CHAPTER V

SUMMARY AND CONCLUSIONS
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The present work on the Bio-Anthropological study among the Commercial Sex Workers of Belgaum District, Karnataka is the outcome of the research conducted to know the Nutritional Status, Blood Pressure, Serological Variations, Oral Health Status and Knowledge on STI/HIV and AIDS among them. A comparative study has been done between FSW and MSM of Belgaum District.

The present research was carried out during 2005-2009. Different types of data regarding Nutritional Status, Blood Pressure, Serological Variations, Oral Health Status and Knowledge on STI/HIV and AIDS were collected from the Commercial Sex Workers living in Belgaum District, viz, Athani, Bailhongal, Belgaum, Chikodi, Gokak, Hukkeri, Khanapur, Raibag, Ramadurg and Soundatti taluks. Random sampling method was adopted for data collection, observation and in-depth interview methods were also used.

Standard techniques and procedures were followed in the collection and analysing of the data. The results of our study have been compared with FSW and MSM of different caste individuals of Belgaum District. The results of the present study have been summarised as follows
NUTRITIONAL STATUS

Results drawn from nutritional status have been presented in tables from 8 to 14. Distribution of BMI among FSW and MSM of Belgaum District has been presented in tables. The mean of BMI variable among FSW and MSM is 21.26±3.85 and 19.08±3.05 in Belgaum District. Among the ten taluk, Athani taluks FSW mean is 22.84±4.07 and MSM indicates 20.57±3.53 in Chikodi Taluka. Regarding nutritional status in Khanapur taluk FSW is mild under nutrition and rests are under normal nutritional status. In case of Chikodi taluk MSM present normal nutritional status and rests are mild under nutritional status.

The age and mean composition of FSW shows the high proportion 22.34 ± 4.08 at the age group of 15-24 and the MSM is 20.02 ± 3.56, at the age group of 35-44. At the age group of 35-44 FSW come mild under nutritional status and MSM come under normal nutritional status and 15-24 and 25-34 age groups of FSW are under normal nutritional status and MSM are mild under nutritional status.

The food habit among Commercial Sex Worker group mean values reveal that the FSW are more in vegetarian group 21.35 ± 3.73. In case of MSM is higher 19.38 ± 2.98 in vegetarian food habit. In the nutritional status FSW come under normal nutritional status and MSM are mild under nutritional status.
Table 11 to 15 present distribution of general appearance. Normal built is $23.41 \pm 3.48$ in FSW and MSM is $19.98 \pm 2.73$. In case of normal built FSW come under normal nutritional status, sickly and thin built are mild under nutritional status and MSM are comes mild under nutritional status. Among FSW the appearance of normal hair is $23.19 \pm 4.49$, $22.70 \pm 0.36$ in MSM. In the group of normal, dull and dry and easily pluckability come under normal nutritional status and rests are mild under nutritional status of FSW. And the MSM group of normal hair and easily pluckability come under normal nutritional status and rests are mild under nutritional status. The normal Lip appearance is found more in $21.56 \pm 4.22$ FSW and MSM is $19.64 \pm 3.36$. Normal lips and angular stomatitis group of FSW present normal nutritional status and rests are mild under nutritional status. And MSM are mild under nutritional status. In normal skin appearance are more $22.59 \pm 3.73$ in FSW and MSM is $19.16 \pm 3.12$ in dry and scaly skin appearance. Normal and dry and scaly skin appearance of FSW come under normal nutritional status and rest are mild under nutritional status and in case of MSM it is mild under nutritional status.

**BLOOD PRESSURE**

The Commercial Sex Workers groups of FSW and MSM are shown the following parameter of Blood Pleasure (BP). In the DBP
and SBP of FSW the mean number is 120.37 ± 27.66 and 160.37 ± 27.66 in Bailahongal and MSM is 103.81 ± 28.88 and 143.81± 28.88 in Gokak taluk.

Age groups and DBP and SBP variables among FSW the mean is 114.17 ± 26.10 and 154.17 ± 26.10 and the MSM are mean is 108.76 ± 23.35 and 150.62 ± 23.31 at the age group of 35-44.

