospital as well as CHCs for oral health care in Jalandhar. The variations and the similarity in the patterns of data are discussed and analysed.

Section II of the chapter deals with the School Health Programme and its status in District of Jalandhar.

Section III discusses the cancer scheme being run by Punjab government and data available from the private hospital which is empanelled under District Hospital Jalandhar.

Profile of the study area

The term Punjab consists of two words “Punj” meaning five and “ab” meaning water. The state of Punjab is seen as the land of five rivers. Punjab as specified in the census of 2011 has the population of 2, 77, and 04,236 out of which 52.8% are males and 47.2%% are females. Punjab enjoys a literacy rate of 76.7% and sex ratio of 893 per 1000 males. (Punjab Population Census Data , 2011)

Punjab is seen as one of the prosperous and richest states of India. Around 5% of the growth rate has been seen in Punjab which is highest among the Indian states in the past thirty years. But in the recent times the state economy's growth has started to decline. The state lags behind on development in the social sector with particular mention to the health sector. The Human Development Report of 2004 tells that the public health investment in health in Punjab is very low. People are forced to avail unregulated and expensive private services due to lack of primary health care. Very little is allocated to the primary and the secondary health sector by the state government. The expenditure on the medical and public health out of the state expenditure is 0.79% of the state income which is below the national average of 0.99%. (Ghauman, 2005)

Among the total health institutions in Punjab in 1966 rural health institutions was 55.4%which increased to 64.9% in 1973, 79.1% in 1980 and 81.6% by 1990. Additional stress was laid on the development of urban infrastructure which increased from 18.4% to 20.3%.The share of the state government, local self governments and voluntary organisations was 71.6%, 13.3% and 15.1% in 1966 which was 96.6%, 1.1% and 2.3% in 2001. The roles of local self government and voluntary organisations have decreased in the health sector to almost negligible. The private sector in health care has expanded considerably to cater to populations in both rural and urban population .The private health expenditure out of the total health expenditure is 75%. One third of the expenditure is on secondary and tertiary sector and the rest goes to the curative services at the primary sector. No insurance cover is provided and most of the expenditure on health is out of pocket. The rise in the per capita income also gives rise to the expenditure on health care in private sector being 1.47% for one percent rise. More than 50% of the hospitals belong to the private sector. The information on actual number of the private clinics in Punjab is not available despite the private sector playing a big role in providing patient care. (Commission ,n.d.)

According to the Rural Health Statistics 2012 ,the number of Sub Centres, Primary Health Centres and Community Health Centres in Punjab are 2951, 449 and 132 respectively. Most of the buildings from where these centres are run belong to the state government. Although the data on the general practitioners is accessible but data

on the total number of dentists working in the private and public sector in Punjab is not available. (MOHFW,2012)

The Punjab Dental Council (PDC) is the body which regulates the state working of the Dental practitioners. The number of dentists registered as enumerated by Punjab Dental Council till May 2012 are 9370 in part A and 933 in part B and 279 in pepsu (union of eight districts o Punjab) Part B of the Council. Similarly Masters of Dental Surgery (MDS), Dental hygienists and Dental mechanics are also registered by Punjab Dental Council. So far 235 Dental mechanics and 250 Dental hygienists are registered with the Council. The Council also caters to the annual registration of the newly passed out dentists, Dental hygienists and Dental mechanics every year. (PDC, 2015)

Profile of the study district

Jalandhar district is named after a demon king, who is mentioned in Mahabharata and Puranas. Jalandhar also finds mention to be capital of kingdom of Lav son of Rama. Some say that it has derived its name as being "Jal Andar" meaning under water as it is located between Sutlej and Beas. (Administration of Jalandhar,n.d.)

According to Census 2011, Jalandhar has population of 21, 93,590 out of which 52.2% are males and rest females. Out of the total population for Jalandhar district in 2011 census, 52.93 percent lives in urban regions of district. (Census 2011 Data).Given the population centred in the urban areas and mushrooming of lot of private practitioners, it would be interesting to know the status of the oral health care in the public settings in Jalandhar. It is seen as the NRI belt of Punjab. The population migrating overseas seeks the health services back home and the ability to pay makes the cost of health services to rise.

Section I: Variations within and across the Public hospitals in oral health services in Jalandhar District

As mentioned in the review of literature India's 68.8% population stays in the rural areas which are devoid of necessary health care. NRHM was started in 2005 with a mission to provide preventive and curative services to the rural population. To stress on what place oral health finds under NRHM it is important to stress on its structure

and how it caters to oral health needs of population. As documented in the National Rural Health Mission in rural health care the first point of contact between the community and health care system is the Sub Centre. The Sub centre is manned by one health worker male and one female each. The staff is entrusted with the responsibility of providing services and raising awareness among the community regarding various disease profiles. While the health workers are doing their duty of providing services there is no formal training for these workers to recognise any Dental ailments. Although provided with a few medicines for treatment of minor ailments no focus on oral health is seen at these levels.

The Primary Health Centre has one medical officer and any patient with complaints of oral cavity is attended by the medical officers. At the primary health centre there are no direct providers for Dental health and patients are referred to CHC for the seeking Dental care.

The Community Health Centre is the point of contact of the patient with the dentist. There are no Dental auxiliary available at the level of CHC.

The numbers of the Sub centres, PHCs, CHCs in India have increased from sixth plan to the eleventh five year plan**. (**MOHFW, 2013)

The Indian Public Health standards 2012 have set up a list of guidelines for addressing the issues of manpower and infrastructure in the public health facilities. With this background of increase in the number of public hospitals for rural areas and the guidelines established by IPHS 2012 the researcher will address the availability and non availability of the facilities in oral health care in public hospitals of District Jalandhar.

3. I.1.Infrastructure and procedures performed for oral health care in District hospital, Jalandhar

> As documented in IPHS 2012 "*The term District Hospital is used here to mean a hospital at the secondary referral level responsible for a district of a defined geographical area containing a defined population."*

The Indian Public Health Standards (IPHS) 2012 have documented the requirements regarding the infrastructure to be present in the Dental department, the manpower to

be available and the procedures to be performed at the level of District hospital. In the IPHS 2012, a list of 22 Dental procedures to be performed is enlisted at the district hospital. These procedures range from simple fillings to wiring in case of jaw fractures as well as treatment of malocclusion. The dentist is required to treat the patients needing prosthesis in the district hospital whereas those suffering from maxillofacial surgeries[3] and neoplasms[4] can be provided preliminary treatment and referred. The manpower to be appointed in the district hospital is according to the availability of beds in the In Patient Department (IPD). In India the population of a district varies from 50,000 to 15, 00,000 and the size of a District on an average is taken as one million .If total number of admissions are taken as one per 50 persons the total number of patients admitted per year would be 20,000(10, 00, 000/50) and the number of bed days per year would be 20,000* 5(average length of stay in a hospital is 5 days) which is 1, 00,000. So the number of beds required when there is 100% occupancy in District hospital would be around 275 beds. (1,00,000 bed days /365 days). (IPHS guidelines for District hospital, 2012, p. 25)

The grading of the district hospital as per IPHS 2012 with the Dental staff requirement is given in the table below.

Table 3.1: Grading of district hospital

Grade of district hospital	Number of beds	Number of Dentists	Number of Dental technicians
Grade I	500	3	3
Grade II	400	3	2
Grade III	300	2	2
Grade IV	200	1	1
Grade V	100	1	1

Source: Indian Public Health Standards 2012

[3] Maxillofacial surgeries are those which are used to treat the injuries and deformities in hard and soft tissues of oral cavity and the maxillofacial region (jaws and face).

[4] Neoplasm is an abnormal growth of the tissue in any part of the body which is indicative of cancer.

With these guidelines available the researcher will compare the manpower and infrastructure of district hospital as given in IPHS 2012 with that of the district hospital in Jalandhar. The district hospital in Jalandhar is Grade I (500 bedded) hospital situated in the heart of the city at Jyoti chowk area near police station.

It has three electrically operated Dental chairs in the department of oral health, each of which is in working condition. The Dental staff consists of two oral surgeons, one Dental hygienist and one Dental technician. When we compare the manpower with that given in table 3.1 as per IPHS 2012 the district hospital falls short of it. The IPHS 2012 does not provide any information on the recruitment of the Dental hygienists in the district hospital. The mobile Dental van which should be present in the district hospital as documented in the IPHS is missing in district of Jalandhar.

As per the recommendations of WHO, there should be one dentist per 7500 patients. The two Oral surgeons working in District hospital Jalandhar cater to a population of 15 lakh. The dentist in District hospital feels the need to establish six more Dental wings in the District hospital to organize the heavy population rush.

In the words of Oral Surgeon in the District hospital

> *The government doesn't have funds to pay the salaries regularly to the employees. How can we expect it to create vacancies in Dental department and provide salary to new recruits?*

The above statement falls in line with what is established for the economy of Punjab and its expenditure on health. The health spending of Punjab in public health infrastructure is 0.79% of the GDP when compared to 0.99% of the national average. (Ghuman, B.S.& Meht,A.) The failure of the government to provide finances for health is visible in the field of public health where the government falls short of creating vacancies and the district of Jalandhar is a proof to it. The presence of Dental chairs and other infrastructure are not sufficient to provide services to the heavy rush of patients Dental OPD. To further the statement the Dental OPD and procedures performed in the district hospital are mentioned in the table below:

Table 3.2: Dental procedures in District hospital, Jalandhar

Procedure	District hospital		% of Dental procedures performed
	September 2014	October 2014	
Total hospital OPD	32331	29266	
Dental OPD	1037	902	
Extractions	197	144	17.58
Fillings	150	150	15.47
Scaling	60	60	6.18
RCT and surgeries	40	40	4.12
Operations	110	103	10.98
Total patients treated	557	497	54.35

Source: District Hospital, Dental wing OPD register, 2014

Of all the procedures done, the procedures of prosthesis[5] and treatment of malocclusion[6] as mentioned in the IPHS 2012 are not performed in the district hospital. Apart from specialised dentists and more OPD than the CHC, the only procedure performed which is different in the district hospital Jalandhar is of minor operations. The researcher feels that the difference is not only due to the infrastructure present but also the specialised surgeons posted in the Dental department. The Oral Surgeons can deal with the surgical procedures more efficiently than any other specialised branch of dentistry. The cases of prophylaxis and root canal treatment are low when compared to other procedures being carried out in the District hospital. When asked where the patients seek treatment for the prosthesis and orthodontic treatment the Oral Surgeon was very certain when he said

[5] Prosthesis is the artificial supplementation of any part of body which is lost through trauma or diseases; here it refers to tooth replacement which is done through partial or complete denture and implants.

[6] Malocclusion is an incorrect or mal aligned relation among the teeth of the Dental arches when the jaws close during performing normal functions of the mouth.

The patients either go to private dentists or quacks .Some even wait for the Dental camps to be organised but in regular OPD no such procedures are performed.

From the data available and what the dentists had to say the lack of specialists due to lack of vacancies created and lack of finances by the Punjab government leaves patients with no choice but to explore the options available in the private sector. The huge gaps in the economics of private and public service puts an additional financial burden on the patients. Based on the work experience of researcher who is also a dentist, the Orthodontic treatment is completely missing in the public sector because it is highly paid branch in private sector and with government not allowing any form of private practise, the Orthodontists do not join the public sector. Moreover orthodontic treatment involves additional Dental material and when government cannot afford basic procedures, it cannot burden itself under extra effort of procuring these materials.

Table 3.3: Dental OPD as a percentage of total OPD in District Hospital

Procedure	District hospital	
	September 2014	October 2014
Total hospital OPD	32331	29266
Dental OPD	1037	902
Dental OPD as % of total OPD	3.20	3.08

Source: District Hospital, Hospital OPD register, 2014

The district hospital which boasts of better infrastructure, specialised dentists and interns has a modest Dental OPD percentage when compared to the total OPD (approximately 3% of total OPD as given in table 3.3). Literature is available on the number of patients visiting the Dental OPD in public health settings but there is no source available which clarifies the percentage of Dental patients out of the total patients in public hospitals. The researcher during her career as a dentist in charitable institutes observed that the Dental patients formed one to five percent of the total hospital OPD. The researcher in her visit to District hospital Jalandhar observed that

there was heavy rush of Dental patients but the paucity of staff lead to long waiting time for the patients. These factors of long waiting time and scarcity of staff were partly responsible for the less Dental OPD when compared to the total OPD of the District hospital. The interns and trainee dentists posted in the district hospital were seen attending the patients and assisting the dentists with no chair side help for the dentists. The lack of any Dental auxiliary critically affects the number of patients on which Dental procedures are performed. Table 3.4 shows Dental OPD and the percentage of patients being given any Dental treatment. The patients being treated of any Dental ailment form approximately 50% of the total Dental OPD.

Table 3.4: Percentage of patients on which Dental procedure performed in District hospital

	District hospital ,Jalandhar	
	September 2014	October 2014
Dental OPD	1037	902
Total patients treated	557	497
% of the total patients on which Dental procedures performed	53.71	55.09

Source: District Hospital, Dental wing OPD register, 2014

It becomes very challenging for the dentists working in the District hospital to provide treatment to every patient who visits the Dental clinic. The hospital is short of manpower and it increases the time taken for treating each patient. This in turn has a linear effect on the waiting time for the patients visiting the Dental OPD which is undoubtedly increased. Moreover the timings for Dental OPD (9 AM to 3PM) are such that the patients have to miss their work hours and come for Dental treatment.

The Oral Surgeon in District hospital said

> *The patients coming to the government hospitals are daily wage earners. Waiting in Dental OPD is like giving up their daily wage. The government hospitals do not have evening Dental OPD. How do you except these people to pay you multiple visits? You are forced to provide treatment in one sitting.*

The dentist said that most of the patients coming to the dentists in public sector hospital are from low socio economic status. The visit to Dental clinic for them means missing one day wage and when asked to revisit for elaborate procedures as RCT they mostly don't show up. This is the reason for the data which is available in the table 3.4 where the numbers of patients treated are half of those diagnosed in Dental OPD. This data which is uploaded from the CHC computer to the headquarters in Chandigarh doesn't seem to have an effect on the Punjab government which continues to treat oral health in a step motherly manner.

The District hospital is seen as the medical facility which provides elaborate services which are not available at other levels of health provisioning .But rural populations' first encounter with oral health services in terms of provisioning of oral health services is the CHCs. The next section will discuss the infrastructure and Dental procedures being done at CHCs in District of Jalandhar.

3. I.2. *Infrastructure and procedures performed for oral health care in CHCs in District of Jalandhar*

According to the IPHS 2012 the CHC caters to the population of 80,000 to 1,20,000 and given the prevalence of Dental caries to be 50% and DMFT of 1 in the population of children 40,800 restorations must be required.2,16,000 restorations would be required given the population of adults (60%) with DMFT of 3. About 45% of the adult population that is 32,400 would have need for oral prophylaxis. 30% of the old people (8% of population) accounting to 2880 will require oral prophylaxis. 7% of the total population which comes to 8400 people may suffer from malignancy. (DGHS, 2011, p. 162)

The calculative approach to attending and treating patients for oral health as given in the IPHS 2012 shows the serious approach of the government to provide oral health needs of the population. The IPHS 2012 for CHC for oral health stress on Dental care and education and the health services and handling of basic services and emergency services. It also stresses the need of providing oral health education in collaboration with school health and nutritional education. The government wants to raise the standard of provisioning of oral health services and relate it with the general health but its actual implementation in the field is questionable.

3. I.2.1.Presence of infrastructure

Currently in IPHS 2012 the Dental services in CHCs have not been included under the assured services but an optional Dental clinic in the outpatient department is documented. Compulsory oral health needs to be provided at the level of CHC and all the basic services in Dental OPD are provided in the four CHCs surveyed in district of Jalandhar.

Of the four CHCs in district Jalandhar, the CHC at Kartarpur and Kalabakra have two Dental chairs each whereas there is one chair each at CHC Punjab Armed Police (PAP) and Adampur. All the chairs are electrically operated and each CHC has all the instruments required for basic Dental procedures.

Out of two Dental chairs at CHC Kalabakra, one is donated by an NRI and other by government. Of all the dentists posted in these CHCs, only dentist at CHC Kalabakra is MDS in Pedodontics and is highly motivated to work at par with those in private practise. The dentist aims to bring the working of his CHC at par with the private clinics and is determined to work for the vulnerable sections of the society.

> *I want the patients coming to me feel that the dentists working in the government sector are at par with those in private. I spoke to an NRI from nearby village and when he saw how motivated I was he donated us a second Dental chair.*

Another dentist who seems to be encouraged to bring the level of oral health services to match the private clinics is at CHC PAP.CHC PAP is the newest of all CHC surveyed; constructed in December 2012 and started in September 2013.The dentist in this CHC uses glass bead steriliser which is sometimes missing in the private settings also. The glass bead steriliser sterilises the diagnostic instruments and those used for RCT in seconds.

In words of dentist at CHC PAP

> *I am very concerned about the sterilisation in my Dental clinic. I noticed we needed glass bead steriliser and I decided to spend my own money for buying it. I am happy that I can be of help to my CHC in some way.*

The researcher observed that the disposable gloves after use were cut with the scissors before disposing them off at CHC PAP. The Dental facility also has the privilege of disinfecting the waste collected in the tank during Dental procedures. The

latest construction and waste management technique has been very well planned in CHC PAP. But it lacks a full time radiographer and the radiographer currently available works three days in a week. There is no provision for any regular X ray facility in the CHC. Till the time of data collection, the films to be used for X rays were not available in the department.

In the words of Senior Medical Officer at PAP

> *I have sent many written requests for a radiographer in routine OPD. We have a radiographer posted here now but he works three days in a week. Now we have not been supplied the X ray films. The patients do not understand the administrative loopholes. We as a staff struggle hard to maintain the standards of our CHC.*

There is not only skewed dentist patient ratio but complete absence of the Dental auxiliary and Dental technicians in the public sector in Jalandhar. The class four employees who help the dentists are not exclusively working for the Dental clinics. They assist only in case of emergency procedures like surgical extractions.

