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A Survey To Evaluate Awareness and Practice of Infection Control Among Under Graduate Students and Paramedical Staff in South Coastal Karnataka.

KEYWORDS: infection control ,knowledge, practice

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ABSTRACT *A successful dental treatment depends not only on skills of the dentist and /or the materials used but also the infection control practices followed while incorporating a treatment. Cross infection control has become a prime importance ever since the threat of infections has increased. The chain of infection doesn't limit itself to the dental personnel itself but also spreads to the staff working in a dental practice.*

A survey was conducted in order to analyze the awareness and practice of infection control among Undergraduate students and paramedical staff in South coastal Karnataka.

After collecting the feedback from 250 candidates, it was concluded that 67.5% dental graduates had excellent knowledge about infection control and 64.5% practiced infection control, where as 46% paramedical staff excellent knowledge and only 30% practiced infection control.

Introduction:
Dental practice has progressed greatly over the past few years .The quality of treatment has immensely improved owing to the latest techniques, sophisticated software and most importantly practice of safe Dentistry.

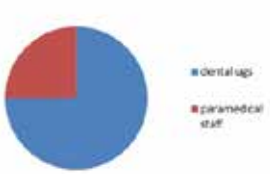
Although the knowledge of cross infection control among the dental practitioners has shown improvement over the years, the Dental health care team still fail to achieve the standards of cross infection control.

The role of all those who are involved with the dental health team, that is the one who is providing the treatment to the one who maintains the clinic inventory, is highly valued in maintaining a safe environment . Various infections can spread through blood ,mucus ,sweat and oral secretions from the patient to the dentist ,dentist to the dental operatory ,dental operatory to the paramedical staff . Cross infection control practices must be followed by all of them in order to limit the spread of infection.

A thorough knowledge about the practice of infection control thus forms a foundation of a successful practice. Hence the need to evaluate the level of knowledge and practice of infection control was established.

Material and methods:
Sample selection:
Two hundred and fifty dental professionals including undergraduate students and paramedical staff were selected(Figure 1).

Figure 1



*250 dental professionals from undergraduate students and paramedical staff were selected(200 undergraduates and 50 paramedical staff)

The sample was divided into two groups . In the first group assessement of the knowledge and awareness of infection control was done and the other group assessement of the practice of infection control was done.

A structured questionnaire was filled by the operator after consultation with the subject.

Methodology:
After obtaining the consent of the professionals to participate in the study, the questionnaire was filled by them. The information regarding their awareness and practice of infection control was recorded. The professionals were encouraged to give frank opinion about his/her views and was assured that the identity would be kept confidential. Once the questionnaire was completed for 200 professionals, they were grouped based on the scale of Excellent , good ,average , poor based on their levels of awareness and practice.

Statistical analysis:
The values were uploaded in Microsoft excel spread sheet and the statistics were analysed using IBM SPSS version 22.

Descriptive data was presented in frequencies and percentages ,association between the levels of study variable groups (ie knowledge and practice) was assessed Fischer exact test with a p value of <0.05.

Results:
Among the total professionals chosen for the study 200/250 were dental under graduates, 50/250 were paramedical staff

Among the 200 dental professionals chosen the following parameters were assessed:-

I) Knowledge(Figure 2)

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Figure 2

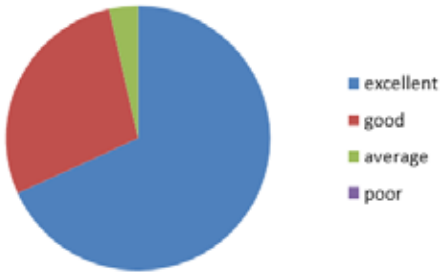


Figure 2: knowledge of the dental undergraduate students

Sixty seven percentage of professionals had excellent (>5 questions were right) knowledge about the infection control protocols. Twenty nine percentage p

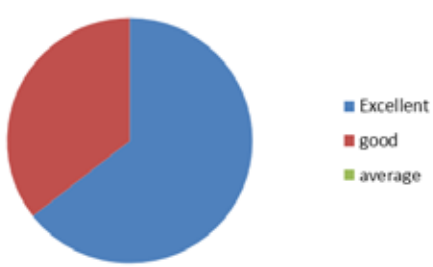
rofessionals had good (>2 but <5 were right) knowledge about the infection control protocols

Three point five percentage professionals had average (2 were right) knowledge about the infection control protocols