Regarding the food habits and DBP and SBP of FSW mean is 114.76 ± 27.25 and 154.56 ± 27.57 mixed food habit and the MSM mean is 100.49 ± 22.74 and 141.25 ± 23.24 in vegetarian food habit.

Consuming alcohol and DBP and SBP among FSW are 112.06 ± 29.97 and 151.91 ± 30.17 never consuming alcohol and MSM are (100.08 ± 23.38 and 141.19 ± 24.09) occasionally consuming alcohol.

Smoking habit and DBP and SBP of FSW mean are (115.16 ± 24.48 and 155.16 ± 24.48) and the MSM are 99.05 ± 17.57 and 141.58 ± 19.09 of occasional smoking group.

The mean number of chewing tobacco and blood pressure among FSW are 109.81 ± 27.16 and 149.81 ± 27.16 and the MSM are 98.95 ± 23.05 and 140.68 ± 23.75 of regular chewing tobacco.

Regarding drinking tea and blood pressure among FSW mean are 118.00 ± 34.93 and 158.00 ± 34.93 in never drinking tea group and MSM mean are 107.41 ± 25.05 and 148.89 ± 25.17 in
occasional drinking coffee of FSW mean are 108.38 ± 28.15 and 148.29 ± 28.25 in occasional group and MSM mean are 106.67 ± 20.60 and 146.67 ± 20.60 in regular group of DBP and SBP.

In the injected illicit drugs, FSW mean are 113.95 ± 24.44 and 153.95 ± 24.44 and the MSM mean are 98.22 ± 20.95 and 139.49 ± 21.70 in injecting illicit drug users group of DBP and SBP.

**SEROLOGICAL VARIATION**

This has been attempted on the basis of the analysis of ABO and Rh (D) blood groups among the Commercial Sex Workers groups of FSW and MSM. The frequency of 'A' blood group is found to be the highest in both the groups of FSW and MSM. Next to this comes the frequency of 'O' blood group, followed by 'AB' and 'B' groups. Frequencies of O, A, B, and 'AB' phenotypes for FSW are 25.72, 32.86, 18.28 and 23.14, respectively. The frequency of 'A' blood group is found to be the highest in the both groups of MSM. Next to this comes the frequency of 'O' blood group, followed by 'B' and 'AB' groups. Frequencies of O, A, B, and 'AB' phenotypes for FSW are 32.58, 38.28, 19.42 and 09.42, respectively.

It has been observed by Mourant (1976) that the people of South India belonging to Dravidian Linguistic families are characterised by high frequency of 'A' gene as compared to the people of north India, who have 'B' gene in high frequency. Among FSW and MSM the incidence of 'A' gene is in high frequency. Therefore, our
results are similar with Mourant's observations of South Indian population. In case of Rh (D) blood group system Rh -ve is found to be low (FSW 11.71% and MSM 09.71%) as in many Indian castes as well as in tribal populations. The gene frequency of 'D' and 'd' genes among FSW are 0.5971 and 0.4029 and the MSM are 0.6686 and 0.3314 respectively.

**ORAL HEALTH STATUS**

The oral health and hygiene status observations and their results have been presented in tables from 29 to 42. Among Commercial Sex Workers FSW are in good hygiene status 41.30% at the age group of 15-24, 25-34 age group is in fair 58.19% and the age group of 35-44 is 59.72% in poor oral hygiene status. In the MSM 63.01% at the age group of 15-24 are in good oral hygiene status, 25-34 shows 70.27% to be in fair group and the poor group is 62.02% at age group of 35-44.

In the Dental Caries and Periodontal Status among Commercial Sex Workers group, FSW are found to be 66.07% and 71.07% in present and absent status of Dental Caries at the age groups of 35-44 and 15-24 and in Periodontal Status, 43.05% and 69.04% are in the age group of 15-24 and 35-44 in present and absent Periodontal Status. Regarding the MSM 52.07% and 100.00% are in the age group of 35-44 and 15-24 in present and absent group
in Dental Caries and the Periodontal Status. It is 37.00% and 75.02% in present and absent the age group of 15-24 and 35-44.