The DDHO said that no vacancies have been created for the Dental hygienists and mechanics because the government lack funds. The vacancies for the dentists were also created after a gap of ten years in the public sector where the government conducted a written test in year 2011. The paucity of funds to install Dental chairs was cited as the main reason for delaying the recruitment of the dentists. The dentists have always felt that a step motherly treatment is met out to them. The administration when contacted sees no investment in the case of MBBS doctors being posted in the rural areas whereas for a Dental clinic vast investment as compared to the medical is required.

SMO at CHC PAP said

> *The doctor patient ratio is always skewed. When the private sector offers are lucrative, doctors do not want to serve in the public area. The CHCs are under staffed and the facilities provided are after constant reminders and requests.*

The above two statements given by the SMO clearly represent the administrative powerlessness the dentists have to face which the patients do not understand. The patients are concerned for getting the services in the Dental OPD and they are not aware of the organizational problems in the public hospitals. The psychodynamics of

dentist patient relationship, the perceptions of patients for oral health and how they speak to the data collected will be discussed in detail in next chapter.

3. I.2.2 .Procedures performed in Dental clinics in CHCs of district Jalandhar

With the present manpower and the infrastructure available basic procedures are performed in Dental clinics in the public health settings in Jalandhar. Table 3.5 gives the details of various Dental procedures being carried in the CHCs in the months of September and October 2014. It also gives an account of the total hospital OPD and the Dental OPD out of it.

Table 3.5: Dental procedures performed in CHCs, District Jalandhar

Procedure	CHC Adampur		CHC Kalabakra		CHC Kartarpur		CHC PAP	
	Sept 2014	Oct 2014	Sept 2014	Oct 2014	Sept 2014	Oct 2014	Sept 2014	Oct 2014
Total hospital OPD	8244	7166	4343	3794	7596	6350	2179	1491
Dental OPD	426	397	302	372	559	444	206	148
Extractions	37	24	51	76	107	47	32	26
Fillings	33	37	54	101	64	35	34	24
Scaling	14	13	1	34	24	36	13	9
RCT and surgeries	13	4	10	15	6	11	10	6
Operations								
Total patients treated	97	78	116	226	201	129	89	65

Source: Dental OPD registers of the respective CHCs, 2014

Except at CHC Kalabakra, the number of extractions done is more than the number of restorations done in the Dental procedures carried out in other CHCs. It can be related to the patients visiting the Dental clinic when an irreparable damage to tooth is done which causes them pain and they visit the Dental clinic. The pain is experienced when the tooth becomes infectious and the treatment options available are either a Root Canal Treatment (RCT) or extraction. The private sector with its advanced technology offers RCT in single sitting but in public sector it requires minimum of three visits. From her experience as a dentist the researcher knows that RCTs require a Dental assistant and are seen as difficult procedure to perform single handedly. The lack of Dental assistants as well as the time taken for root canal treatment is a reason that less number of patients opt for this procedure in the public settings. Even when the RCT is completed it requires restoring the tooth surface with a crown to prevent it from fracturing in near future. The lack of Dental laboratory for crown building leaves the dentist and patient with no choice but to restore the tooth with filling after RCT without any crown. The patients and the dentists both opt for extraction and hence the numbers of extractions carries out in CHCs are more than the restorative treatments.

It is well known that the RCT procedure is considered incomplete if the tooth is not restored with a crown. When RCT is performed the tooth structure becomes brittle and chances of tooth fracturing are increased. The lack of any crown puts the treated tooth at high risk of fracturing and RCT is a failure if the tooth has to be extracted. With the patient interviews the researcher felt that the dentists sometimes do not inform the patients about the treatment options and blame them for the failure of treatment.

The procedure of RCT can be easily avoided because the oral diseases like Dental caries and periodontitis are easily preventable if the patients visit the dentist for regular oral check up. But the figures provide that cases of oral prophylaxis are very low when compared to other procedures. Oral prophylaxis not only prevents tooth loss but also has the psychological affect where the problem of halitosis (mouth odour) is solved and social life is not disrupted. The cases of oral prophylaxis are very few because the patients are hesitant about the preventive treatment. In interviews with the patients they said that teeth are weakened after prophylaxis and they only resort to prophylaxis when they experience bleeding gums. The lack of information and established myths in the community prevent them from taking any prophylactic

treatment. The periodontal condition becomes aggravated and leads to tooth loss emphasising the need for partial and complete dentures. But there is complete lack of partial and complete denture cases in routine OPD. There is no Dental technician in all the four CHCS in Jalandhar district and the Dental material for denture construction is not available in routine. Denture construction is a time consuming procedure and dentures are constructed only during Dental fortnight held every year.

It is very clear from the data available and procedures performed that an oral health problem if not treated in the initial stages leads to complicate problems and procedures for which the public health settings in Jalandhar do not have manpower and infrastructure. The prophylaxis doesn't only save the patient from pain but also the time and money spent for the treatment is same. The researcher observed that very few posters indicating the importance of oral health and pictorially representing the hygiene measures were pasted in the CHCs. The patients' lack of information as well as providers casual attitude not only leads to patient suffering but also questions the competency of dentists in public health settings which will be discussed in detail in next chapter.

The procedure which is completely lacking in the Dental OPD and during Dental camp is the orthodontic treatment. As enumerated earlier in review of literature this branch of orthodontics is sought after by many Dental graduates .They are highly paid in the private sector and are not willing to provide services in the public sector. The government sector lacks empanelment of the specialists in the Dental department through which poor patients can afford treatment at low cost for services which are not available in public hospitals.

The procedures performed and those lacking provide clear view of the gaps in the provisioning of oral health services in the public sector. The study shows that these gaps cannot be seen in compartments and the present state of oral health services needs to be seen through the lenses of care seekers as well as providers. Though the government is trying to establish oral health at par with general health what it has failed to understand is the psychosocial dimension involved in the oral health. The complete lack of Behaviour Change Communication (BCC) activities in the community regarding oral health by the government as available from field survey is important cause of the present state of oral health in district of Jalandhar. The large

concentration on the curative aspect rather than the preventive approaches prevents the government to reach the root cause of the problem. No relation of the oral health services with general health services is established and the two are seen as independent of each other.

Table 3.6 provides details on the actual percentage of patients who are treated in the Dental OPD out of the total who visit for diagnosis.

Table 3.6: Percentage of Dental patients on which Dental procedure performed in CHCs

	CHC Adampura		CHC Kalabakra		CHC Kartarpur		CHC PAP	
	Sept 2014	Oct 2014	Sept 2014	Oct 2014	Sept 2014	Oct 2014	Sept 2014	Oct 2014
Dental OPD	426	397	302	372	559	444	206	148
Total patients on which Dental procedure performed	97	78	116	226	201	129	89	65
% of the patients in which Dental procedure performed	22.7	19.64	38.41	60.75	35.95	29.05	43.2	43.9

Source: Dental OPD registers of the respective CHCs, 2014

The patients on which any Dental procedure is performed, varies from as low as 19 percent to 60 percent. This does not include the patients who are provided medicine and asked to revisit the dentist for Dental treatment. The dentists in the public health hospitals told the researcher that the patients do not return for treatment after pain relief. The Dental OPD (as of percentage of the total OPD as given in table 6) of CHC

Adampur is least out of all CHCs. The researcher observed that there were five private dentists practising around the periphery of the CHC. The CHC lacked any Dental X Ray facility and patients were referred out of the CHC for X ray.

Table 3.7: Dental OPD as percentage of total OPD in CHCs

Procedure	CHC Adampur		CHC Kalabakra		CHC Kartarpur		CHC PAP	
	Sept	Oct	Sept	Oct	Sept	Oct	Sept	Oct
Total hospital OPD	8244	7166	4343	3794	7596	6350	2179	1491
Dental OPD	426	397	302	372	559	444	206	148
Dental OPD as % of total OPD	5.16	5.54	6.95	9.8	7.35	6.99	9.45	9.92

Source: Total OPD registers of the respective CHCs, 2014

The total Dental OPD of the CHCs and District hospital ranges from 5 to 10% of the total OPD. The dentists are required to have a minimum OPD of 400 per month which should include 15 to 20 cases of extraction and minimum 4 of RCTs. The CHC where OPD is not up to the mark the dentist is questioned and evaluation done. The targets set also give more importance to extractions than RCTs. The dentists seem to be very well following this approach set by the government for which no calculative reasons could be obtained. The target setting approach and to why and how the approach is made is not clearly laid down by the administration. No survey has been conducted to appreciate the kinds of procedures carried out in the Dental clinic as told by the DDHO to the researcher.

Table 3.8: Percentage of procedures performed in CHCs

Percentage of procedures performed	Adampur	Kalabakra	Kartarpur	PAP
Extractions	7.41	18.84	15.35	16.38
Fillings	5.50	22.99	9.87	16.38
Scaling	3.28	5.19	5.98	6.21
RCT and surgeries	2.06	3.70	1.69	4.51
Operations				
Total patients treated	21.26	50.74	32.90	43.50

Source: Dental OPD registers of the respective CHCs, (September and October 2014)

Even during Dental camps in the District elaborate procedures as denture making are not performed. Dentistry has always been considered a four handed job. It is not possible to imagine a Dental clinic without any Dental assistant because dentistry is about treating every patient who comes to the Dental OPD .Due to the rush in OPD the waiting time is more in the government settings. The lack of any Dental assistant puts a lot of pressure on the dentist because the time taken to treat a single patient is increased. The dentist's working efficiency is compromised and the services delivered are slow. The patients treated are much less than those visiting the facility .Although the dentists want to treat every patient yet they are bound by the limitations of the infrastructure and human resource. There is no awareness generated among the community regarding oral prophylaxis and the myths that the teeth go mobile, still hold so strongly in place. The preventive aspect of oral health care linking it to diet, non use of tobacco and proper technique of brushing is ignored. Due to rush of the patients the dentists do not have enough time to provide proper counselling on these issues. The complete lack of involvement of the outreach workers when it comes to oral health education of community is another hindrance to oral health provisioning.

3. I.2.3. Funding in the Public Hospitals in District of Jalandhar

When asked about any separate funding for the Dentalwing, most of the officials were ignorant about any separate grant being provided in specific for the Dentalwing of the hospital. Although budget was allocated for replacement or installing of the new Dentalchairs yet no separate funds are provided and the Dentaldepartment is run with the help of the user charges collected which is then spent on the Dentalclinic as and when needed. The government does not see oral health at par with other disease control programs because oral health conditions are rarely life threatening.

Lack of doctors working in public hospital has been a topic of concern since long. The dentists are present in the CHCs but class four employees, pharmacists and Dental assistants are seen missing in these government settings. In a setting the dentist herself was taking the user charges because there was lack of staff for dispensing medicine and making prescription slips. This puts an additional burden on the dentist and the circle of decreased efficiency and lesser number of patients treated continues.

The user charges of Rupees 2000 per month can be spent to procure Dental material and SMO has the power to sanction the requirements. In one CHC the dentist was seen ordering the local anaesthesia from outside whereas it is available in the stock provided for general medicines. The medicinal procurement takes time and is only ordered when a large requirement builds up. The Dental department in the government hospital does not have any separate funding and to add to it the user charges are spent on the materials.

This information on the oral health medicine has been got through interviews of the Chief pharmacists at the CHCs**.** Although medical pluralism is practised in case of general ailments but there are no Ayurvedic preparations available for the Dental disease.

There are no separate requirements for medicines for Dental patients and the list of the medicine is available as per the general disease conditions. Moreover the Dental material is not available in advance in the store room of the facility neither is there a stock procuring place as the warehouse of medicines in Verka, Amritsar. The mouthwash and gum paints which form an important component of oral prophylaxis are not available in all CHCs. No toothpastes used for tooth sensitivity are being

provided at the pharmacy counter. In some CHCs mouthwash is being given but when the stock runs out of the same regular availability becomes an issue. The provisioning of oral hygiene products is not seen as a priority by the government and lack of supply of the products puts an additional burden on the patients.

In words of the pharmacist at CHC Kartarpur,

> *The patients do not take medicines or any oral hygiene products if they have to purchase from outside. They come here because they get free medicines.*

The Dental material's supply is not constant at the CHCs. The dentists in their monthly meeting with District Dental Health Officer give their demand in written and it takes approximately two months to fulfil the demand. Meanwhile if they need any material it can be purchased locally from dealers through permission from the SMO. The only material which is supplied is the local anaesthesia as it is also needed for other small surgical procedures in the hospital. The most frequently sought after material in Dental clinic is local anaesthesia which substantiates the fact that of all procedures maximum numbers of tooth extractions are performed in Dental OPD.

Although the Dental chairs and other infrastructure are at par with private clinics but there is no Dental workshop in the district of Jalandhar established by the government. The dentists have to rely on the private mechanics and the charge of repair is paid through user charges collected.

3. I.3. Role of PHC and Sub Centres in oral health provisioning

According to IPHS 2012 oral health education should be provided at PHCs and Sub centres for prevention of oral diseases. There are no guidelines on providing any curative treatment at the level of PHC and Sub centres. The health workers should provide education to the mothers at the Anganwadi centres for prevention of oral diseases in children.

These outreach workers, as documented in the IPHS 2012 are the first point of contact with the community. They are not given any formal training on the detection of oral health problems nor provided with any Dental kit or IEC material. Moreover they have lot of paper work to complete and due to lack of manpower in the public sector, the workload is more. Although some lectures are given by the Dental department

sparingly to these workers yet there is no training module for recognising the oral problems for the outreach workers.

The Multipurpose Worker at CHC Adampur said

> *We only know about brushing our teeth regularly to prevent Dental disease. We are not provided any training regarding oral health and diseases related to same. We have only paracetamol tablets to give to patients if they complain of tooth pain. Most of the times, we refer the patients to dentist in the CHC. The patients themselves are very negligent of oral problems.*

The complete absence of provisioning of oral health care education at the level of PHC and Sub Centres and referral to the CHC increases the workload on the dentists working in the CHC and the vicious cycle of increased patient rush and gap in the treatment given continues.

The government is aware of the lack of service provisioning for oral health at various stages of contact of the patient with the service providers. It makes an effort to provide the services missing during the regular OPD to the patients during the Dental camps organised once in a year. The researcher after interviewing the administration and the dentist feels that these camps are seen as a substitute for the absence of certain procedures and to bring oral health to the notice of the community. The next subsection will provide details about the Dental fortnight and the gaps in the same.

3. I.4. Dental fortnight in District of Jalandhar

The regular OPD as mentioned earlier did not provide the facility of partial and complete dentures. In order to cater to the needs of the geriatric population, the Punjab government makes an effort every year to provide the services of denture during the fifteen day camp conducted every year in the state. Although it is an attempt to provide services to the vulnerable population the lack of analytical approach to the same despite spending money and resources is what leaves the patients struggling for the services.

The Dental fortnight is conducted at some selected places where the dentists from different CHCs work together and it is called ***Pandarwada*** in local language. The dentists of the CHCs covered were part of the fortnight at other places for which no relevant data was available in the CHC visited. The data from the District hospital

was available in which dentist from one of the surveyed CHC was a part of the Dental camp.

The report of Dental fortnight which could be obtained from secondary source and website of Punjab government is as follows for the year 2011.

Table 3.9: Dental fortnight in Punjab (15-07-2011 to 30-07-2011)

Name	Number of patients	Denture delivered	Extraction	Surgical procedure	Filling	Dental prophylaxis	Number of school children	Total number of camps
Amritsar	4877	165	1546	218	1005	598	1752	8
Barnala	1327	65	289	17	113	67	2029	1
Bhathida	3560	139	657	90	1081	195	2126	4
Fathegarh sahib	2057	145	608	65	317	182	1571	4
Ferozepur	2671	135	395	68	610	144	12907	5
Faridkot	1513	55	691	52	706	68	2249	2
Gurdaspur	3612	122	562	57	576	149	4477	10
Hoshiarpur	5803	158	1269	457	1427	348	10594	6
Jalandhar	5450	68	1858	561	1390	404	3816	5
Kapurthala	2723	55	1017	180	1112	180	1573	5
Ludhiana	5482	154	1592	123	1570	339	2761	7
Mansa	1411	55	565	94	503	226	675	1
Moga	2353	55	768	35	533	155	6537	3
Mukstar	856	55	321	18	285	72	1284	2
Nawashahr	1806	59	538	16	260	130	1101	3
Patiala	5816	203	952	161	716	445	6196	6
Ropar	1970	69	361	44	195	120	445	5
Sangrur	2145	140	845	331	955	153	5463	4
SAS	2631	147	787	1168	71	179	3691	4
Taran taran	2291	61	792	103	783	142	2245	3
Total	60354	1903	16413	3898	14208	4296	73437	87

Source: Government of Punjab, Health and Family Welfare, 2011 (http://pbhealth.gov.in/dental_ft.pdf)

Table 3.9 shows that compared to other Districts of Punjab, Jalandhar though not best, is placed fairly well when we look at the OPD in the Dental camps and the Dental procedures performed. The dentures delivered during the Dental camps in District of Jalandhar are least in number when compared to other Dental procedures conducted during the camp and extractions form the highest number among all procedures performed. This data furnished by Government of Punjab, Health and Family Welfare, 2011 is similar to with what the researcher collected for the District hospital and CHCs where the same pattern is observed in the routine OPD as well as in the Dental camps. The extraction rate is highest and dentures delivered during camps are least in number as compared to other procedures.

The Dental fortnight conducted in the District hospital Jalandhar is represented in the table below.

Table 3.10: Dental fortnight (conducted from 6th Feb 2014 to 21 Feb 2014) District hospital

Total number of patients	1219	% of total
Dentures	40	3.28
Extractions	376	30.84
Temporary fillings	271	22.23
Permanent fillings	259	21.24
Prophylaxis	301	24.69
Root canal treatment	35	2.87

Source: District Hospital Dental Wing records

The data provided by the district hospital Jalandhar clearly shows the percentage of dentures to be very less when compared to other procedures. The other Dental procedures are already being performed in the regular Dental OPD. The Dental fortnight does not present any captivating picture of the Dental treatment being offered. The lack of Dental auxiliary and heavy rush of patients during the camps does not permit the construction of dentures on a large scale. During the fortnight not

all the patients are provided dentures .For the CHC the target is around 25 to 30 patients for constructing the dentures. Due to the rush of the patients a lottery system is done and those selected through lottery are provided dentures.

The old patients due to process of aging already suffer from nutritional problems and the loss of natural teeth adds to the problem. Denture deprivation becomes a big issue for the patients from low socioeconomic background as private provisioning of denture is very expensive. These patients have to turn to quacks which certainly compromises with the quality of services delivered or they have to seek help in the private sector which puts economic burden on them.

