PATIENTS' KNOWLEDGE AND ATTITUDES TOWARDS INFECTION CONTROL IN THE DENTAL PRACTICE

Lucia Bârlean, I. Dănilă , Cristina Dascălu, C. Meriuţă.
University of Medicine and Pharmacy "Gr.T.Popa" Iaşi, România
Faculty of Dental Medicine, Discipline of Preventive Dentistry

***Abstract*:**
Objectiv: This study aims to investigate patients concern and knowledge regarding the cross-infection risk and the infection control methods in the dental practice.
Material and methods: The questionnaire-based survey was conducted among 170 patients aged 16 to 68 years. The questionnaire included 20 items related to the medical staff protection equipment, dentist professional appearance and safety protocols in the dental practice. The patients' answers were analyzed by gender, age and education level. using the SPSS 15.0 statistical package and levels of statistical significance were set at $p<0.05$.
Results: The results revealed that 83,6% of the patients have confidence that the medical staff protects them from catching general illnesses during dental treatment.45,5% of the patients are concerned about the procedures used by the dentist to control cross-infection. Positive responses were associated with traditional professional clothing as the white coat and the name tag. 89,0% of the patients want the dentists to wear rubber gloves, 63,6% agree to face masks and 47,2% to protective eye glasses.
Conclusions: The results of the present study prove that most patients trust the dentist in the matter of infection control protocols adopted in the dental office but they claim a better approach in this domain. The medical team has the responsibility to inform the patient on the measures which have been taken to reduce the risk of infection, in order to increase the public confidence in dental care safety.

Key words: infection control, patient attitude, dentistry.

INTRODUCTION

The complex clinical activity carried on in the dental practice is associated with a high risk of transmitting pathogen agents from blood and saliva directly through contact with contaminated products, indirectly through instruments and equipments, as well as by cross-infection.(1)(6).

The population concerns regarding their health status imply a special interest towards infection control during the dental treatment, not only concerning the HIV infection, but also other infectious diseases such as viral hepatitis, tuberculosis or respiratory infections.(2) The patients' involvement in their own health care represents a strategy of increasing the medical staff responsibility for the safety of the medical act.(4).

MATERIAL AND METHODS

A questionnaire-based study was conducted among 170 patients in 12 dental offices in Iasi. The survey lot included 37% men and 63% women with ages ranging from 16 to 68 years. The questionnaire comprised 20 questions regarding the protective equipment, professional appearance of the medical team, knowledge concerning diseases that can be transmitted during dental treatments and the procedures with high risk of infection. The data has been analyzed by educational level, age and gender, using the SPSS 15.0 statistical package (levels of statistical significance were set at $p<0.05$).

RESULTS

The data from the questionnaires revealed the fact that the majority of the patients (83,6%) trust the medical staff in protecting them from contracting general diseases. Only 10,9% avoid the dental care because of the risk of getting infected and 5,5% do not think that they could catch a disease during the dental treatments.

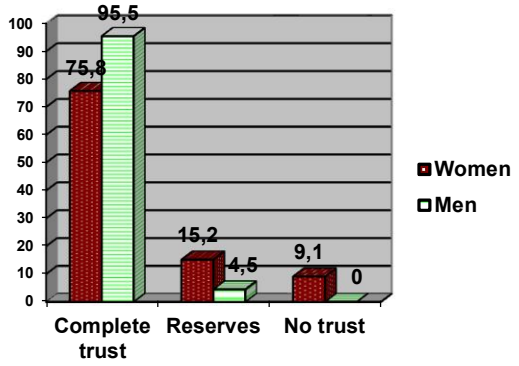

Fig. 1 The degree of trust in the medical staff by

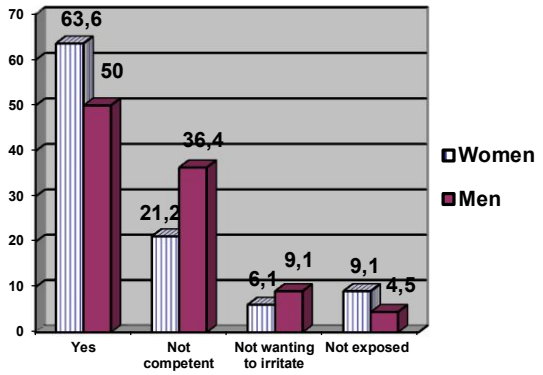

Fig. 2 Patients'involvement in infection gender control procedures

Men (95,5%) showed a higher level of trust in the medical staff than women (75,8%) .A percentage of 45,5% of the subjects are interested in infection control protocols applied after each patient (changing the glass for oral rinses, changing rubber gloves and facial mask , surface disinfection). Among those, the majority are young active persons ranging from 19 to 35 years old (46,7%) and 36 to 64 years old (39,1%). The older subjects (80,2%) and those with medium educational level (69,2%) don't consider that their implication is necessary ; 1,8% of the subjects are not interested in those aspects and 10,9% admit that they do not know anything about those procedures . There where significant differences by gender, women involving twice as much as men (51,1% to 27,3%) in making sure that the infection control procedures are applied (fig.2).