Among Commercial Sex Workers FSW are in fair hygiene status 53.85% in non-vegetarian group, mixed food habit shows 39.81% in poor group and the good oral hygiene status is 19.23% non-vegetarian food habit. In the MSM 53.80% in vegetarian food habit of fair oral hygiene status, mixed food habit shows the 32.05% in poor group and the good oral hygiene is 26.92% in mixed food habit respectively.

Distribution of food habit among FSW are 46.02% and 58.04% in present and absent status of Dental Caries in non-vegetarian and vegetarian food habits respectively and in Periodontal Status 43.03% and 69.02% are in non-vegetarian and vegetarian food habit and regarding the MSM 34.06% and 70.01% are in present and absent group of mixed and vegetarian food habit of Dental Caries and the Periodontal Status is 42.03% and 66.03% in present and absent in mixed and vegetarian food habit.

In the consuming alcohol among FSW are 54.41% in fair hygiene status of never consuming alcohol, 40.51% in regular consuming alcohol group of poor hygiene status and occasional consuming alcohol is 17.04% in good oral hygiene status. In the MSM (58.18%) are in regular consuming alcohol of fair hygiene,
occasional consuming alcohol is 37.30% in poor oral hygiene status and never consuming alcohol is 26.32% in good oral hygiene status.

Distribution of consume alcohol and oral hygiene status among FSW are 45.06% and 63.03% in present and absent status of Dental Caries in never and occasional consuming alcohol and in Periodontal Status 41.08% and 68.04% are regular and never consuming alcohol and regarding the MSM 39.07% and 78.09% are in present and absent group of occasional and never consuming alcohol in Dental Caries and the Periodontal Status is 40.00% and 68.03% in present and absent group of regular and occasional consuming alcohol habit.

Frequency distribution of smoking and oral hygiene status among FSW, 60.00% is in regular smoking group of fair hygiene, 36.18% in never smoking group of poor hygiene status and never smoking habit is 14.47% in good oral hygiene status. In the MSM, (62.75%) in regular smoking habit of fair hygiene, never smoking habit is 36.18% in poor oral hygiene status and of occasional smoking habit is 27.37% in good oral hygiene status respectively.

Frequency distribution of smoking and oral health status among FSW 60.00% and 58.09% are in present and absent status of Dental Caries in regular and never smoking group and in Periodontal Status 33.06% and 73.03% are in never and regular smoking habit and regarding the MSM 42.02% and 72.01% are in
present and absent group of regular and never smoking habit in Dental Caries and the Periodontal Status is 38.01% similar in occasional and regular smoking habit and 62.07% is in regular smoking group of present and absent.

Frequency distribution of chewing tobacco and oral hygiene status among FSW and MSM 53.24% and 61.34% is in never chewing tobacco group of fair hygiene status, respectively. 51.85% and 33.57% in regular chewing tobacco group of poor hygiene status respectively and occasional chewing tobacco habit is 17.20% and 31.88% in good oral hygiene status respectively.

Frequency distribution of chewing tobacco and oral health status among FSW 55.06% and 63.01% are in present and absent status of Dental Caries in regular and occasional chewing tobacco and in Periodontal Status 38.02% and 72.02% are occasional and regular chewing tobacco and regarding the MSM 35.08% and 63.01% are in present and absent group of regular and never chewing tobacco in Dental Caries and the Periodontal Status is 42.00% and 67.02% in occasional and never chewing tobacco.

Distribution of drinking tea and oral hygiene status among FSW in never and occasional drink tea group it is similar 60.00%, 40.00% in never drinking tea group of good hygiene status and regular drinking tea habit 36.62% in poor oral hygiene status. In the MSM 61.90% are in never drinking tea of fair hygiene, never
drinking tea habit is 38.10% in poor oral hygiene status and occasional drinking tea habit 22.22% in good oral hygiene status.

Distribution of drinking tea and oral health status among FSW 43.07% and 80.00% are in present and absent status of Dental Caries in regular and never drinking tea and in Periodontal Status 60.00% and 75.00% are never and occasional drinking tea and regarding the MSM 42.09% and 69.02% are in present and absent group of never and regular drinking tea in Dental Caries and the Periodontal Status is 39.04% and 92.06% in present and absent in regular and occasional drinking tea.