In the words of DDHO,

> *We do not provide dentures in the regular Dental OPD but during the Dental fortnight. The Punjab government gives a grant of Rupees one lakh for the Dental camps. The dentists from district Jalandhar are provided duties at different places during the camps.*

Dental camps have been seen by the government as the means to make up for the missing Dental services but what it fails to understand is that with lack of manpower and the lack of Dental auxiliaries even the Dental camps cannot deliver these services. The services does provide meagre assistance to those requiring prosthesis but the ones who are left out are not followed up or even if they return in next camp there is no security that they will be provided prosthesis.

Section II: Status of School Health Program in District of Jalandhar

The school health is included under Rashtriya Bal Swasthya Karyakram. It aims to cover children from 0 to 18 years and screen them for 4Ds meaning defects at birth, disease in children, disease deficiency, developmental delays which includes disability. This program is started under NRHM (On February, 2013) and the children who are diagnosed with any diseased condition are provided free treatment. It aims to cover the children from 0 to 6 years in the rural areas and urban slums. It also caters to the needs of the children from 1 to 12^{th} standard in the government and government aided institutes. Out of the 30 identified health conditions for the children Dental caries is included in the childhood diseases. The mobile health team includes two

Ayurvedic Medical Officers (AMO) one male and one female, one ANM and one pharmacist with proficiency in data management.

As provided by the CMO office Jalandhar, it is divided into ten blocks which consists of 1653 Angadwadis, 978 primary schools, 182 middle schools, 139 secondary schools and 128 upper secondary government schools. The numbers of the government aided primary schools are 11, middle school is 1, secondary school is 22 and upper secondary school is 30. These figures have been provided by the CMO office to the researcher.

In year 2014 in Jalandhar district 63568 school students and 4092 Anganwadi children were checked for the health of the school children.

The major disease profile in school children is found to be anaemia. Although Dental caries have been mentioned under the school health disease profiles to be covered but there is no mention of malocclusion in the same which affects the self esteem and social relations of the children in growing years. The literature available on it and the linkages established will be spoken in detail in chapter on discussion.

The Ayurvedic Medical Officer (AMO) at Kalabakra said

> *We have been newly recruited and will undergo training for the school health which is component of Rashtriya Baal Swaystha Karyakram. We will be provided mobile vans and we will stay five days in the field. Till now no training has been provided.*

The teachers for the school health are not trained regarding the causes of Dental disease and how to prevent them. Although they tell their students about the importance of oral hygiene but they do not teach the technique of proper brushing. No models are provided to the school teachers and no regular talks on prevention are given. The teams only provide check up; fill the referral cards and leave. There is hardly any time for one to one interaction with the students or the staff.

The School Health Program is carried out by the medical officers who check the general and oral health problems of the school children. The role of dentist in the school health program is not seen mandatory. As far as visit in the field is concerned, the government is of the view that anyone (even pharmacists and other workers) can observe the Dental condition of the child and accordingly refer the patient to Dental facility. The OPD in the hospital is affected if the dentists go out in the field.

Moreover a Dental set up is considered obligatory for Dental treatment which cannot be done when in field. The students are referred to the facility but few of them inform their parents. In some cases the parents themselves are reluctant to take the child to the dentist because of their own fears. The days are fixed in the CHCs when the students from the schools come with their referral cards and get treated.

The School Health seems to be in shamble as there is no data maintained in the CHCs for the School Health. There is a dispute going between the RMOs and the Punjab government whereby RMOs do not report to the SMO. Instead they submit their data to the office of Additional Deputy Commissioner from where it is sent to the CMO office. There is no systematic reporting of the data and sometimes only the number of students checked and referred is reported. There is no clarity as per the responsibility of the institution for the program. In some CHCs Ayurvedic Medical Officers under the scheme of RBSK are conducting school health whereas in some CHC the Rural Medical Officers are responsible for the same. The Ayurvedic Medical Officers till the period of data collection were not trained regarding their responsibilities under RBSK. Those who underwent preliminary training provided some knowledge to school teachers regarding the ailments and were of the view that Dental caries is seen more in the schools in the urban areas as compared to the rural areas and it is the most common form of Dental disease encountered by them in field.

Mobile vans are provided under the program and the AMOs are in the field for five days to cover all the government and government aided institutions in their area and report on Saturday to the CHC.

Table 3.11: School Heath data in District Jalandhar (September and October 2014)

Month	Total students checked	Total referred for Dental disease	% of those referred out of total
September 2014	10441	260	2.49
October 2014	8066	463	5.74

Source: Chief Medical Officer (CMO) office, District Jalandhar

Out of all the students checked Dental ailments were found to be 2.5 to 5% of the total disease profile. The Dental profile is not elaborated and the CHCs do not have any data regarding the Dental diseases found in the school students.

The CHC at Kartarpur is only CHC amongst those surveyed where the dentist has monthly record of the children checked for Dental ailments under school health program.39 students were checked in month of September 2014 and 49 in October 2014 out of which 23 and 11 were provided treatment respectively. The day the researcher visited the CHC the school children were being checked for the Dental diseases. Every Saturday in CHC Kartarpur is dedicated to the geriatric population and every Wednesday for the check up of school students. This regimen was not followed in other CHC as vigorously as being followed in CHC Kartarpur.

Section III. Addressing oral cancer through public health institutions

The Indian Council of Medical Research 2003 says that there has been an extensive increase in the incidence of sub mucous fibrosis which can turn malignant and increase the incidence of oral cancer. The National Cancer control program was started in India in 1984 to prevent the increasing prevalence of cancers and provide palliative care and reduce consumption of tobacco.

In Punjab the patients suffering from cancer are offered monetary help through Mukh Mantri Punjab Cancer Rahat Kosh Scheme. All the patients except the government employees and those under health insurance are paid 1.5 lakh rupees for their treatment.

The cases of the oral cancer are referred to the District hospital which in turn refers the patients to Patel hospital Jalandhar, GMCH Amritsar, Oswal Ludhiana and PGI Chandigarh.

There is no preliminary treatment available at the District hospital for the cancer patients. Patel Hospital, a private hospital in Jalandhar city, is emplaned with the district hospital. It has a separate head and neck oncology department which is not present in any of the hospitals of Punjab. The hospital has a separate record for those availing treatment under the scheme. The hospital has a team of six oncologists

(surgical, medical and radiation) working in the head and neck department. The coordination and management of the hospital when compared with the public sector is highly different. It is team of doctors who are very motivated and have very well planned schedule to deliver quality services to the patients. They are part of Jeevan Daan Society where doctors pool money for cancer patients who cannot afford treatment.

In the words of Surgical Oncologist at Patel hospital

> *"The facilities are lacking even in the tertiary hospitals like PGI Chandigarh where there is no separate department for head and neck oncology. We at Patel hospital are committed to provide total patient care and the doctors also pool money to help needy through Jeevan Daan Society."*

Total cancer patients who are being treated in the hospital from 1st Jan to 27th Dec 2014, are 1480 in number out of which 60 patients were of oral cancer. The patients of oral cancer amount to 4 % of the total cancer patients. Under Mukh Mantri Punjab Cancer Rahat Kosh Scheme, total cancer patients availing benefit from start of the scheme in Patel hospital were 732 and in the year 2014 number of patients availing scheme (till 27th Dec 2014) were 284(From records of Patel Hospital). All these patients availing treatment in this hospital are not necessarily from Jalandhar District or Punjab.

The philanthropic position of the doctors working in the private hospital contradicts the established notion that the private sector care provider work for economic gains. The DDHO when contacted did not have any knowledge of any contribution by doctors collectively working in the public health sector. The increased consumption of smokeless tobacco in Punjab as told by the surgical oncologist at the Patel Hospital makes it necessary for the government to provide the cancer services in the government hospitals through better infrastructure and motivated workforce.

Conclusion

Although the equipments and infrastructure are available, the lack of manpower is a major setback to oral health services. The lack of some of the essential services puts economic burden on the patients for which they have to seek help from the quacks or the private practitioners. The problem is not seen in a wider perspective and alternate ways to improve the present state of oral health services are not devised by the Punjab

government. The District administration doesn't work in coordination with those providing care and their problems and needs are not timely addressed. The working in the different CHC of the Dental department depends a lot on the hard work and motivation of the dentist. The variations in the data regarding the Dental procedures performed support the fact that if the care giver is motivated, treatment can be provided with the help of available resources. This judicial use of the available resources is missing in the Dental department of the public health settings in the District of Jalandhar. The next chapter will provide deeper insights into the present state of oral health care through perspectives of dentists as well as patients.

CHAPTER 4: PERCEPTION AND ATTITUDE OF PATIENTS AND PROVIDERS ON STATE OF ORAL HEALTH IN DISTRICT OF JALANDHAR

Introduction

The state of oral health in the District of Jalandhar is essential to be looked through the lens of patients as well providers. It is extremely important to enumerate facts provided by those seeking care to view the oral health care in broader perspective. The inter linkages established will be thoroughly examined and related to what has been enumerated in earlier chapters. It also presents views of Senior Medical Officers and the District Dental Health Officer responsible for the administrative functions in the CHC and the District respectively. The administrative powerlessness and the manner in which oral health services are handled will present an interesting picture.

The chapter is divided into two main parts:

Section I: It deals with Dentists' perception regarding state of oral health care in district of Jalandhar. It also debates the gaps in service provision in case of oral health through the insights presented by the dentists. It also gives the views of Senior Medical Officers (SMOs) and DDHO regarding the oral health services and its present condition in the District of Jalandhar.

Section II: It serves the perception of the patients in District of Jalandhar regarding the state of oral health care .It gives a view of those at the receiving end of oral health services and how important is oral health for their survival.

Section I: Dentists' perception regarding present state of oral health care in Jalandhar District

The dentists interviewed at the CHCs have different views regarding oral health provisioning in government hospitals. The way the dentists look at oral health services and how they perceive the responsibility of various actors on the issue is discussed in different sub sections. The way the government and the patients perceive oral health when seen through the lens of dentist is represented in detail in the sub

section. The perception of the oral health which determines the attitude of government and the way it is seen as providing oral health services in the field is discussed at length in the following sub section.

4. I.1.Casual approach of the government towards oral health services

This subsection deals with how important the government perceives oral health to be and how this perception is reflected in the way the oral needs are addressed. It will bring into the notice of reader the gaps in service provisioning as well as the efforts made by the government to bring oral health services at par with general health services. The approach of the government whether working single handed or in coordination with the service providers is reflected in the themes and narratives provided by the researcher. The advances made and those still lacking reflect the sensitivity of the administration to the care seekers and care providers for oral health.

4. I.1.1 Lack of IEC material required for oral health

As mentioned in the previous chapter, in all the four CHCs and the District hospital in Jalandhar pictorial representation of oral health is not satisfactory. The attitude of the government in addressing oral health through posters and the importance it attaches to BCC is not very welcoming. The focus is more on the curative aspect of the problem which is very well established through figures in the previous chapter. The government fails to understand the importance of the preventive aspect of oral health problems and the lack of information dissemination is the direct result of its perception towards oral health. It has a very linear approach towards oral diseases and its cure. It perceives the oral health different from general health and does not address the two in coordination with each other. As mentioned in the previous chapter with no involvement of the outreach workers and their lack of training for oral health care, the attitude of the government from the way it perceives is established in the field.

The researcher observed that in the Dental operatory however there were few posters in local language as well as English to educate patients regarding oral hygiene measures. When the District hospital dentist says that most of the patients come from low socio economic backgrounds and are not educated, the visual representation of the oral health becomes more important. It becomes important for the government to provide the information material which is more pictorial in nature which provides

information on oral health. The lack of take away pamphlets in routine OPD raises a doubt on the seriousness of the government on tackling with oral health. The distribution of pamphlets for informing the date of oral camps as well as advertising in the newspaper is how the administration thinks the oral health should be attended to. The position of the government on oral health information is seen from the way it perceives oral health when in CHC Adampur the dentist himself spent money on the posters to be pasted outside the Dental clinic. In his words,

> *I have got all these posters (pasted in and out of Dental OPD) made out of my own money. They are necessary to educate people regarding the brushing techniques and how to take care of their teeth in routine.*

The posters in CHC Adampur are pasted outside the Dental wing as well where they represent the general disease conditions as diabetes, heart problems, blood pressure etc. which need to be checked before going for Dental treatment. This poster is different from all the posters observed in the other CHCs and gives an impression that the dentist himself is motivated to provide as much information as possible on oral health. The posters provided by government are more focussed on the oral hygiene measures and they lack the information on oral health and general health.

On the other hand the Dental wing of CHC at Kalabakra had few posters in the operatory and none in the waiting area. When the dentist was enquired about the same, he said,

> *Yes they are necessary, especially in Punjabi. They should be pasted in the area where the patients wait and should be pictorial in representation.*

He was of the view that the authorities do not recognize the importance of pasting the posters in the waiting area outside Dental clinic. Most of the CHCs had the IEC material pasted in the operatory rather than in the waiting area. The researcher observed while sitting in the waiting area that it is the place where the patient spends most of his time and this time can be utilised to read the posters providing information on oral health. In the operatory the patients are busy getting themselves treated and do not get enough time to view what has been pasted.

The government has conveniently chosen to neglect posters captivating the interest of children visiting the Dental OPD. There was a complete lack of any kind of material for the child patients visiting the operatory. The school children visiting the OPD for

their treatment do not get to see posters or any models of their interest. The school children during their check up when talked to informally do know the basic oral hygiene measures but said they are afraid of the Dental procedures. When enquired about any posters or models shown by health team they expressed ignorance on receiving any lessons related to oral health. The government perceives oral health as the school health program made available at the level of the schools. But the school health teams do not address the issue of oral health seriously where they have to examine the full body of the children for various diseases. The previous chapter, where the AMOs admit not receiving any special training on oral health, substantiates the argument of neglected oral health in field as well as in schools by the government.

When contacted the DDHO said,

> *The lack of funds as enumerated by the dentists and no help from any private sponsors can be seen in the form of missing information on oral health in the public hospitals in district of Jalandhar. The posters from any particular Dental company which advertises the use of the products from that company cannot be displayed .Companies dealing in Dental health products are enrolled during Dental camps and are allowed to put banners advertising company products during the same.*

Those responsible for maintaining standards of oral health care in the district of Jalandhar are themselves not motivated to improve the health care and provide information within the resources available. The attitude of the administration towards preventive approach and health education is very relaxed. It has still not been able to establish the significance of prevention in easily preventable Dental diseases as Dental caries and periodontitis.

4. I.1.2. Established hierarchy at workplace by the administration

The administration when contacted boasted of various facilities available for oral health but the government sector still lags behind the private sector in many ways. The attitude of the government sector towards private is more of critical than adopting the positives and trying to work for betterment of public sector. The major difference apart from the infrastructure which the dentists see from private sector is the hierarchical structure of the public hospitals. The narrative by the dentist at Adampur will reflect the hierarchy at the public sector and how it induces lack of confidence in the workforce.

The dentist at CHC Adampur said,

> *I want to take leave and learn latest techniques in dentistry for which even government gives permission. But where will I use my knowledge? The government institutes do not have that sophisticated instruments and the patients coming here will not be willing for those procedures. The doctors in private sector get different set of patients who are ready to adopt new procedures. We have to get papers signed at every step even for minor requirements. We are not our own boss. There is a hierarchical structure at every step.*

The dentists say that given the nature of the hierarchical structure, where they are answerable to higher officials and have to work with limited resources, they cannot do what they want to do for the upliftment of the dentistry in their respective work places. The dentists feel that even if they learn modern techniques for their growth, they cannot practise it in the hospitals because of the expensive equipments involved and the lack of motivated patients willing for those sophisticated procedures. They believe that they cannot compete with their colleagues in private practise because of the latest advances being used in private clinics. Some of them feel that they are losing their confidence and motivation because those working in the private sector are better informed of the recent advances in dentistry. Their peers keep on learning new techniques and upgrading their practical skills. If they were to compete with those in the private sector they would never be able to match the skills of those practising in that sector. This feeling of dissatisfaction does affect their working in the hospital where sometimes they are not ready to go an extra mile. The competency of the administration to handle and uplift this branch of health is greatly required where they can work with increased cooperation with the dentists. The dentists believe that government perceives oral health as providing them with the infrastructure and other basic requirements. What it fails to understand is that the even if dentists upgrade their skills they will have no field to practise. It wants to bring the Dental skills at par with those working in the private sector but doesn't provide satisfactory environment for the same.

The dentist at Kalabakra said

> *The senior medical officer is very cooperative and motivated to provide the best available treatment to the patients. This motivates me and my*

requirements are easily sanctioned and he poses full faith in me. But there are times when even he cannot make decisions without consulting the district headquarters.

The narratives throw a light on the difference in the motivational factors for both public and private sectors. Where in private sector there is a need to learn new techniques and upgrading of the clinic, the government dentists work for an administration and lack the latest skills and technology. The researcher experienced the huge difference in the treatment charges in both these sectors and the lack of any check on private sector leaves it unregulated and difficult to access financially for those who are the most vulnerable section of the society.

4. I.1.3 Non regulation of the private sector

The National Commission on Macroeconomic and Health 2005 provide the fact that 75% of the Dental delivery services, vascular diseases, cancers and orthopaedics while 40% of the deliveries and communicable diseases are provided by private sector. (MIHFW,2005,pp5)

When asked about the data for private practitioners and quacks in District of Jalandhar it was not available with the administration. The researcher felt that the government's attitude towards unethical practises and non regulation of private sector is lenient in nature. The dentists in the public hospitals in District Jalandhar believe that government does not keep a firm check on the dentists doing private practise in the area. The quacks are not given strict punishment for doing unethical practises in dentistry nor are any regular checks made. The government has not enforced any checklist on the amount of charges to be taken in the private sector and the practises go unregulated making patients to suffer. The patients in the rural areas go to quacks where there is lack of sterilisation and improper procedures are followed. The procedures which are not done in the public sector are sought after in the private areas and given the non check, it can be infectious as well as economically draining.