The diseases thought by the patients as presenting a high risk of transmission during dental treatments were : HIV infection (67,3%), viral hepatitis B(60,0%) and C (47,3%) and , in a smaller ratio, tuberculosis (25,5%) and flu (21,8%). The subjects with a medium level of education manifested a high concern regarding the HIV infection (84,6%) while the subjects with high education were more worried about the infection with a form of viral hepatitis (72,7%) .

Concerning the dentist clothing, 52,7% of the subjects would like the doctor to wear a surgical one made up of a white blouse and trousers , 23,6% prefer the classic gown and only 1,8% of the subjects agree a short blouse over the casual closing.20,0% of the subjects do not have any specific preference in this domain, 22,7% of them being men. Actually, a significant high percentage (65,5%), especially women and persons with high education, consider that the appearance of the doctor increases the trust of the patient in the quality of the medical act. About half of the subjects would prefer the doctor to wear an ID card.

The evaluation of the answers concerning the protective equipment, revealed the fact that 89,0% of the subjects want the doctor to wear rubber gloves, 63,6% agree to the face mask and 47,2% to the protective glasses; a relative low percentage of the patients (27,7%) are preoccupied by the hair protection with capelins. 98,2% of the interviewed persons , without significant differences by gender or education level , appreciate that those equipments reduce the risk of contracting various infectious diseases during dental treatments.

The medical instruments thought to have the biggest potential of transmitting infections are the endodontic needles (68,1%), the syringe needles (63,6%) and the dental burs (61,8%) .

The risk of contracting an infection during the visit to the dental office is associated by patients with lacks in the

sterilizing of the instruments (80,0%) and surfaces and equipments disinfecting (54,5%).

The procedures considered to be important for preventing the infection during dental treatments were: dentists' hands washing (78,2%) , the disinfection of the surfaces in the dental practice after each patient (56,4%) and handling the instruments by the doctor in safe conditions (45,5%).

DISCUSSIONS

The results of the study prove the trust of the patients in the medical staff and in the manner of applying the infection control methods. A low percentage of the interviewed subjects think that during the dental treatment they cannot contract a general disease. This fact demonstrates, especially in men, the lack of knowledge concerning the risk of being exposed.

Concernments regarding the procedures used by the dentists to control the infection are expressed particularly by young persons and women, whereas the majority of the old subjects don't have the necessary knowledge or do not consider that it is of their competence to interfere with the doctor acts. Also, the high level of education inflicts an involvement of the patient in his own health care, with benefic effects over the safety level of the dental treatment.

The majority of the patients want the doctor to use rubber gloves as an essential protective equipment for reducing the risk of infection transmission, the results of our studies being similar with the ones reported in the literature (3),(5). The percentage of the subjects willing to involve in the dental treatment is low revealing the trust granted to the dentist but also the lack of knowledge regarding the risk of infections and the measures needed to prevent it.

The way in which the appearance of the staff influences the perception of the patients regarding their competence reflects in the choices of the subjects for a sober appearance, the classic white gown and an ID seen as a mean of committing to the medical act. The subjects with high education consider that the appearance of the doctor increases the quality of the treatment, whereas the majority of the elderly persons do not asses the professional merits of the dentist by the way he is dressed.

CONCLUSIONS

The medical personnel has the responsibility to inform the patients on the measures used to reduce the risk of diseases transmission and to apply them in an obvious way, in order to reduce the concerns and the avoidance of the dental treatment.

The assessment of the patients' perception regarding the equipments, procedures and protective barriers which are not completely regulated by the law has to be a decisive factor for the compliance of the medical staff in using them in the dental practice according to the European standards concerning the safety of the medical act.

REFERENCES

1. Bârlean L., Dănilă I. **"***Prevenirea transmiterii infecţiei în stomatologie",* Ed. Edict, Iaşi, 2003.
2. Lill M., Wilkinson T.J., Judging a book by its cover: descriptive survey of patients preferences for doctors appearance and mode of address, *B.M.J.* 2005; (331) : 1524-1527
3. Mousa A.A., Mahmoud N.M., Tag El-Din A.M. Knowledge and attitudes of dental patients towards cross-infection control measures in dental practice , *Eastern Mediterranean Health Journal* 1997; (3): 263-273.
4. Palenik Ch.J. Strategic Planning for Infection Control *The Journal of Contemporary Dental -Practice* 2000; 1, (4) : 34-37
5. Shulman E.R., Brehm M.S. Dental clinical attire and infection-control procedures. Patients' attitudes. *J.Am.Dent.Assoc.* 2001;132 (4):508-516
6. Guidelines for environmental infection control in health-care facilities: recommendations of CDC and the Healthcare Infection Control Practices Advisory Committee, CDC *MMWR* 2003 ; 52 (nr.RR-10).