Among FSW the fair hygiene status is 70.00% in regular drinking coffee, occasional drinking coffee habit in poor hygiene status is 36.89% and the good oral hygiene status (20.00%) is in regular drinking coffee. In the MSM 100.00% in never drinking coffee are in fair oral hygiene status, occasional drinking coffee is 30.03% in poor hygiene status and the good oral hygiene status is 21.43% in regularly drink coffee respectively.

Distribution of drinking coffee and oral health status among FSW 70.00% and 66.07% are in present and absent status of Dental Caries in occasional and never drinking coffee and in Periodontal Status 32.02% and 80.00% are in occasional and regular drinking coffee and regarding the MSM 50.00% and 100.00% are in present and absent group of regular and never drinking coffee in Dental
Caries and the Periodontal Status is 36.03% and 100.00% are in present and absent group of occasional and never drinking coffee.

**KNOWLEDGE ON STI/HIV/AIDS**

The knowledge on STI/HIV/AIDS among Commercial Sex Workers; The maximum number of FSW know about the STI/HIV/AIDS from the NGO Workers (94) and TV (59) the rests are form the Health Workers (35), Radio and Poster (30), Friends (21), Cinema (19), Anganwadi Worker (18), Sexual Partner (17), Exhibition (11), VCTC Counselor (08), News Paper (05) and Leaders (03). And the MSM know about the STI/HIV/AIDS from the Poster (56), TV (52), NGO Workers (36), Cinema (30), News Paper (27), Radio and Sexual Partner (24), Exhibition and Friends (23), Health Worker (17), School Teacher and Leaders (07).

Using condoms among Commercial Sex Worker group; The FSW are using condoms getting from the NGO Workers (149), Medical Shop (104), Sexual Partner (31), Brothel Owners (25), Pan Shop (19), Public Hospital (10), Friends (06), Private Clinic (03), Health Educator (02) and Anganwadi Worker (01). And the MSM are using condoms getting from the Medical Shop (174), Pan Shop (65), Public Hospital (34), Friends and Sexual Partner (19), NGO Workers (13), Health Educator (11), Anganwadi Workers (06), Private Clinic (05) and Brothel Owners (04).
The number of Commercial Sex Workers and entertaining place for their clients. The FSW are entertaining in Home (140), Lodge (91), Public Place (84) and Brothel (35). 236 MSM are entertaining in Public Place, 60 in Lodge and 54 in Home.

The knowledge of STI Symptoms among Commercial Sex Workers; The FSW known about STI Symptoms from the Discharge (131), Burning Urination (112), Ulcers (56), Unaware of symptoms (31) and Swellings (20), in the MSM group from the Burning Urination (123), Ulcers (86), Discharge (66), Swellings (38) and Unaware of symptoms (37).

Distribution of Commercial Sex Workers giving preference to STI treatment; The FSW are taking treatment from the NGO Camp (105), Private Clinic (79), Government Hospital (67), Medical Shop (55) and Home Remedy (44). The MSM are taking treatment from the Medical Shop (99), NGO Camp (89), Private Clinic (63), Home Remedy (60) and Government Hospital (39).

The number of clients volume per week of Commercial Sex Workers; FSW have in the group 11-15 clients 125, 16-20 clients 81, 06-10 clients 75, 20 and above clients 35 and 0-05 client 34. MSM have in the group 16-20 client's 103, 11-15 clients 90, 20 and above 66, 06-10 client 56 and 0-05 client 35.
CONCLUSIONS

In this thesis an attempt has been made to study a few bio-anthropological study among Commercial Sex Workers of Belgaum district in Karnataka. At present socio-economically Commercial Sex Workers are in a least position.