The rural patients who seek help in private have an opinion that those practising in the private clinics do not have a fixed rate list for charging from the patients. The doctors as per their reputation and OPD, charge from the patients and the rates in the private clinic differ from the public hospitals by ten folds. There is no formal auditing of the private sector and the rules for the private clinic and their running exist only on

papers. The dentists working in the public sector also work in the private sector where they have opened the clinics in the name of their spouses or in partnership with other dentists.

The dentist at Kalabakra said

> *The government doesn't regulate private sector in dentistry. I know of dentist working in the public sector but also doing private practise. The inconsiderate attitude of government towards the oral health care services encourages the quacks as well as dentist working in the private sector*.

When the DDHO was questioned about the private practising of the dentists working in public sector, she said nothing has been brought into her notice. The researcher during her casual talks with the staff did come to know about a lot of politics in the Dental department of the civil hospital. The dentists having political connections and good terms with higher officials do practise in their own clinics in the evenings. The government ignoring the loopholes in the public sector and keeping them under wraps is how seriously it perceives these issues and what has been said in the above section is how the perception is transformed into a careless attitude towards oral health services.

4. I.1.4. Difficult times for state economy

The dentists are of the collective view that the state economy is in shambles and cannot afford to pay doctors. According to dentist at District hospital the Dental wing of the civil hospital needs to be expanded and more specialists recruited to provide services to make public health institutions work at par with the private sector. The CHCs does not only lack specialists but class four employees too because the government doesn't have funds to pay the staff. The state has made efforts to revive dentistry by providing the basic infrastructure but the revival of the state treasury will surely improve the public funding of the health of the people of Punjab. The infrastructure and the manpower crunching under the burden of lack of financing for the oral health sector affects the service provisioning and indirectly the seriousness for the same in providers as well as patients. The dentists get an excuse of not doing Dental procedures on all patients due to lack of Dental auxiliary. It affects the earnings to the state treasury for which the government is itself responsible.

The dentist at Kalabakra said

> *The government should provide free bus services to patients coming to this CHC from their villages so that patients are not worried for the transport cost. It will facilitate patients seek timely help at the hospital. Moreover it will help improve the economic condition of the Punjab government. When more patients will seek treatment, earnings in Dental wing will be improved.*

He is of the view that the government can make efforts to improve the OPD and this in turn will lead to improved earnings in public hospitals and add to the state income. The views of the dentists on how to improve the state economy, builds an argument for the relationship of the Dental health and economics of the health care in Punjab. The revival of economy and the earnings from oral health services can be seen in an inter dependant manner where both can benefit as well as adversely affect each other. But the government fails to recognise that the provisioning of services whether in oral health are to be seen in collaboration and collective effect of the general health services. The lacks of innovative approaches to address the issues in health are largely missing in the public sector in district of Jalandhar.

The service providers and the Punjab government efforts to revive the oral health services will fail if the approach of the patients to oral health doesn't change. The synchronisation among the care givers and care seekers is very essential to change the status of oral health services in district of Jalandhar. The next section will articulate the attitude of those at the receiving end of the oral health services.

4. I.2. Dentist's attitude towards oral health provisioning

4. I.2.1. Attitude towards job as a service provider

The way the dentists perceive their responsibilities and the need to bring visibility of oral health in public health services, determines their outlook towards their own profession.

The dentist at CHC PAP said

> *There should be union among the dentists working in the public sector to put their demands in front of the government. If we are reluctant to speak how those higher in hierarchy will understand our problems?*

The dentists think that the Dental fraternity should unite to put forward their demands to the government. The hospital administration has to be constantly reminded by the

dentists themselves to meet their demands .The dentists should come together and fight for their rights and request the government to establish proper laboratories and provide them with Dental auxiliary. The lack of auxiliary and the patients treated are directly related. As mentioned in the previous chapter with no Dental assistants the efficiency and the treatment provided in Dental clinic are affected.

Dentist at CHC Kalabakra said,

> *We ourselves are not motivated to work for the deprived section of society. Can you expect people to spend money on Dental treatment when they do not have food to eat? It is a social service which we are doing but cheating our own professional ethics.*

The researcher felt that the dentists lack inspiration to serve the population which is deprived of the health needs and who need the services in the public hospitals the most. They were disturbed about not earning at par or lacking the skills which their colleagues in private sector have. Though they spoke of being motivated, it contradicted what the researcher observed in the field. The dentist at CHC Kalbakra is the one whose Dental OPD had more filling cases than extraction and whose work spoke volumes of his selfless attitude towards patients. The rapport building with the patients in the operatory was best seen in his case. The intrinsic motivation to provide selfless service determines the kind of services being provided to the patients by the providers.

But DDHO feels that it is the attitude of the patient not the dentist which needs to be changed. She feels that the dentists in public sector are providing services but the patients are not ready to avail the same. The administration, she said cannot change the mindset of the people and they try their best to bring oral health to level of general health. The victim blaming attitude of the administration is not a healthy way of dealing with the problem under study.

The dentists although make efforts to provide the best available but they lack in motivation to work for the underserved section of the society. The interaction with the patients is more mechanical in nature and little attempt is made to put patients at ease. The patients entering into the world of unknown poses complete trust in the dentists. Although given Dental treatment, the patients are not provided any counselling in the clinic.

4. I. 2.2. No counselling provided

As enumerated by researcher in the previous section, due to lack of knowledge provisioning and counselling the patients fail to understand oral health in a holistic manner. They reduce it to oral cavity, its ailments and the need to address oral health issues independent of body issues. The patients do not receive any counselling from the dentist in the daily OPD on what is the relation of oral health on the general body health. The dentists are too busy in providing curative treatment and prescribing medicines that they do not have much interaction with the patients. The workload does not permit them to be seated with patients and provide knowledge for oral disease prevention.

Nishant Walia, 22 year old male patient in CHC PAP said

> *I brush my teeth twice in the morning and before going to bed because the dentist asked me to do that. But I do not have any idea of the relation of the oral health and the general body health and functioning.*

The data described in the previous chapter shows that extraction is the most frequently performed Dental procedure. The most common reasons for tooth extraction as cited by the dentists were the irreparable damage done to the tooth and tooth mobility. The most common reason for tooth mobility as given by dentist in adults is diabetes where the periodontal condition is compromised and the teeth become mobile. The patients are only aware of the carious tooth and the food lodgement due to it. They do not have any knowledge and expressed surprise as well as interest when asked about the effect of the general health on oral health by the researcher.

The dentist at PAP said

> *You can yourself see the patient load. We do not have full time pharmacist and sometimes I have to take payments and keep them with me. The pharmacist maintains OPD and provides medicines as well. Where do I get time to interact with patients? The only interaction which happens is on Dental chair while providing treatment.*

The lack of interaction, laxity of administration and no motivational factors for service providers speak to each other on how oral health is perceived in the public sphere. All these cannot be seen in silos and it is very important to relate them to the seriousness of the patients for their oral health.

4. I.3.Medical Officers outlook on oral health

Not only those who provide oral health services directly are responsible for the same but also those who are responsible for the administration have an opinion on how to rectify the present status of oral health and what are the factors responsible for it. They were very honest in pointing out the administrative incapability and the way oral health services are handled. The subsections bring into focus why the present perceptions and attitudes have been created at level of care takers and care givers. It tries to amalgamate what has been said earlier exposing the invisible and providing more arguments to ascertain what has been already established in the previous sections.

4. I.3.1. Non usage of public hospitals by policy makers

The attitude of those drafting policies for the public sector questions their accountability towards health and its provisioning. They do not visit these hospitals themselves and create perception that public hospitals are for use of poor section which is very well carried by the community.

SMO Kalabakra said

> *Only if those taking decisions and making policies come to government hospital they can understand the real situation. Sitting in ACs and signing policy documents is very easy. The ground reality is very different. .*

The policy makers and those involved in the government do not come to the public facilities for their treatment. Little would they realise the shortcomings of the public sector if they themselves are not availing treatment for the same in the hospitals. They do not go out in the field when they pen down policies and even being aware of the apathy of the government hospitals they do not make inclusive policies. If they get the first hand experience of the shortcomings of the government sector they might be more than willing to fight for the cause of the poor patients visiting the government facility. Even the government employees who are entitled to free treatment in the government hospitals do not seek treatment there because they suspect the competency of doctors and do not compromise on their social status.

The care seekers reluctance to enter the public hospitals should be seen as the intermeshing of various factors, where not only the social status of the patient comes

into play but also the media reports of public hospitals plays a role. As mentioned earlier the competency of those working in the public sector is seen with great doubt after media reports of accidents in public hospitals are reported. It questions the government's capability to bring the Dentalclinics in public hospitals at par with the private sector so that those who enjoy good socio economic status also avail services in it.

4. I.3.2.Lack of facilities in spite of competent doctors

Even if the dentists are competent enough to deliver dentures and provide crowns after RCTs, the government does not have state run Dental labs and Dental mechanics. The patients have to spend money in the private sector for getting their treatment done. There is no government run Dental college and hospital in Jalandhar which further adds to the work load of the dentists. The Senior Medical Officers in all the CHCs have the same opinion when it comes to delivering services with quality. The achievements of the government hospitals, according to the doctors, should be made public to win back the confidence of those seeking care in the government sector. The media should report about the doctors working in the public sector who are working with utmost honesty and sincerity.

According to SMO Kalabakra

> *The government hospitals too have well have qualified dentists and other doctors to cater to patient needs. But the mindset of the people is that if they can afford, why they should waste their time waiting for treatment in public hospitals.*

The previous chapter talks about lack of manpower which compromises the status of profession as well as those involved in delivering services. The dentists feel they are not less than those in the private sector and what binds them are the government rules and formalities for running their clinics. What they lack is the proper infrastructures needed to deliver Dental care for which patients hold them responsible.

4. I.3.3.No separate program for Dental care

There are no separate days for celebrating oral health day as it is done for other disease programs. If the day is marked and celebrated in the CHC and patients provided the facility for free Dental check up, the awareness regarding the oral health

will be increased and the government will be entrusted with the responsibility of taking oral diseases as seriously as other ailments.

SMO at CHC Adampur said

> *The patient awareness can increase if there is a Dental day celebrated or the program on oral health is launched aggressively. The patients should be incentivised to come to the clinic for treatment in some way or the other. It can help to change the way patients look at oral health.*

The oral health programme has not been implemented with enthusiasm since its inception and there is complete absence of what has been recommended. Given the status of other communicable and non communicable diseases oral diseases are not considered to be life threatening and those requiring immediate help. The only attention being paid is to oral cancer in the programme for the non communicable disease. The review of literature has already established the status of oral health programme and its lack of execution is seen in the field by the researcher.

4. I.4 .Administrative capacity of District Dental Health Officer

The DDHO expressed her helplessness when asked about various loopholes in providing for Dental health. She said the government is doing whatever possible but there are financial constraints. The awareness is spread through radio talks and talks on TV programmes but the frequency of such talks is not known.

> *We cannot go and drag people out of their homes for treatment. It is they who have to change their mentality and come for treatment. We are doing our best to provide oral health care. The OPD will give you how well our services are being given. I cannot tell you about funding because it is not in my hands. Whatever amount we get we spend. There are no services for complete denture because we don't have infrastructure and Dental mechanics for the same. The Dental colleges provide courses for Dental mechanics but they are absorbed in private sector because no vacancies have been created in public sector.*
>
> *We do not need dentists to go out in the field and check students under school health. Even a pharmacist can make out whether the tooth is carious or not.*
>
> *Private sector certainly has an edge over public sector because they have evening OPDs and offer services even on Sundays.*
>
> *I have administrative limitations and cannot stretch myself beyond a certain limit.*

The researcher observed that the DDHO was constantly evading inquires which questioned her capability as a district administrator responsible for oral health

provisioning. The above statements express her lack of motivation to bring oral health issues to notice of the government in a practical manner. Her statements where she herself doesn't see oral health as important as other health issues when she talks of school health, the reader can understand the apathy of oral health services in Jalandhar.

Section II. Perception of patients on present state of oral health care in Jalandhar District

The researcher observed that the presence of infrastructure and motivated Dental fraternity alone cannot raise the status of oral health if those seeking care are not ready to change their attitude. The negative perception of patients towards preventive oral health and oral health being related to pain establishes an attitude of neglect towards oral health. This attitude is the result of how the oral health education has not been disseminated among the community by the care providers which fail to change the long standing myths about oral health. The health seeking behaviour and the way the patients visualise oral health is seen important to document the present state of oral health care in the district of Jalandhar.

4. II.1.Visit to dentist only on pain

The Dental problems if ignored lead to an increased infection which causes discomfort and exaggerates into pain. The consequences of not availing treatment by the patients can be witnessed in terms of the procedures performed as seen in the previous chapter. The increased waiting time at the public hospitals, lack of motivation to pay multiple visits and lack of counselling indirectly contribute to the behaviour seeking of the patients as can be concluded from the previous narratives.

The patients visit the dentists only when they experience pain in their teeth. They believe that pain is an important factor to ascertain the oral health status. Only negligible amount of patients are aware of their oral conditions. Moreover they avoid visiting the dentist because procedures are lengthy and they do not have time in routine.

The dentist at PAP said

> *In spite of me telling them to come for regular checkups and prophylaxis they do not turn up till they experience another bout of pain. Who is to be blamed? The doctors in government hospitals are thought of as not interested in working and giving their best but does anyone compare the difference in the kind of patient inflow in private and public sector?*

Kuldeep Kaur a 47 year old female patient at CHC Adampur said

There is no one in our village to whom we can go for Dental check up and this is the nearest government hospital. I experienced pain a month back and since then I have taken medicine from local medical shop. But now the pain is not going with the medicines. It made me visit the dentist.

Rajpal Singh, a 32 year old Punjab Police employee in CHC PAP said

> *I previously also visited the dentist for pain. I was prescribed medicine and asked to come for treatment. The dentist told me medicine is not the solution to the problem. But I have turned up after one month.*

The patients themselves admit that they do not come for any routine Dental check up. They think it is not a good idea to visit the dentist if they do not have pain. The notion of pain and treatment is rooted in the minds of patients and they perceive oral health as a freedom from pain.

Another patient Sandeep 31 male at Kalabakra said

> *I have not come for any special purpose .I was passing by and thought to get my teeth checked and this is my first visit. I know our personality is affected by bad oral health. It comes to notice very easily and should be taken more seriously. We visit only when we have pain in tooth .But I must say equipments like in private sector are still not present in government sector*.

The relaxed attitude of the patients and their perception about pain and oral health prevents them from taking timely Dental help. The visit to dentist only on pain and not taking the Dental diseases seriously cannot be blamed on the patients alone. With increased rush of patients in routine Dental OPD and no stress given on oral health by the government the patients do not take it as important to be as general body health. This leads to increase in the incidence of Dental diseases and the relation of shortage of information, carious tooth and pain needs to be established in following sub section on measures of oral hygiene.

4. II.2.Toothbrush as only measure to take care of teeth

Oral diseases are most preventable of non communicable diseases and one can easily prevent tooth decay by proper oral hygiene measures as well as assessing ones nutritional and snacking habits.

The only method known to the patients to take care of their oral hygiene was toothbrush. They were not aware of other methods such as mouthwash, tongue cleaners, regular rinsing after meals, and Dental floss for the care of their teeth. They are not provided any knowledge regarding various other methods of oral hygiene during their time in the Dental clinics. Some of them still use *datun* (neem twigs) as an alternate to toothbrush. Most of the patients interviewed did not brush their teeth before going to bed though they admitted to have knowledge of brushing the teeth twice, once in morning and before going to bed.

The brushing of the teeth becomes routinised in the morning ablutions but the technique of proper tooth brushing is unknown to many patients. The patients are allured by the sparkling white teeth of the models but what they fail to understand is tooth brushing techniques is important determinant for maintaining oral health. They ask the dentists for whitening of teeth but fail to understand the importance of daily hygiene. They have developed the perception that once they undergo tooth whitening procedures the teeth will stay clean forever.

The dentist at Adampur

> *The patients although have been become more conscious about their oral hygiene but they still do not practise it in routine as they should do. They want sparkling smile as models on TV. What they fail to understand is how to take care of teeth in routine procedures. They come to me and ask if they will get that smile as on TV.*

The patients although know of brushing teeth twice still do not follow it in routine. The attitude of the patient is very clearly reflected in the ways they take care of their oral health. The care givers even when make efforts to change the perception of the patients who go to the extent of self medication in pain or discomfort the patients are not ready to alter their attitude. But the care givers and the way they motivate the patients plays an important role in the way the patients see oral health as an important part of their lives.

4. II.3. Reliance on self medication as a measure to improve oral health

The patients visiting the Dental facility see oral health issue equivalent to fever which can subside with medicine. They chose to ignore the problem in initial stages and the tooth becomes more damaged. The following narrative strengthens what the researcher is trying to establish.

Kuldip Singh 45 at CHC Kalbakra

> *If we don't have fever we do not take medicine. So if we do not have any pain or problem we do not visit the dentist. I took medicine from village pharmacy and when it did not subside I came here.*

Almost every patient admitted to using medicine from pharmacy and then coming to dentist when the pain exaggerated or the mouth was swollen.

Kanta Rani 42 year old female in CHC Kartapur said

> *I have pain in my tooth since one month. I took the help of local pharmacist and pain subsided for first half of the month. Then the tooth started paining again and family members who visited this dentist asked me to get a check up done here.*

It is not only negligence of the patients but also the failure of the system to educate the patients to come for timely treatment. Although the dentists talked of neglect on the part of the patients but they did admit that the system has failed to address the needs of the community on time. The involvement of the local bodies in holding awareness drives and talks is largely missing in the public health sector.

4. II.4. Reasons to access government facility

The patients when in trouble chose to attend the public health facilities rather than going to private sector. The patients accessing the government facility are from low socioeconomic background as told by the dentist in the District hospital.

> *The patients coming here are from low socioeconomic background and most of them working on daily wages. How do we expect them to visit any private sector???*

Most of the patients visit Dental facility because distance is convenient to them and they have proper access to the facility. Most of the patients lived at a distance of 5 to 10 km from the CHC. The mode of transport was private vehicles or other private transport and the government transport is almost negligible. Due to lack of transport

facilities the patients sometimes miss their appointments or do not come at all to the Dental clinic. . One of the dentists was of the view that the government should start mini buses in the villages to get the patients to the government hospitals free of cost. This would ensure that the quackery is checked and even the women folk can visit the government facilities more easily.