No professionals had poor (0 were right) knowledge about their prosthetic needs

II) Practice(Figure 3)

Figure 3



*Practice of infection control among dental undergraduate students

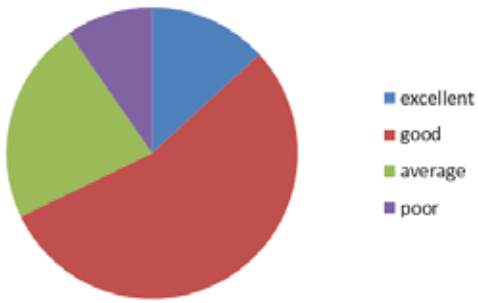
Around 64.5% professionals had excellent (6 questions were right) practice.

Around 35.5% professionals had good (3 questions were right) practice.

Among the 50/250 paramedical staff chosen the following parameters were assessed:-

I) knowledge(Figure 4)

Figure 4



*Knowledge of paramedical staff about infection control.

Forty six percentage of professionals had excellent (>5 questions were right) knowledge about the infection control protocols

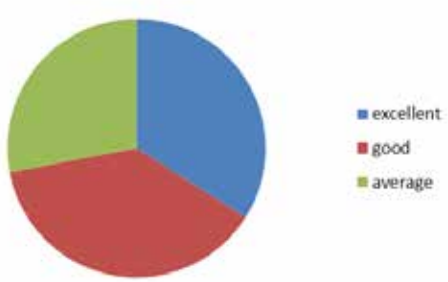
Thirty four percentage professionals had good (>2 but <4 were right) knowledge about the infection control protocols

Fourteen percentage professionals had average (2 were right) knowledge about the infection control protocols

Six percentage of professionals had poor (<2 were right) knowledge about the infection control protocols

Ii) Practice (Figure 5)

Figure 5



*Practice of infection control among paramedical staff

Thirty four percentage of professionals had excellent (6 questions were right) practice.

Thirty eight percentage of professionals had good (3 questions were right) practice.

Twenty eight percentage of professionals had average (<2 question was right) practice.

Results:

After the statistical analysis the following was concluded

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.(table 1and 2)

Fischer exact value was 18.61 with p value <0.001 making the study significant.

Discussion:

The present study analyzed the knowledge, awareness and practice of infection control protocols in a dental facility.

To estimate the need for educating the dental health care professionals about cross infection and infection control ,surveys were conducted.

It has been established from past studies that an increase in the educational level of a population affects the practice of hygiene measures. The educational level and social standard of the study population could be a factor which led to unmet infection control protocols.

In the few questions that were asked on the basis of knowledge of the professionals the results indicated excellent knowledge (around 70%) about the needs of infection control.

The next set of questions were asked based on practice of the professionals. The dental undergraduates practiced infection control protocols more often than the paramedical staff.

Conclusion:

This survey concluded that dental under graduates(67.5%) are more aware of the risks and dangers involved with direct or indirect contact with patients and proper disposal of the wastes.

Majority of the dental undergraduates (64.5%) practiced infection control protocols

Paramedical staff had good knowledge(46%) about the cross infection protocol and waste management as well, although the practice was limited.(28%)

From the above survey it can be seen that majority of the health care professionals are quite aware about the various infection control. Although ,recent advancements of sterilization and disinfection must be incorporated in various systems. They should be educated by other means like magazines/papers and internet. Since there is a deficiency in continuing dental education on how to avoid crossinfection,strict measures must be employed.

in dental practice, Improved compliance with recommended infection control measures is required for all dentists and dental health care professionals. Continuing education programs and short-time coursesabout cross-infection and infection control procedures are suitable to improve the knowledge of dentists. Hence proper advice from the dental staff can improve the practice of infection control protocols among the paramedical professionals as well

Tables:

Table 1:-

Group	Knowledge				Total
	Excellent	Good	Average	Poor	
Undergraduate	135	58	7	0	200
Paramedical	23	17	7	3	50
Total	158	75	14	3	250
	Fisher's exact value = 18.61, p<0.001*				

*P<0.05 statistically significant

Table 2 :-

Group	Practice			Total
	Excellent	Good	Average	
Undergraduate	129	71	0	200
Paramedical	17	19	14	50
Total	146	90	14	250
	Fisher's exact value = 49.34, p<0.001*			

*P<0.05 statistically significant

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