Family disharmony, tradition and social customs that have sanctioned the Devadasi, desertion and other facts like kidnapping, abduction, deception and displacement were among other reasons that were responsible for entry into sex work. Out of collected Samples 33.14% FSW and 24.66% MSM belong to Devadasi Community. It is thus necessary to investigate the educational status of the Commercial Sex Workers. One would generally believe that illiteracy is a major factor contributing to sex work. While it is true that ignorance resulting from illiteracy could push an individual into the sex work, it is also possible that access to information about easy means of achieving quick wealth and pleasures can drive some individual to seek such as Educational status of MSM is better than FSW.

Studies have shown that one of the major factors affecting entry into sex work is the economic condition of the family. Hence an attempt is made here to elicit data relating to the economic background of the subjects' families. It was a rather difficult task to draw precise information about the economic status of their parental families. Economically MSM are moderately in a better position than
FSW. Economic status of Belgaum taluka Commercial Sex Workers is comparatively better than the other Talukas of Belgaum District.

Commercial Sex Workers migrate into different places. 45.42% FSW and 64.00% migrate to different places like different Talukas, Districts and Neighbouring States for their livelihood and to lead life.

Malnutrition has been a major problem among Commercial Sex Workers of Belgaum district in particular. The nutritional status of FSW is better than MSM. Nutrition status among Athani Taluka FSW is a present highest value then the lowest value is presents Raibag Taluk MSM. At the age group of 35-44, BMI variable is presents highest in FSW then the MSM are presents lowest value, at the age group of 15-24, respectively.

There are so many factors, which are responsible for blood pressure variations among Commercial Sex Workers of Belgaum district, namely genetic factor, effect of age, obesity and hardening of artery, weakens of heart mussels, kidney elements and other bad habits like smoking, alcohol intake etc. The Blood pressure seemed to be more in FSW than in MSM.

The Commercial Sex Workers exhibited a higher frequency of 'A' gene than 'B' gene in both groups of FSW and MSM. The frequency of Rh positive gene was higher in Commercial Sex Workers.
Maintaining good oral health is one of the most important things for teeth and gums. Healthy teeth not only enable to look and feel good, they make it possible to eat and speak properly. Good oral health is important to overall well-being. Daily preventive care, including proper brushing and flossing, avoiding use of tobacco, will help stop problems before they develop and are much less painful and expensive. Oral health status is fair to poor in both groups of FSW and MSM.

Sexually Transmitted Infection is describes the infections that spread from person to person through sexual contact. Discharge, Burning Urination, Ulcers, Swellings were common in FSW and MSM. FSW are preferred for taking STI treatment in NGO camps, but MSM preferred for Medical Shops.

REMEDIAL MEASURES

As a research Scholar, I strongly recommend certain policy prescription for the welfare of Commercial Sex Workers which are as follows.

Commercial Sex Workers claim that they are neglected in various social, economic, and political upliftment schemes and needs special attention. Presently the Commercial Sex Workers are trying for strengthening their district level Organization, for preventing harassments from various types of clients and upliftment of their requirements.
While most of the aged Commercial Sex Workers facing number of problems to lead their life. As a researcher with participant observational method, I have noticed that still they are backward in all spheres of life and it is better if Government struggles hard to take all possible steps to bring them into the main stream of Socio-Economic and Political scenario.

The Government and Non-Government Organizations must take up programmes meant to raise the consumption levels of the Commercial Sex Workers. It is necessary to provide the Commercial Sex Workers with reasonable level of goods and services for their well-being. Presently, the consumption levels are very low, probably because the Government and Non-Government Organizations are unable to cope with their requirements because of scarce resources or for want of a well-coordinated and meaningful policy. The depressed economic conditions in the Commercial Sex Workers taken up for studies are an indication that lot of hard work needs to be done to ensure simple but decent levels of consumption. This consists of public distribution of essential commodities and provision of certain public goods under the minimum needs programme such as awareness, education, health, knowledge on STI/HIV/AIDS, drinking water and house sites, slum improvement, etc.

About 50 percent of the Commercial Sex Workers do not possess roots of their own. A majority of the Commercial Sex
Workers live in slum. Therefore, the Government should take necessary steps to improve the housing condition of the Commercial Sex Workers. The Government has a number of schemes to provide houses to the poor. The Commercial Sex Workers have a right to have their own houses but in case they are unable to have houses on their own, the Government should provide cheap but functional houses.