The patients said that the Dental treatment offered at the government hospitals is less expensive than the private hospitals and the medicines provided in government hospitals are free of cost. In the private hospitals there is dual burden of treatment plus medicines provided for any oral problems. Although the oral medicines in form of tablets are present, the lack of toothpastes and mouthwash considered to be extremely important for oral health shows how patients relate oral health to absence of pain.

Mohinder Singh 64 year old male said

> *In public hospitals if you get the treatment done you get medicines free of cost which is not possible in the private sector.*

The patient named Santosh Kumari age 50 years in CHC PAP said

> *Apart from the treatment being less expensive than private sector, I feel very comfortable with the dentist here*.

The patients believe that they come across the same socio economic status among those seeking treatment in the government hospital which they cannot find in the private Dental clinics. Their perception is that they do not feel segregated and each patient is attended with equal attention in the public hospitals. The environment in the government hospitals puts them at ease and the dentists can understand their problem with simplicity than those in private sector. The private sector according to patients is for those who are educated and have money in their pockets.

But there are few patients who feel that there is a need to shift to private sector if they have money. The difference in the view point of the two sets of patients is represented in the subsequent subsection.

4. II.5.Reasons for shift to private clinics

There are some patients who perceive government hospitals to be a place of patient rush and long waiting times. The patients face a lot of difficulty in accessing the Dental care on time. And the long waiting time forces the patients to take help from

the village quacks or private dentists. The private sector caters to the needs of the patients according to the patient convenience and treatment offered at time which patient finds suitable. The OPD timings are such that the patients have to take a day off from their work and they cannot afford to visit the facility again and again.

Sukhjinder Singh 26 year old male at CHC PAP said

> *There is no evening OPD in government hospitals for Dental patients. We do not get day off easily from our workplace. Now also I have got two hours off from my work. Sometimes most of the time is spent waiting due to heavy rush of patients.*

The patients look at the service provisioning in black and white and they fail to understand the intricacies of administration. Although all the actors involved in providing care to patients are responsible for creating such perceptions yet the responsibility of the patients also play an important role. It becomes the responsibility of everyone involved whether care seekers or providers to work in harmony to improve the present state of oral health care in District of Jalandhar.

The dentist at CHC Kartarpur,

> *Even we are at par with medical officers but dentists have never been given that status. We get equal pay as MBBS but we have been looked down upon. But things are changing now. I feel all the Dental fraternity should unite and fight for Dental auxiliaries in hospitals. It will help us to increase our efficiency and introduce some sophisticated procedures too. It is very troubling for me when some patients tell me that if they had money they would also visit private clinics. It doubts my credentials as a dentist. The attitude of the patients needs to change for the dentists.*

But it would be unfair to say that the patients are only responsible for this attitude of theirs. The dentists give reasons of improper infrastructure which compromises their competence as care givers. The patients' attitude is a result of various factors which includes structural factors and the behavioural factors. While the structural factors are the shortage of manpower and infrastructure the behavioural factors are the way the dentists put the fears of patients at ease and how they establish a rapport with them. The mindset is established since long because public hospitals have been seen as the means to get treatment for those who belong to low socio economic class and even if the government denies it, rarely an attempt has been made to change the same. The public health focuses on disease prevention and promotion unlike the private sector where the focus is on individual health and their oral health needs. But the public oral

health sector in District of Jalandhar has been reduced to the curative service provisioning rather than stressing on the disease prevention. The sociological aspect of the disease where the behaviour of the patient plays an important role is completely neglected. Instead little or no effort is made to attach the structural factors and their non addressal with the way patients perceive oral health in District of Jalandhar. The administration tries to put into practise what has been documented of oral health by providing infrastructure but it fails to understand that only infrastructure presence does not help to raise the status of oral health. The epidemiological questions of whey, how, when, where and who are not taken care of when we talk of District of Jalandhar. Although the questions of why and how are explained through the disease initiation and progression the major questions of who all are affected is ignored. The patients are alienated and they are given a feeling of other in the Dental clinic. The administration is equally responsible for the way patients perceive oral health. Their behaviour is the translation of their experiences with the health facilities as well as oral diseases been seen as a non life threatening. The various factors which contribute to oral health constantly interact with each other for the present state of oral health in the District of Jalandhar. The administration fails to lay equal stress on all the factors and work for the improvement of oral health.

Conclusion

The oral health issue and its provisioning are seen in silos and no attempt has been made in District Jalandhar to deal with the issue in a holistic manner. The various actors like the government agencies or the dentists do not look into oral health services with seriousness as they look at general health issues or disease programs. The focus is concentrated on the disease programs and evaluation of the same in the field. There is an involvement of the outreach workers for community education for other health programs ignoring oral health. No stress is given on changing the behaviour and improving communication with the community on oral health issues. The government as well as community do not work in coordination with each other for achieving better oral health status. There is a lack of research onto what constitutes oral health reducing it to micro organisms and disease causation. The present attitude of the patients towards oral health is due to failure of the system to address their needs through infrastructure present in the facilities. The way the oral health is organised and addressed gives an idea on the way it is conceptualised. The

problem in conceptualisation is translated into the way it is addressed in the field for oral health services. With lot of focus on the curative aspect and ignoring the social dimensions of oral health, the crisis increases when the patient and their behaviour is not reflected or laid down in planning for oral health services. The road to oral health is not only seen with respect to laying down various policies and plans for the same but also involving the community for decision making process and tailoring their needs by building a rapport with them.

CHAPTER 5: DISCUSSION AND CONCLUSION

This chapter tries to put together all the linkages established by the data collected relating it to the review of literature and tries to draw recommendations from the findings of the study. The discussion will move from what was found to be missing in the public health sector for oral health in District of Jalandhar and what measures can be taken to ensure that it is not ignored. It will also try to critically look at the oral health from the view point of the care givers, care seekers and the researcher as available in Jalandhar. It will explore and relate with field data what is visible and what needs to be made visible to the authorities and address oral health in a more serious manner. Although the previous chapters on data tried to establish the qualitative and quantitative aspect of the same, this discussion will try to highlight relation between all of them. This chapter describes the findings by relating them to different studies to stress on what are the gaps in public hospitals in District of Jalandhar and various factors affecting oral health which are addressed in this dissertation. Being a Dental graduate the researcher finds it interesting to relate the status of oral health with other dimensions of health and social well being.

Discussion

5.1. Findings of the study in public health settings in District of Jalandhar

Of the total OPD the percentage of Dental OPD is 5 to 10% in public hospitals in the study District. The patients and the dentists complain of the increased waiting time and rush in the Dental department but on the other hand the Dental OPD out of total OPD presents a small percentage. The various factors contributing to the low OPD will be discussed further in detail. When we talk of the procedures being performed extractions formed the maximum percentage of all. The procedures of denture and orthodontics are missing in the daily OPD of the government hospitals. The service of denture is provided during the Dental fortnight whereas there is complete absence of any orthodontic treatment available. The Dental material needed which is needed in the daily OPD is sometimes taken from private sector by spending the user charges collected in the Dental OPD.

If we talk of the manpower available out of all the four CHCs one CHC at Kala Bakra had a Dental specialist who was a Pedodontist and there were two Oral Surgeons in District hospitals. The other three CHCs had a Dental graduate and no CHC had a Dental auxiliary or a Dental mechanic. There was one Dental hygienist and one Dental mechanic at the level of the District hospital. All the public health facilities surveyed in Jalandhar had necessary Dental equipments as prescribed in the IPHS 2012. The provisioning of denture is done during the Dental fortnight which is a Dental camp organised for fifteen days throughout Punjab. The government provides a fund of one lakh for Dental fortnight in District of Jalandhar and the dentists from various CHCs are clubbed at different places to deliver services. Due to heavy rush of patients all the patients are not provided dentures and the lottery system is used to provide dentures to the patients. The patients of oral cancer are not provided any services at District hospital and they are referred to Government Medical College and Hospital Amritsar, Oswal hospital Ludhiana, PGIMER Chandigarh and Patel hospital Jalandhar. Of all these Patel hospital is a private hospital empanelled with the District hospital in Jalandhar where out of all the cases of cancers, oral cancer formed 4% of the total cases in 2014. These cases did not necessarily belong to District Jalandhar or state of Punjab but were also referred form the neighbouring states. The scheme being run for the cancer patients in Punjab since January 2014 (Mukh Mantri Punjab Cancer Rahat Kosh Scheme) provides a compensation of one and a half lakh rupees for the treatment to all patients except the government employees and those under health insurance.

Under School Health in District of Jalandhar, the Dental caries formed 2.5 % to 5% of the total diseases in school children who were referred for treatment to the public health facilities. The role of teachers and Medical Officers in the School Health Program is of referral and diagnosis rather than prevention and health education.

The study findings reveal that only method patients used for taking care of their teeth were tooth brush and *datun*. They were not provided information regarding other methods of oral hygiene as Dentalfloss or mouthwash. Some of them still relied on use of *datun* that is the chewing of neem twig to take care of their teeth. Any knowledge regarding the relation of the oral health and the general health is seen missing in the patients attending public health facilities in District of Jalandhar. Most of the patients accessing services in the government sector were from low socio

economic background. They chose to visit government facility because of the easy distance from their home and they found oral health services in public sector to be economically convenient. They found a huge gap in the fees for Dental treatment in the public sector and the private sector and they think the private sector is out of their reach.

The various findings and reasons for the same will be discussed in detail in the rest of the chapter and the researcher will try to draw some recommendations out of this study for the betterment of the oral health services in the District of Jalandhar.

5.2. Determinants of oral health and their place in public hospitals in District Jalandhar

There are various factors which determine oral health services and its utilisation in a population. The relationship of all these factors with one another and the services provided help to determine the oral health enjoyed by people. The presence or absence of infrastructure, its relation with various elements of oral health and way it is addressed is very important.

The discussion on the state of oral health care in the District of Jalandhar when it comes to presence of infrastructure presents a positive scenario as far as the presence of equipments is concerned. The CHCs as well as the District hospital have the instruments needed for the Dental treatment as mentioned in the IPHS 2012. The facility level study and report in 2008 by Punjab Health Systems Corporation showed that the District of Jalandhar out of ten districts surveyed showed presence of proper infrastructure in public hospitals. (NIHFW, 2008)

The presence of dentists, instruments and Dental chairs in District of Jalandhar does not mean that provisioning of oral health services is good. The public hospitals lack class four employees, Dental auxiliaries and the pharmacists which indirectly affects the working of the dentists in public hospitals in Jalandhar District. A study available on public hospitals stresses that the main challenges to be addressed in the public health are the scarce manpower, infrastructure and increasing patient load. The presence of infrastructure does not mean that the services being provided are sufficient to meet the demands of the patients. Various others factors like paramedical

staff and provisioning of water, electricity etc. also control the provisioning of services. (Bajpai, 2014)

There was a lack of incentives in oral health services for the outreach workers who could motivate the community to seek oral health services in public hospitals in District Jalandhar. Most of the population believes in getting private services rather than accessing the public hospitals in District of Jalandhar. When we compare it with a study in the neighbouring state of Himachal Pradesh it was seen that 83% of the households use public health facilities and the public hospitals are very well capable of being utilised by the patients. The reason for the same was enumerated to be the provisioning of the incentives and improved work culture in the public hospitals in Himachal Pradesh. (Goel & Khera, 2015)

Not only the patients in routine OPD suffer due to lack of facilities but those suffering from oral cancer needing emergency care have to avail services in empanelled private hospital in Jalandhar. The referral of patients of oral cancer to city based private as well as other hospitals out of the District puts additional financial burden on the patients. Oral cancer is seen as the fourth cancer in males and the incidence of sub mucous fibrosis which leads to cancer, is on an increase. Tobacco consumption is seen as an important cause for the increasing prevalence of oral cancer. (Ali,Waseem & Saleem,2011)

The lack of IEC activity for oral health prevents dissemination of information to the general public and the preventive aspects of the oral health which can be provided through education are ignored. The media concentrates on providing information on the dates of Dental camps but talks regarding preventive aspect of the oral health are not given frequently on TV or radio in Jalandhar district. As mentioned earlier oral health does not only talk of the healthy dentition and mucosa but it reflects the health of the entire body .Messages and posters which talk of lower consumption of sugar and proper brushing of teeth should be disseminated through media. (Benjamin, 2010)

The provisioning of the services because of presence of a Dental chair and the dentists in public hospitals in Jalandhar is considered to be efficient to provide the oral health services in the District by the administration. The researcher on the other hand feels that Dental clinics are not able to deliver even basic clinical procedures in efficient

manner. The various other factors such as social, economic and political which lead to proper oral health are ignored by the administration.

Apart from the curative services mentioned above the dependency of oral health, other factors which need consideration are the determinants which interplay with each other to provide better oral health. The determinants of oral health range from diet to general body conditions to beliefs and norms and practises of the people in the community. These practises determine the oral health of the individual. The neglect of the social impact of oral disease is widely seen and very few studies in India talk about it. Like other non communicable diseases the oral diseases are also related to the social, economic and political conditions. These determinants are not discussed in detail when it comes to issues of oral health in the study District. The oral cavity is seen as separate from the body of the individual and the policy makers do not address these issues in detail while laying down policies and plans.

In the study District interview with those at senior position in the administration of public hospitals and the dentists, reflected their need to address oral health issues only in terms of therapeutic services being provided. None of them talked about social epidemiology of oral diseases which stresses on addressing the various social causes of oral diseases. The administrative politics in the government facilities in District of Jalandhar to politics in policy making affects the provisioning of the oral health services. The procurement of material by submitting requirements and involvement of lot of paper work directly influences those providing the oral health services and indirectly influences those seeking care. The dentists feel helpless at the administrative high handedness and the patients have to bear the brunt of the absence of material and revisit the facility for treatment. This certainly influences the way the patients perceive oral health services and the manner in which they seek care. Most of the patients visiting the public health facilities in the District of Jalandhar are from low socio economic background and lack formal education. The low level of oral literacy as shown in a study in Tehran was seen responsible for their less self reported oral disease condition. It was also responsible for poor oral health and lack of proper brushing. (Sistani et,al., 2013) The dentists in public health settings of Jalandhar blamed the patients for their casual approach towards oral health. A study shows that blaming people or crediting them for their oral health is not appropriate as their life determines the type of oral health status they enjoy. Increased income leads to better

access to oral health care and increased education better in oral health promoting activities. (Biradar et al.,2013) Looking beyond the curative services there is a need to emphasise on various determinants of oral health in the study District.

These social determinants act in coherence with the personal and biological factors to shape the risk behaviours, access to health promoting resources and exposure to environment. Understanding health disparities becomes important when older people visit dentist less frequently and have poor oral health and low life quality. Oral health is governed by political, cultural and economic factors. These factors are important to stress on the preventive aspects of oral health when oral health can be seen away from the linear causation theory. The distal and proximal factors which affect oral health can be seen in the following terms. The distal factors include the macro social factors of legal hold on the sugar products and the Dental service in public health system and political help or Dental services, natural environment and inequalities in oral health delivery and the Dental health professionals and their distribution. The proximal factors include the health behaviour, psychology of individuals; biological process and the use of Dental health services on how they are needed. (Patrick et al., 2006) Although the distal factors are addressed to an extent and efforts made to provide services proximal factors are ignored and they are hardly taken into account. These are the factors which are invisible and need constant attention in the District of Jalandhar.

The increase in the Dental diseases in spite of the advanced technology calls for looking for the causes in form of risk factors which other NCDs share. Training for need for addressing oral health issues by relating to social factors, improving health care for under privileged after addressing inequalities for oral health, building the links between general health and oral health and linkages to other programs (Federation, 2013).There is a need for all oral health professionals to take into consideration the oral health of their patients in context of their environment experiences. Integration of all these factors into the oral health service provisioning would provide physical and mental support to the patients. The Dentists in the public hospitals in Jalandhar are worried about their own reputation as a clinician but what governs their reputation is widely misunderstood by them. The reputation and competence though measured by their clinical work by the administration the patient’s measure in the way the dentists address their doubts and needs.

When we talk about the maternal and child health we hardly establish any linkages with the oral cavity and feeding patterns of children. Malnourished children are already on an increase in the country as mentioned in the review of literature and minimal connection of nutrition is established with compromised oral conditions in the field. The policies are constructed keeping in view the figures which can be misleading sometimes as no comprehensive surveys by government agencies have been carried out. The lack of proper oral health and compromised dentition is a big hurdle for school children missing school and not having proper meals. The study District's lack of integrating the general health with oral health stems from the way the problem is conceptualised. The reduction of oral health to Dental clinics is responsible for the way the services are being provided and oral health being looked at.

5.3. Role of dentists in School Health Program in Jalandhar District

When we talk of determinants of disease and how environment plays an important role the subject of school oral health needs special mention. School is the place where children spend most of their time after home. Given the growing incidence of oral diseases as already mentioned in the review of literature healthy oral habits are an absolute necessary to control oral diseases which can be inculcated at young age in schools .The School Health Program in is being run in the government and government aided schools. Most of the students attending the government schools in District of Jalandhar are from low socioeconomic background. To cater to the nutritional needs of the students, the government has started the mid day meal program but has failed to recognise that proper nutrition is possible if the oral cavity especially the teeth of the children are in a healthy condition. The innovative approach to solve the issues of oral health along with other general body conditions is missing in Jalandhar.

The field survey in the District of Jalandhar regarding the school health and the role of dentists in providing the school health services does not present a positive picture. The lack of Dental auxiliary or lack of training of the medical officers to recognise oral problems does not define the oral problems in a significant way. The teachers are not provided any knowledge regarding brushing techniques by medical officers going in the field to provide school health services. What seems most important for the

Medical Officers is diagnosing and referral without giving the education on how to prevent Dental diseases and how to relate them to general body health. The idea that even a class four can recognise oral problems as said by senior administrator poses a serious threat where not only the oral health but the position of a dentist stands questionable. The dentists acknowledge that there is lack of any mobile Dental vans even at the District hospital and they do not provide any services to school children due to lack of any Dental chair in field. The school health though provides referral for the children suffering from the Dental diseases but these cases are not followed up in the public hospitals. The role of the parents especially the mother is not defined in the School Health program. It is not clear on how many students being referred for the Dental disease actually inform their parents and seeks treatment or how motivated the teachers are to inform the parents of the concerned students. The lack of work force in the facility and a huge rush of patients prevent the government from sending the dentists out in the field.

In low income and middle income countries School Health Programs are seen as a means to promote health and provide health education and screening but the oral diseases are not treated due to financial constraints .Oral health education on diet and non use of tobacco in growing age group can provide information on oral heath as well as develop good oral habits as the adolescents enter childhood. (Jürgensen & Petersen,2013)

Involvement of peers and role models in School Health Program (as told by AMO Kartarpur) is completely missing and the issue of oral health is mechanically approached in Jalandhar District. The peers belonging to the same age group are easier to relate to than the adults but this approach is completely lacking in the District of Jalandhar .The teachers involved in the school health check the general hygiene of the children during the prayers and occasionally provide lectures on the healthy and clean body. The referral of school children and follow up by the teachers whether they visit medical facility or not is under doubt. Although the teachers are entrusted with duties to bring the students to CHCs yet many a times' support of the parents is needed. Sometimes the students do not inform their parents regarding their Dental visits and even if informed the parents do not pay attention to it. The School Health has been reduced to a formality than making it as a platform to prepare healthy population. No studies on the referral and follow up of the students suffering from

oral diseases are available. There are no fun activities related to health where students can participate as drawing competition or story writing which teach the importance of good oral hygiene. The more the students indulge in such activities, the more they learn the value of good oral health.

A study done in Pondicherry showed the attitude of teachers where half of them consider education necessary for oral health and thought it's their duty to do so. They believe the teeth should be checked by dentists not only for providing treatment but also for prevention of oral diseases. But they also see the role of parents equally important to look after the oral health issues of their children and take them to dentists for regular check up. (Sekhar et al., 2014)

The percentage of Dental caries for which the school students were referred to the dentists in District of Jalandhar was 2.5-5% which is unexpectedly lower than the studies done in other states of India. The reason for the same could be the failure to diagnose the caries condition by the Medical Officers. A study in rural high school in Sundarban showed the prevalence of Dental caries to be high in the school children in low income group family. The socio economic conditions and the lack of basic oral hygiene contribute to the increase in the Dental diseases. Those school children who brushed twice had less Dental caries than those who brushed only once. The study found the prevalence of Dentalcaries to be as high as 72% .It also stressed upon that the education of mothers has an important play a role in improving oral health. (Datta & Datta,2013)

5.4. Dentist patient relationship: Place in public health institutions

Although the health seeking behaviour of the patient depends on a number of factors, the relationship with the dentist is an important determinant to it. The dentist patient relationship in the public hospitals in District of Jalandhar is very formal as observed by the researcher in the field. Due to lack of time because of heavy rush of patients the dentists have to be very mechanical in approach. The patient enters in a world of unknown and has lot of apprehensions and questions which remain unanswered and the patient moves out of the clinic uninformed. The rural population visiting the facility in District Jalandhar are less educated and less aware of oral health. Similar results were found in the study in Sunam city of Punjab where the oral health attitude

was related to the increase in the knowledge in the urban and rural counterparts. (Singh et al.,2012)

The most important component in seeking care is more of dentist patient relation than the role of the dentist as a clinician alone. The friendly approach of the dentists where the patients are explained treatment options and instilled confidence determines their care seeking behaviour. Oral care is not about the patient changing their behaviour but how the dentist respects their concerns and views. (Sbaraini et al.,2012) If the patients are not able to change their behaviour the system is to be equally blamed for it. The way the care givers treat them and provide services also shapes their behaviour towards oral health. The dentist constantly complained of the arrival of the patients in the Dental clinic only on pain in the tooth in the study District. But none of them talked of their moral responsibility of changing the attitude of the patients. The administration very conveniently blames the patients but the neglect patients face at the hands of care providers is not discussed. The training of the dentists in Dental college lacks stress on behavioural sciences and how to deal with the patients. It is very theoretical in nature lacking training in treating each patient differently and looking beyond the oral cavity when a patient walks into the Dental clinic. This influences dentist patient relationship where the patient experiences a feeling of alienation and dentist gets a feeling of supremacy.

The patients visited the dentist only in pain and most of them did not come after pain relieved with medicines the dentists prescribed in Jalandhar. If the patients do not come for follow up or after taking medicines it provides a negative impact on the way the dentists deal with such difficult patients and the dentist patient relationship is affected. A study done in the north Indian Dental college showed that patients cited as pain and extraction being the reason for visiting the dentist. There were misconceptions of Dental treatment being hurtful and painful which prevented them from seeking help. (Singh et al.,2014)

In a study done on college students in America, most of the patients were afraid of visiting the dentist. The young adults feared of getting teeth cleaned, getting shots and drilling of teeth were major factors for avoiding Dental treatment. (Nabors & Iobst ,2012)

Most of the patients in the public hospitals in Jalandhar were dependant on the dentist for the treatment to be offered. Although most of the dentists were responsive to needs of the patients, there were some who maintained a professional distance and were not very welcoming. The difference in the Dental OPD as described in the data chapters can be attributed to the behaviour of the dentist as a professional as well as a care giver and counsellor. The various myths associated with treatment of Dental disease still prevail in the community. The patients are sometime reluctant to get treatment done because they think Dental treatment weakens the teeth further. This attitude forms the oral health seeking behaviour, reluctance to accept treatment and lack of trust on the care providers which affects dentist patient relation. It should not be seen as the ignorance of the patient but as a challenge to the dentist to address the patients concern when they walk into the Dental clinic. The difference in the behaviour of the dentists in various public hospitals and the way they perceive oral health is translated into the type of care they provide. The dentists can upgrade their clinical knowledge by joining short term programs for which government provides leave, but there are no programs which talk of the relation with patients and rapport building with them and the way these should be addressed.

The health personnel should be flexible to make changes in the treatment to maintain the patient dentist relation. The flexibilities in the dentist patient relation not only improve the confidence of the patients but also motivate them to take care of their oral health in a better way. Dental phobia cost and other factors which prevent compliance for Dental treatment and affect dentist patient relation. The level of apprehension prevents patient to follow the treatment advice given by the dentist or return for treatment to the Dental clinic. This affects the dentist's efficiency to work and they describe such patients difficult to handle. (Freeman, 1999)

5.5 .Lack of preventive approach in oral health

Oral diseases are largely preventable and there is a need to create conditions which promote good oral health. The major limitations of the oral health clinical interventions and education are that they do not stress on the invisible factors which lead to poor oral health. The reductionist approach which addresses oral health as complete absence of microorganism in the oral cavity, is being followed. The programmes for oral health are not integrated with other general health initiatives

being run. The clinical approaches are costly and they depend on trained oral health professionals for their delivery. (Watt, 2005)

Preventive approach needs to be introduced before the person falls ill and diagnosing the diseases in the early stages and treating it as soon as possible. Preventive oral health care is directly beneficial to patients as well as the dentist. Neither the patients have to go through the painful experience of toothaches and extractions nor have the dentists to provide elaborate treatment. Not only it helps in reducing the patient load but also is an economical way to prevent disease with less investment. This minimising of needs on the part of the patients helps health system to function smoothly and efficiently. The patients like child patients where the disease can be curbed at an early stage and the geriatric patient where they can be provided a better life ahead need special mention when preventive health care is focussed on. The school children are referred to Dental clinics through school health but geriatric patients are not provided special service in regular OPD in the District of Jalandhar. The preventive approach is largely missing in the Dental clinics in public hospitals in District of Jalandhar.

Preventive approach in the public hospitals in Jalandhar District is reduced to diagnosis and health education. This approach is considered to be constricted and cut off from rest of the body of the individual. There is no common risk factor approach where the links with other health promotion programmes is established. This approach helps to establish links among countries where the distribution of oral health services is uneven. (Oswal, 2010)

The importance of preventive care lies in the fact that now oral health has transitioned from being one dimensioned approach to multi dimensional in nature which includes concepts as physical ,psychological and social in nature. Avoiding smiles due to bad oral health affects the social relations. Eating, chewing and disturbing of sleep due to poor oral health affect the self esteem of the persons and they cannot maintain healthy social relations. (Huff et al.,2006)

In the study district, the extraction of tooth is not only inexpensive as compared to tooth saving procedure but is also seen as an easy solution to all other alternatives available. The patients do not have time for sittings for saving the tooth and the dentists lack any aid for performing the tedious procedure of RCT. Even if the root

canal is completed the tooth is not given restoration in the form of a tooth crown. The officials blame the patients for the present state of oral health in District Jalandhar for which the chapter on qualitative data has provided the reasons. The non judicious use of the present resources and private practise by the dentists working in the public hospitals in Jalandhar puts oral health services into doubt. The gap in the patients visiting the Dental OPD and those being treated is huge and whether the patients are being referred to private clinics of the dentists or they themselves do not return for follow up is doubtful.

Moreover the outreach workers are not involved in providing education on oral health in community in the District of Jalandhar. They are an important link between the community and the health care services. A study was done in Ambala District where their knowledge attitudes and practises were checked for oral health. Majority of them were not aware of the relation of oral health to general health and nearly 91% of them were of opinion that with old age tooth loss is a natural phenomenon and only 6.6% believed that dentist should be visited every six months while 35.1% were under the myth that tooth extraction can lead to vision impairment and 93.9% did not know about flossing. (Aggnur et al.,2014)The stakeholders, the policy makers, the dentists, community, and other health personnel do not work in coordination with each other to improve the status of oral health in District of Jalandhar.

Apart from the specialist's services in CHCs, the Primary Health Centres are seen as the entrance for the medical patients but not for those suffering from oral problems. The Medical Officers in District of Jalandhar did not get any training on the diagnosis of oral problems. A similar survey was done in Solapur District in Maharashtra for the medical officers working in PHCs regarding their knowledge of Dental problems. Most of them faced difficulty regarding referral of the Dental patients and possessed inadequate knowledge regarding Dental problems. **(**Dr. Cauvery & Karbahri,2014)

Not only has the limited knowledge of the Medical Officers for oral health but also the lack of Dental auxiliaries in public hospitals in Jalandhar compromised oral health services. The Professionals Complementary to Dentistry (PCD) is those which can help dentist deliver the services and reduce workload of the dentists. These include Dental auxiliaries and medical officers which can play an important role and provide basic oral health education. The clinical cases are delivered by the PCDs and the rest

are referred to professional dentists for treatment. There are studies revealing that PCDs can screen for oral diseases as effectively as dentists. They can also carry out health promotion activity in the remote areas where there are no practising dentists. (Mathur,Singh &Watt, 2015)

5.6. Lack of holistic approach to oral health

Oral health is considered to be a reflection of the general body health. As already mentioned poor oral hygiene can lead to bad breath, tooth decay and various gum problems. The oral hygiene products are considered very crucial in maintaining the oral hygiene which consists of toothpastes, mouthwash and Dental floss. The anti caries activity of mouthwash has been found to be useful in reducing the caries burden. (Oluremi et al., 2010) The mouthwash reduced gingivitis and plaque when tested for its efficacy. The mouthwash causes decrease in the number of micro organisms and reduction in the depositions on the tooth. (Pereira et al.,2011) Fluoride tooth paste use is very effective in reducing caries and in children they experience less decay of tooth .If the brushing is supervised in children till 15 year of age it is more effective to prevent spread of any Dental diseases. Use of Colgate total on the teeth reduced the antibacterial activity and decreased bleeding in gums and deposition on tooth surface. (Rover & See,2014) The easiest solution to prevent tooth decay is proper tooth brushing twice daily and avoidance of sticky foods. Most of the patients in public hospitals in District of Jalandhar brush but do not follow or know proper brushing techniques. The use of *datun* is widespread in the rural background as recorded in the field survey. A study says that oral hygiene awareness data is still not available in a comprehensive manner in India. The use of *datun* instead of toothbrush is still prevalent in rural India. Myths regarding Dental treatment and the lack of knowledge of Dental diseases are more in less educated subjects. (Singh et al., 2013)

But the supply of mouthwash is not regular in the CHCs and rest of oral hygiene products such as toothpastes, Dental floss etc. are to be bought from outside on dentists prescription. The general practitioners are provided with a list of medicines and they are not allowed to prescribe medicines from outside. The dentists on the other hand do not have a regular supply of oral hygiene products and they are not provided with a separate list of oral medicines. The intersection of the public private provisioning in the public sector when it comes to oral products needs to be looked at

with more detailing. The public private collaboration is missing in the public sector in Jalandhar and patients have to rely on private pharmacists for oral hygiene products. The private sector which is already a big market when it comes to providing Dental services is also a provider of oral hygiene products in District of Jalandhar. The administration though denies the role of private sector, but the unavailability of the oral hygiene products involves the private sector for provisioning of the same.

In the District of Jalandhar most of the patients were aware of the toothbrush and toothpastes as means of taking care of the teeth. The government not only lacks preventive approach in terms of any oral health education but it fails to provide oral hygiene products. Most of the patients coming to the CHCs in the District of Jalandhar are of the view that they will not only get curative treatment but also medicine and other products necessary for oral hygiene. For an individual good oral health would mean adopting healthy behaviour for oral health and for providers it would mean using their professional knowledge and competence to prevent and early treatment of oral diseases.

The westernised medicine looks at the oral disease in way of curing it through provisioning of oral hygiene products or through disease treatment. The alternative system of medicine such as Ayurveda which is available in the public hospitals has oral hygiene products to be used for oral hygiene. It concentrates on the use of the herbal products along with focus on person's lifestyle and well being. The AMOs posted in the CHCs at Jalandhar are required to be in field for five days in a week to cater to school health program. They are not available for the patients suffering from general ailments who want to access Ayurvedic system of medicine and they hardly get any patient of oral diseases. The supply of the oral hygiene products in general OPD is not available in regular supply in District of Jalandhar. Alternate systems of medicine which can work in coordination with the Dental department are mostly ignored. The lack of interaction between various departments in providing good oral health is seen completely missing in the public hospitals in Jalandhar. Working of oral health professionals in coordination with the other departments would raise the status of oral health. (Williams, Sheiham & Watt,2014)

In Ayurveda it is documented that the Dental health of each person varies according to the body constitution. There are various remedies available for the treatment of

Dental diseases in Ayurveda where various Ayurvedic procedures and remedies help to cure them and prevent further spread of diseases. (Dr. Anamika & Gulati, 2014) Herbal tooth powder and pastes are available which help to control tooth decay, bleeding gums, halitosis and other periodontal diseases. It is considered to be non toxic approach to treat oral diseases. The normal dentist looks at the disease in a clinical manner and treats it but holistic treatment is catering to nutritional habits and eating along with restoring the tooth. Holistic dentistry aims at union of the allopathic treatment along with alternative health care. (Thakur,Bagewadi& Keluskar, 2011)The lack of holistic approach which can be preventive in nature and curb the further spread of oral diseases is very important to be taken into consideration and administration should work for establishing coordination of other departments with Dental clinics.

5.7. Differences in the private and public sector Dental clinics

There is a vast difference in the way dentistry is practised in public as well as private sector in District of Jalandhar from the way the dentists in public sector talk off it. The first and the most visible of all the differences which to the care givers in the field pointed out was that the dentists in the private sector are very motivated to work because of the personal connection with the clinics. The variation in the data across and within the public hospitals shows that the attitude of dentists in the public hospitals determines their working in Dental clinics. From the interviews with the dentists the researcher observed that those working in the public sector lack that feeling of oneness with their clinics. They are answerable to the administration for their decisions for the Dental clinics in the public hospitals. Better use of technology and expensive procedures, tailoring of needs of patients and the presence of Dental assistants are available in the private sector. These differences are not only due to the structural constrains but also due to the type of patient inflow. The public hospital gets patients from low middle class whereas the private Dental clinics have the patients who are more educated and from the upper class. The private clinicians can charge high fees for Dental treatment and use the money earned to buy latest technology and use new techniques. They are not answerable to any authority for their clinic maintenance and expenditures. The public sector lacks all these luxuries and these factors play an important role in the way oral health services are delivered. The government also provides the services and infrastructure depending on the patient

load in the public hospitals. The government does not consider necessary to upgrade the service provisioning and those already in need of health services are not literate enough to put their demands forward or complain although they have great treatment needs. . This is in coherence with the study in Brazil where it is seen that people with low socioeconomic conditions have greater treatment needs and they tend to avail services in public sector. (Pinto,Aberu & Vergas,2014)

The patients from well off strata are very reluctant to accept treatment in the public hospitals. The government employees who do not have to pay the user charges in the public hospitals do not avail services there. In the view of the dentists the government employees in white collar jobs feel that it does not match up to their status to seek treatment in public sector

The PHCs in Jalandhar provide only referral services for the patients suffering from oral diseases. There is no government Dental college or hospital in the District where the patients can avail treatment at low costs. This can decrease the patient load in the public hospitals in the District as well as provide Dental specialist services under one roof. The researcher as a dentist knows that there a lot of private hospitals in Jalandhar and they do not want any government hospital to be established because it would affect their “business”. The politics involved in the oral health services is not spoken off nor is any attempt made to relate it to the present state of Oral health services. The invisible factors which work on large scale should be noticed to bring the oral health services at par with the general health services.

The PHCs only provide referral services in the area of oral health in Jalandhar District. The Medical Officers posted there are not provided nay knowledge on the recognition of oral diseases. A study done in Sangamner where there were two PHCs without any dentists the patients were depended on the Dental College for Dental treatment. Most of the patients were from low socioeconomic background. The patients reported the increased waiting time while some reported the distance from their residence as the reason for the low OPD of the hospital. Most of the patients were daily wage earners and frequent visits meant loss of their wages. The Dental students attending the patients reported the attitude of the patients towards oral health as well as missing the appointment to be the reason for low OPD. (Bhushan, 2014)

Not only the lack of dentists in the rural areas is an important factor for determining the oral health of population but the barriers such as emotional barriers, physical barriers and financial barriers also prevent the patients from seeking help in the public sector hospitals. (Ambika,Puja & Veeresh, 2015) Cost is an important determinant in accessing oral health in the public facilities and fear, stress and relation with dentist as another factor. (Bahadori, Ravangard & Asghari,2013)

The patients accessing Dental services in District of Jalandhar are mostly daily wage earners and visiting the dentist means missing a day's work. This is another reason which can be attributed for the patients not turning up for follow up or appointments. Self employed people have to miss earnings to visit a dentist and they do not have money to access the Dental services. The patients rely on the public transport to visit the dentists and when they do not get it they do not visit. The Dental fears of pain can be another reason for the reluctance of the non acceptance of treatment by the patients (Ambika,Puja & Veeresh,2015)

The private sector which is expensive and inaccessible financially to these patients pushes them to seek help from quacks for their oral health problems. There are no checks on quacks and their business is thriving. They guarantee painless and immediate treatment and with less number of dentists in rural areas as compared to private the patients are drawn to them. These quacks have worked as Dental assistants in Dental clinics and are not concerned about sterilisation. They use low cost instruments and start their own practise in the rural areas. Use of unethical practise certainly compromises the oral health status of a person. (Divia et al.,2015)

The reasons for increasing practise of quackery is the lack of ability to pay in private Dental clinics or the failure of government to keep a check .It leads to increase in already existing problems and can deteriorate the patients oral health further. The quacks provide treatment using unsterilized equipments where oral mucosa bones and other oral tissues become involved due to infections. (Rastogi et al.,2014)

The recent advances in oral heath about which the dentists in government hospitals in Jalandhar spoke in informal talk are the ones which they feel can never be used in the public sector. Neither the dealers will profit from supplying those materials in the government sector nor will the government be ready to bear the expenses of treatment which the class of patients availing services in public sector cannot afford. Moreover

lack of skills and training in the public sector hospital is another determining factor in the use of latest advances in oral health. Many dentists in the public sector either have collaboration in the private sector or have their own clinics opened up in name of their dentist spouses or in partnerships. The lack of sincerity of the dentists working in the public sector leads to the degradation of the profession.

The patients in the public sector in Jalandhar wanted to access the private sector because of long waiting hours in public hospitals as well as no evening OPD for which they had to miss their daily wages. In India, patients prefer to get treatment from private sector because of the absenteeism in public sector plus public private practise and shortage of supply and staff. Due to the low public health spending in India, there is an increased out of pocket expenditure (Caucus, 2012)

A similar study showed that patients received more of extraction services than the preventive or restorative services in public hospitals. The long waiting time and appointments add to further deterioration of oral health and tooth has to be extracted. The public health sector and its service provisioning determine the patient attitude to oral health. Their behaviour is limited by the public health system and the way it addresses the problems of the patient building the negatives or the positives in the minds of the patient. (Brennan,Luzzi & Thomson, 2008)

Although the government has built the public hospitals to provide health services to patients who are from low socio economic background but in District of Jalandhar they fail to provide an environment which is patient friendly. The Dental clinics can be accessed till afternoon and no dentists even for few days a week is available. The government officials do not try to experiment or introduce some novel changes in the evaluation of the oral health services. The young dentists working in public hospitals in Jalandhar are reluctant to provide new ideas to improve oral care. The various levels of administration and the pressure to portray what is best don't let the facilities improve.

5.8. Education of the young dentists and intersection with services in public hospitals

The education of the dentist and the specialisation they opt for after competing graduation is a matter of serious concern. The services which are not available in the

regular OPD or completely missing are those for which specialisation is required along with proper Dental laboratories. While it has already being mentioned that the lack of infrastructure and funding is the reason for missing specialist services there is a need to understand it from the way the dentists are trained and how do they understand their responsibility as care providers.

During the years 1991 and 2013 the Dental institutions in India have expanded by 668%. Till 2013 the state of Punjab had two government Dental colleges and 14 private colleges till 2013. The annual production of dentists in Punjab was 80 from government colleges and 1210 from private colleges. The increased growth in the production of dentists has not been able to fill the vacant posts in the public sector. The workforce crisis in India needs to be addressed in a more comprehensive manner. (Hazarika, 2013)

The lack of motivation of the dentists to work in the public sector comes from the way they are educated and trained. The profession of dentistry is saturated yet there is dearth of dentists in the public sector. The Dental fraternity which was interviewed is disappointed at the quality of education being provided to the dentists. Due to commercialisation of Dental education is the stress is on providing clinical training alone and Dental health falling within the realm of public health is ignored. The departments which are concerned with the community service as Community Dentistry also tend to hold camps and provide curative services rather than giving preventive health services.

The Dental education in India is theoretical more than practical and there is a lack of research based education in dentals schools. There are no case presentations or journal clubs to decide and discuss the treatments offered. The students are not trained in analytical skills and they are not trained to provide treatment options for single case. (Elangovan et al.,2010)The reason for choosing dentistry as a career by young professionals is job opportunities where they can open and run their own clinics and economics. They want to choose the branches of orthodontics, endodontic and oral surgery as specialities in Dental education. (Aggarwal et al.,2012) The branch of public health dentistry is not seen with equal respect as it is a non clinical branch with fewer perspectives in clinical practise and very few Dental graduates opt for it.

The way the Dental education is provided and translated in the field affects the public provisioning of Dental services the most. The Dental clinics in CHCs in District Jalandhar cater to basic procedures of tooth fillings, extractions and oral prophylaxis. The tooth if extracted in the private sector is replaced through options of Dental implants, removable fixed denture, partial dentures and fixed partial dentures. None of these procedures are available in the public sector in the District of Jalandhar. The lack of these Prosthodontic procedures due to lack of specialists and how it affects the geriatric population should be looked at with more significance. It not only affects the masticatory functions but also the appearance of the patients. The person looks much older with the loss of teeth and it influences their psychological well being. The chief objective of the Dental care is to provide natural tooth functions throughout life. The loss of teeth in geriatric population affects their ability to chew, their general health and nutrition. The Dental caries is seen as responsible for tooth loss followed by periodontitis in old age. (Reddy et al., 2012)

In a study the presence of malocclusion in Punjabi children of mixed dentition was found to be 19.6 to 37.52%. With such high rates of malocclusion it becomes very important for the state government to provide the services in the public hospitals in Punjab. (Sandhu, Bansal & Sandhu,2012) With the evidence available the orthodontic procedures become very important to be carried out in the public hospitals in Jalandhar.

But this procedure which is carried out in the growing stages of children is not done in the public hospitals in District of Jalandhar. Those staying in the villages with no specialists and high cost of treatment afford the orthodontic treatment. The services in the government Dental college with all the specialists present are available to the patients at a very low cost which is lacking in Jalandhar. Orthodontic treatment is not given importance due to more focus on Dental caries and periodontal diseases which are related with pain. (Muqtadir et al.,2015)

Dentistry has been a part of the services which are required for the aesthetic and it happens through orthodontic treatment or restorations. The adolescents undergo physical and mental changes in the body and are concerned for their facial appearance. They might think of an imperfect smile as a matter of disrespect from

others. Orthodontic treatment is seen as a saviour to correct mal aligned teeth in growing years. (Mafla et al.,2011)

Malocclusion has a negative impact on the quality of life in the people suffering from it. The psychosocial impact of the mal aligned teeth is related to Dentalaesthetic where the compromise on the position (Kang & Kang, 2013). But the orthodontic specialists are not ready to work in the public sector due to their highly paid private practise and the lack of funds in the government treasury in Punjab to provide material required for this specialist treatment.

Having enumerated the kind of Dental education where the specialists want to work in the private sector because of the money involved in private sector, the services which are absent in the regular OPD (of Prosthodontics and Orthodontics) are highly paid for in the private sector. The education system in the Dental colleges does not prepare the future dentist for their services in the public sector. The hefty fees to be paid to enrol in the private Dental colleges for postgraduate courses makes the dentists more inclined to work for private sector. The importance of providing an environment where the budding dentists are inclined to work for the vulnerable section of the society needs to be stressed in the Dental training being offered in the colleges.

5.9. Recommendations from the study

The review on oral health did highlight the fact that the unlike other diseases where the social determinants are addressed and brought to the notice of policy makers it is completely neglected in oral health care. The need to revisit what has been said and planned by government for oral health is a must for improving the status of oral health.

The policy makers are virtually driven by politics in health care rather than the ground realities of the problem. The lack of commitment to address the problem puts oral health on a back stage. There is uncertainty in whether the dentists form a part of the committees involved in making policies and plans for oral health. The involvement of Dental fraternity in policy making is questionable in designing the policy and making decisions during various five year plans. The government and the Dental fraternity itself should make an effort to frame inclusive policies which provide oral health care in a holistic manner.

The various loopholes in delivering the oral health services can be partly contributed to non implementation of oral health policy. Though drafted years ago it has not been put into practise. The gaps in the policy have not been amended since long and the already burdened public health system cannot assimilate oral health as it does other departments. The government needs to revisit and tailor the policy as per the present scenario of oral health.

The government should make effort to include some non formal training for the rural population who have spare time for oral health education so that they can spread the message easily among their community. Moreover a network should be created amongst different villages for catering to this problem. The training module for the outreach workers should include discussions on oral health and how to identify the Dental diseases. Incentives should be provided to them as it is being done in other disease control schemes.

The government has failed to provide a separate allocation for the oral health budget for betterment of the oral health of the community. It is always a compromise for the oral health services when the funds are allocated for the functioning of the public hospitals. Though steps are being taken by the government to run programs which address oral health issues such as School Health and Cancer programs but given the burden of oral diseases they do not suffice the needs of population. The public health system is already crunching under the burden of less finances and oral health care has to pay a heavy price for it. With the available resources oral health provisioning can be improved if the government is motivated to address oral health as a serious issue.

Oral health has been seen as curative and preventive and promotive efforts are largely missing. The government should provide incentives for the students joining the department of Community Dentistry in Dental colleges. Moreover the Dental research should focus more on the preventive approaches to oral health and the researchers should make efforts to provide the government with innovative ideas for preventive approach to oral diseases. The review of literature provides very little information regarding the behavioural aspects which prevent patients from seeking oral care. The myths regarding Dental diseases and fear associated with treatment came out during the interview with the patients. These areas need to be explored more to understand the increase in the prevalence of oral diseases in the community.

For conceptualisation of the problem data is required and there is no formal and uniform data available for the oral health care needs of population. No oral health surveys are conducted in a comprehensive manner and the failure to generate adequate data does give an impression of all is well to those involved in planning. Efforts should be made to generate data and conduct oral health surveys and tailor the provisioning of services in accordance with the regional differences.

There is booming private sector for provisioning of oral health services and the public sector lacks workforce for the same at the peripheral levels. The government should make efforts to provide cover to the vulnerable population for the oral health in form of health insurance and empanel some dentists in private sector for treatment of these patients.

There is lack or complete absence of oral hygiene products in the public sector. Moreover efforts have not been made to view oral health from perspective of other systems of medicines as Ayurveda. Efforts should be made to provide oral health products in the government health settings and view it in a more holistic manner.

The media although provides information on oral cancer, it fails to address the ground issues of oral health education. The government does not involve the media and other systems of reaching out to public to educate them. The use of role models for approaching the general public for taking care of their oral health can create a positive impact and reduce the incidence of Dental diseases.

With the advancement in the technology and public sector still relying on providing basic procedures for oral health, oral health services suffer in public sector. The technology reaches least to those who need it the most. Vigorous efforts are required by the government to improve the status of oral health by improving the technology as well as the man power needed to handle it.

The number of students enrolling for Dental course in private sector has increased so have the Dental colleges. These colleges have increased their postgraduate seats also but the inflow f patients have not increased. As a result the dentists do not get adequate practical training and the emphasis is on theory and the holistic approach in the theory is missing. The Dental college syllabus completely lacks the social factors

affecting oral health. The Dental Council of India should revisit and revise the syllabus for Dental graduates.

The government apart from conducting Dental camps does not conduct oral health days in the CHCs. The administration is of the view that efforts should be made to improve the visibility and status of oral health in public domain.

Conclusion

The lack of a driving force to think of Dental diseases as serious health problems is missing because they are rarely life threatening. Workforce and economics play an important role in the way the oral health services are provided and how the patients seek them. The treatments which demand more economic investment are not available in regular OPD in the public health settings. The recruitment process in the government sector needs to be more tailored and specific to address the concerns of oral health. There is a need to work on the behaviour and perception of the patients on oral health. Given all the shortcomings which have been documented the patients need to be counselled and reminded about the importance of oral health and how it affects the functioning of the body. With increased manpower the dentists can offer difficult procedures even in the public sector and increase the OPD of the Dental wing further leading to more procedures in the same time frame. The generation of vacancies in the public sector and stricter laws for quackery can help raise the status of oral health .The indirect costs of procuring oral health services needs to be recognized to make the authorities realise the gravity of the situation. What is required is motivation on the part of the government to address the issue of oral health in an enthusiastic manner. The oral health initiatives should involve community in the same way it involves the care providers and policy makers. There is a need to highlight the role of caregivers on whom young and old are dependants for their oral health care. The oral health education needs to be revolutionised to solve the problem in a more comprehensive manner.

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ANNEXURE I

IPHS District Hospital 2012: Guidelines

What is the Daily OPD of the hospital?

What is the Daily dental OPD of the hospital?

Grade of the District hospital

Grade I
Grade II
Grade III
Grade IV
Grade V

I.a. Manpower in District Hospital

Manpower	Sanctioned	Present	Reasons for the gap if any
Number of dentists in the hospital			
Number of dental technicians in the hospital			
Number of pharmacists			
Number of store keepers			

I.b. Checklist for Dental procedures in District hospital as in IPHS 2012

Dental services	**Available**	**Non available**	**Reasons for the gap if any**
1 Dental Caries/DentalAbscess/ Gingivitis			
2 Periodontitis a) Cleaning b) Surgery			
3 Minor Surgeries, Impaction, Flap			
4 Malocclusion			
5 Prosthodontia (Prosthetic Treatment)			
6 Trauma including Vehicular Accidents			
7 Maxillo Facial Surgeries			
8 Neoplasms			
9 Sub Mucus Fibrosis (SMF)			
10 Scaling and Polishing			
11 Root Canal Treatment			
12 Extractions			
13 Light Cure			
14 Amalgum Filling (Silver)			
15 Sub Luxation and Arthritis of Temporomandibular Joints			
16 Pre Cancerous Lesions and Leukoplakias			
17 Intra oral X-ray			
18 Fracture wiring			
19 Apiscectomy			
20 Gingivectomy			
21 Removal of Cyst			
22 Complicated Extractions (including suturing of gums)			

I.c. Checklist for Dental Unit in District Hospital as in IPHS 2012

Dental Unit	**Available**	**Non available**	**Reasons for the gap if any**
Dental Chair motorized with panel and foot controlled with up and down movement. Air Rotor			
Compressor oil free medical grade (noise-free)			
Ultrasonic Scalar with four tips.			
Suction fitted in the dental chair medium and high vacuum.			
Air rotor hand piece contra angle two and one straight hand piece (4 lakhs RPM).			
LED light cure unit.			
Latest foot operated light of 20,000 and 25,000/- Lux.			
Air motor terminal with hand piece.			
Dental X-ray IOP/OPG X-ray viewer with LED light			
Doctors' Stool.			
Medical Emergency tray.			

I.d. Checklist for Dental instruments in District hospital

Instruments	Available	Non available	Reasons for gap if any
1. All types of dental extraction forceps (each set3 sets- minimum required which includes upper and lower molars and anterior forceps.)			
Elevators (Dental) all types (3 sets each).			
Apexo			
Bonefile			
Bone cutter forceps one.			
Chisel and hammer-one each.			
Periosteal elevator-3 Nos.			
Needle holder- three.			
2. 20 PMT sets (mouth mirror, probe dental and tweezer).			
Excavators.			
Filling instruments.			
Micromotor with straight and contra angle hand piece			
3. Minor Surgical Instruments.			
4. Perio Surgical Instrument-One Complete Set.			
5. Endodontic Instruments.			
6. Hands Scaler Set			
7. Pulp Tester.			
8. Trays For Complete/Partial Edentulous patients for making of complete/partial dentures of Different Sizes.			
9. Sterilizer Autoclave small front loading-one Boiler (sterilizer) - One Dressing drum			
10. Executive Chair Revolving			
11. Chair metal for office use			
12. Office table			
13. Recovery room with one bed and oxygen cylinder with trolley and gas.			
14. Trolley and wheel chair for patients			
15. Wall clock			
16. Dental I.O.P. X-ray machine with X-ray developing facilities.			
17. Chairs for waiting patients-20			

ANNEXURE II

IPHS 2012 Community Health Centre: Guidelines

What is the Daily OPD of CHC?

What is the Daily dental OPD of CHC?

II.a. Manpower in CHC

Manpower	**Available**	**Non Available**	**Reasons for gap if any**
Number of dentists in the facility			
Number of dental technician in the facility			
Number of pharmacists			

II.b. Checklist for Dental procedure in CHC

Procedures to be carried out	**Available**	**Non Available**	**Reasons for gap if any**
1. Permanent fillings a) GIC			
b) Amalgam			
c) Composite			
2. Complete dentures			
3. Extractions a) Normal b) Surgical			
4. Scaling			
5. Orthodontic treatment			
6 .Root canal treatment			
7. IOPA X ray			

II.c. Checklist for Dental Unit in CHC

Dental Unit			
Dental Chair			
Air rotor			
Compressor			
Suction			
LED			

II.d. Checklist for Dental Instruments in CHC

Dental instruments			
Equipment for extraction			
Filling instruments			
Periodontal instruments			
Endodontic instruments			
Surgical instruments			

ANNEXURE III

Interview schedule for dentists

Name

Age

Sex

Qualification

BDS
MDS

How long have you been working in this facility?

Are you a permanent staff or on contract?

Which facilities refer the patients to your hospital?

At which stage does the patient seek treatment for dental problems?

Does the hospital have the facility of part time specialist visiting?

a) If yes, which all specialists are involved?

b) If no, where are the patients referred to if they need a special help?

Do you get any patients of oral cancer? If yes where are they referred to?

Which medicines do you usually prescribe for dental disease? Please specify

Do you explain the relation of oral health to general health to your patients?

What amount of fund is provided to the dental wing every year?

Have you collaborated with the private players for service provision?

Do you participate in the school health program? If yes ,

- Which is the most commonly found oral problem in school children?
- Do teachers educate students regarding significance of oral health?
- What is the participation of teachers in oral health education?
- Do you provide any IEC material to the students in the schools?
- Do you conduct any dental camps in the community?
    - If yes, how frequently are they conducted?

Do you interact with the outreach staff and provide them with necessary training regarding oral health care and recognition of the diseases?

Is there any material in your institution for education on oral health?

- If yes, please specify the details of the same.

Do you hold any awareness drive in the institution like celebrating dental week or reaching out to people in the community?

What do you have to say for increased private provision of oral health?

Are there any separate allocations for the medicines needed for any dental disease?

What do you think is the patient's attitude towards oral health?

What according to you are the facilities lacking in the dental set up?

Do you face any problems at administrative level in running your clinic?

How does the lack of dental auxiliary, if any, affect your efficiency?

Who do you think is responsible for the present state of oral health?

Would you like to work in the same institution in near future?

Where do you place oral health within the working of public health institutions?

What is the difference between private and public set ups in provision of oral health?

ANNEXURE IV

Patient's interview schedule

Name

Age

Sex

What is your chief complaint that brought you here?

Routine check up

Pain

Bleeding from gums

Loss of teeth

Malocclusion

Bad breath

Mobile teeth

Caries

Which is the first point of contact you have when you experience dental problems?

Dentist

Pharmacist

Alternative medical practitioner

Quack

General practitioner

What is the time gap between your problem and consultation with the dentist?

1 day

1-7 days

7-15 days

More than 15 days

Is this your first visit since the complaint you have?

Yes

No

How do you find the behaviour of the doctor and the staff?

Cooperative

Non cooperative

What made you access this government facility?

Convenient distance

Less expensive

Qualified doctors

Past experience

Family member’s advice

What difficulties did you face in accessing oral care?

Long waiting time

Economic crisis

Lack of knowledge

Uncooperative behaviour of staff

Have you ever received any counselling by the staff for the prevention of the disease?

Yes

No

Do you have any medical problem?

Yes (specify)

No

What all methods you use to take care of your teeth?

Toothbrush

Datun

Mouthwash

Flossing

Routine check ups

Rinsing after every meal

Has any dental camp been organised in your residential area?

If yes who were the organisers of the camp?

Do you know the affect of oral health on general body health?

Have you ever visited any private practitioner for oral health?

If yes, what differences do you find between public and private institutions?

What is your observation in regard to the provision of oral health care in this institution?

ANNEXURE V

Interview schedule for Senior Medical Officer

How long have you been involved in the working of the institution?

What do you have to say about the public health institutions in Punjab?

What is the disease profile of the areas to which this CHC caters to?

What is the total budget of the hospital and how is it distributed for oral health care?

How frequently are oral health care camps organised and which areas are covered?

What is your view regarding the neglect of oral health, if any, in public health institutions?

What do you have to say about the contracting out of the services in public sector if any with regard to oral health?

Do you run the school health programme under your CHC?

If yes, what are the services provided to the school children under the same program?

What is the frequency of visit of dental team to schools if any under the same program?

How many schools are covered under school health program under your CHC?

Is there any IEC material available for oral healthcare which is distributed in schools?

What are the problems faced in the provision of oral health care in schools?

Why are fewer vacancies created for dentists as compared to medical officers in the public sector?

In institutions where there are no dentists who is responsible for provision of oral health services?

What do you have to say about the dental infrastructure present in your institution?

What according to you can be done to improve the state of oral healthcare in public health institutions?

ANNEXURE VI

Interview schedule for Chief Pharmacist

How long have you been working in this institution?

Are you a permanent staff or on contract?

Which are the drugs most commonly used in the institutions?

What are commonly used drugs for dental problems?

Are they available in the stock? If no, where do you refer the patients if you don't have the drugs prescribed by the dentist?

How frequently the medical representatives providing oral healthcare visit the institution?

Do you have some Ayurvedic preparations for treatment of dental disease?

Do you have separate medicines for child patients getting treated in dental department?

Do you face any administrative problems in carrying out your duty?

What do you have to say regarding the state of oral healthcare with respect to availability and non availability of drugs?

What are the factors responsible for the present state of oral health care in public health institutions?

ANNEXURE VII

Interview Schedule for Store keeper

How long have you been working in this department?

After how long are the stocks renewed and new materials ordered?

Are there tenders issued for purchase of dental equipments?

Who are the parties who deliver the materials required for oral health provisioning?

Is there any difference of opinion regarding the material to be ordered at the administrative level and at the level of the dental department?

Which is the most frequently ordered dental material?

Do you experience any waste with regard to the dental material stocked with you?

What proportion of the money as compared to the whole, is spent on the dental material?

Do you see any change in the type of material quoted for dental requirement previously and at present? If yes please specify the change.

ANNEXURE VIII

Photographs from field

Rate list in the CHCs

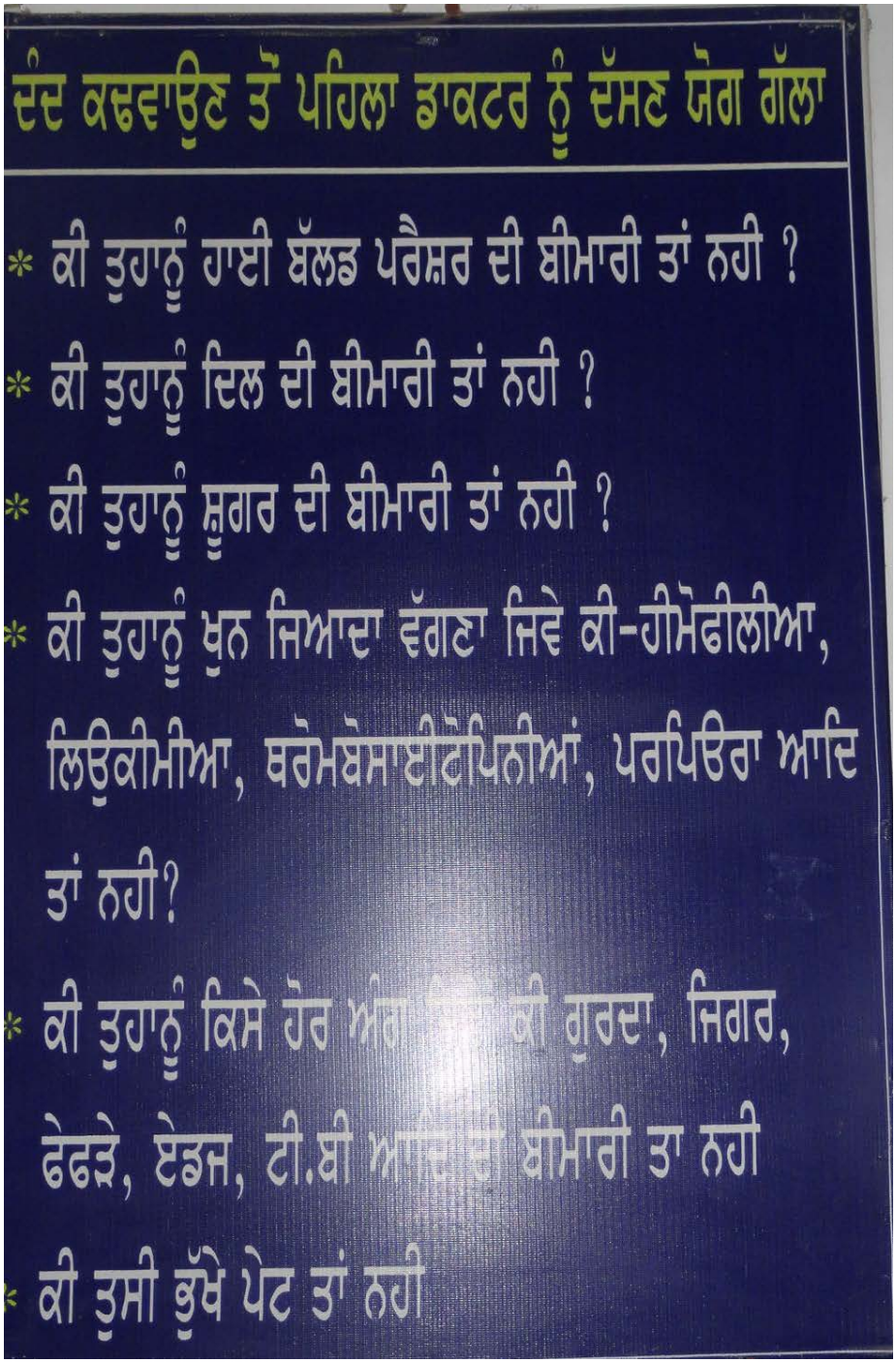
CHC Kalabakra

Glass bead steriliser

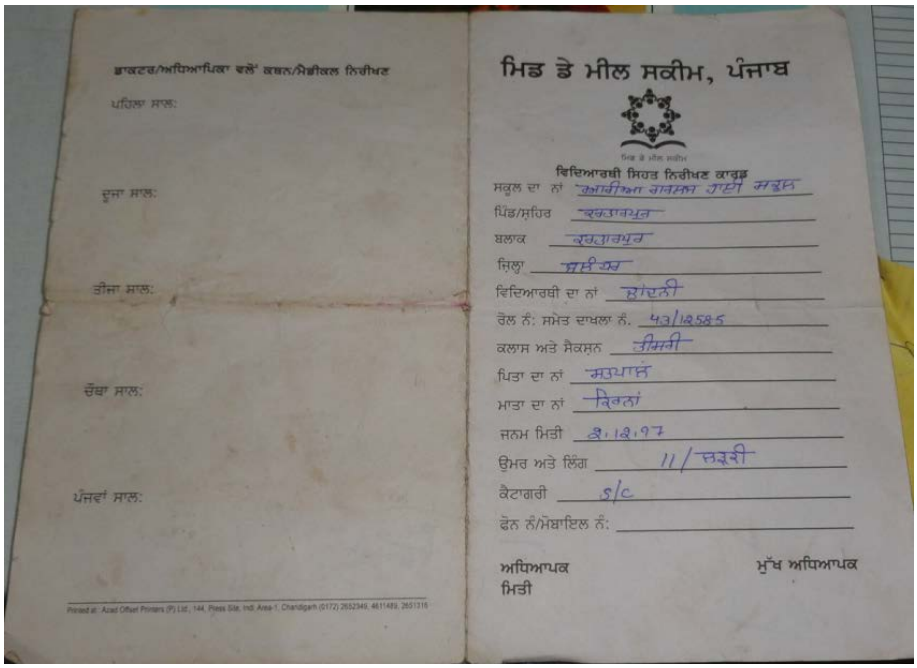
Waste Management in Dental Clinic

PAP Dental Clinic

Posters in the operatory showing how to take care of teeth



Poster showing the instructions before getting the tooth extracted



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ਦੂਜਾ ਸਾਲ:

ਤੀਜਾ ਸਾਲ:

ਚੌਥਾ ਸਾਲ:

ਪੰਜਵਾਂ ਸਾਲ:

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ਵਿਦਿਆਰਥੀ ਸਿਹਤ ਨਿਰੀਖਣ ਕਾਰਡ

ਸਕੂਲ ਦਾ ਨਾਂ ਆਰੀਅਨ ਗਰਲਜ਼ ਹਾਈ ਸਕੂਲ

ਪਿੰਡ/ਸ਼ਹਿਰ ਫਕਤਾਵਰ

ਬਲਾਕ ਫਤਹਗੜ੍ਹ

ਜ਼ਿਲ੍ਹਾ ਸੰਗਰੂਰ

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ਪਿਤਾ ਦਾ ਨਾਂ ਸਤਪਾਲ

ਮਾਤਾ ਦਾ ਨਾਂ ਕਿਰਨਾਂ

ਜਨਮ ਮਿਤੀ 3.12.97

ਉਮਰ ਅਤੇ ਲਿੰਗ 11/ਚਰਦੀ

ਕੈਟਾਗਰੀ S/C

ਫੋਨ ਨੰ/ਮੋਬਾਇਲ ਨੰ:

ਅਧਿਆਪਕ
ਮਿਤੀ

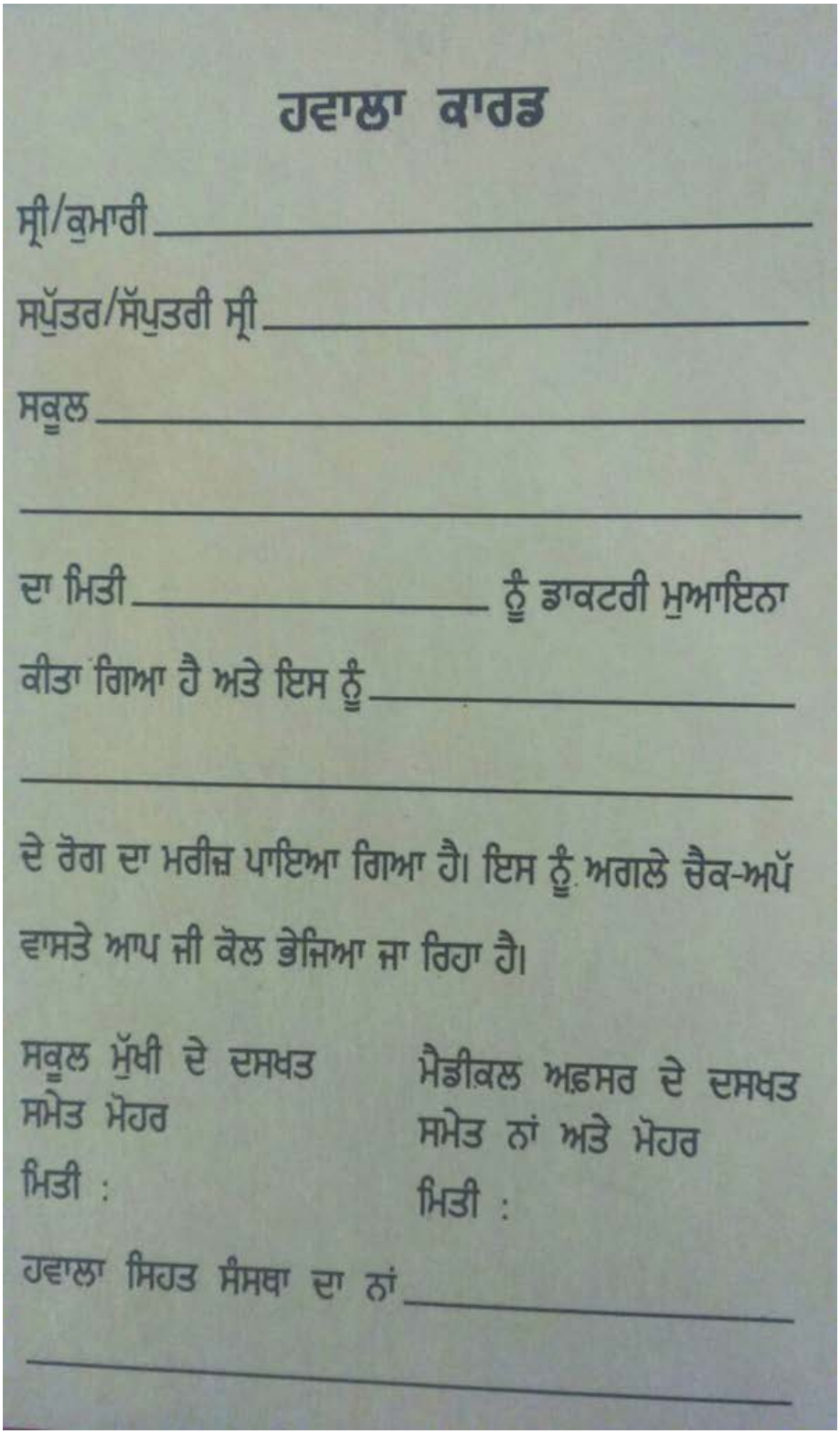
ਮੁੱਖ ਅਧਿਆਪਕ

ਸਾਲ	2008	2009	2010	2011	2012
ਕਲਾਸ					
ਨਿਰੀਖਣ ਦੀ ਮਿਤੀ					

ਡਾਕਟਰੀ ਨਿਰੀਖਣ

ਕੱਦ					
ਭਾਰ					
ਛਾਤੀ ਦਾ ਮਾਪ					
ਐਚ.ਬੀ.ਲੈਵਲ					
ਡੀ-ਵਰਮਿੰਗ ਦੀ ਮਿਤੀ					
ਨਜ਼ਰ R					
L					
ਸੁਨਣ ਦੀ ਸਮਰੱਥਾ					
ਜੋਂਡਿਸ					
H/o ਪੁਰਾਣੀ ਬੀਮਾਰੀ					
ਰੈਫਰਡ					
ਟੀਕਾਕਰਣ-	ਡੀ.ਟੀ. (5 ਸਾਲ)		ਟੀ.ਟੀ. (10 ਸਾਲ)		ਟੀ.ਟੀ. (16 ਸਾਲ)
ਦੰਦਾਂ ਵਿੱਚ ਖੋਤ ✓		—			
ਡਾਕਟਰ ਦਾ ਨਾਂ					
ਡਾਕਟਰ ਦੇ ਹਸਤਾਖਰ					

Old Referral Card under School Health



ਹਵਾਲਾ ਕਾਰਡ

ਸ੍ਰੀ/ਕੁਮਾਰੀ _____

ਸਪੁੱਤਰ/ਸੱਪੁਤਰੀ ਸ੍ਰੀ _____

ਸਕੂਲ _____

_____

ਦਾ ਮਿਤੀ _____ ਨੂੰ ਡਾਕਟਰੀ ਮੁਆਇਨਾ

ਕੀਤਾ ਗਿਆ ਹੈ ਅਤੇ ਇਸ ਨੂੰ _____

_____

ਦੇ ਰੋਗ ਦਾ ਮਰੀਜ਼ ਪਾਇਆ ਗਿਆ ਹੈ। ਇਸ ਨੂੰ ਅਗਲੇ ਚੈਕ-ਅੱਪ

ਵਾਸਤੇ ਆਪ ਜੀ ਕੋਲ ਭੇਜਿਆ ਜਾ ਰਿਹਾ ਹੈ।

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ਸਮੇਤ ਮੋਹਰ
ਮਿਤੀ :

ਮੈਡੀਕਲ ਅਫ਼ਸਰ ਦੇ ਦਸਖਤ
ਸਮੇਤ ਨਾਂ ਅਤੇ ਮੋਹਰ
ਮਿਤੀ :

ਹਵਾਲਾ ਸਿਹਤ ਸੰਸਥਾ ਦਾ ਨਾਂ _____

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New Referral Card under School Health

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CHC Kartarpur