



IMPROVING THE EFFECTIVENESS OF THERAPEUTIC AND PREVENTIVE MEASURES BY CORRECTING PSYCHOEMOTIONAL STRESS IN CHILDREN AT A DENTAL APPOINTMENT

Ortikova Nargiza Xairullaevna,

Samarkand State Medical Institute, Uzbekistan

e-mail: ortikovanargiza2020@bk.ru

Rizaev Jasur Alimjanovich

Samarkand State Medical Institute, Uzbekistan

Abstract

Inopportune sanitation of oral cavity leads population to address with much heavier forms of teeth hard tissue diseases that makes difficult treatment, increases terms, expenses, and mainly makes worse outcome of disease. According to the research's results, fear of dental intervention takes a leading place among the reasons of inopportune sanitation. Fundamental works of last decades about spreading dentophobia among the population show that despite significant achievements in medicine and science in the field of high-effective safe anesthesia, anxiety and fear at dental treatment are felt by many patients, especially children. In the last year's growth of the patient's quantity addressed to dentist with complicated forms of teeth caries is observed also growth of cases with sharp inflammatory processes of maxillofacial area with odontogenic origin is described. Latest treat of patients to dentist determines the necessity to cure outpatient with surgical methods. Besides, possible complications might cause different somatic pathologies and generally deterioration of health in the the population.

Keywords: Dentistry, psychoemotional stress, therapeutic and preventive measures.

Introduction

One of the factors that lead to inopportune address of the population for dental help is psycho-emotional stress which provokes patients to postpone sanitation of oral cavity. Psychologic researches in dental clinic have been occurred recently. The interest to this problem, especially grown in last year's, determined by massiveness of outpatient dental appointment, negative consequences of psycho-emotional stress, insufficient development of emotional stress management methods. However, analysis about the study of patient's psycho-emotional condition at dental





appointment, spreading negative dental experience in Uzbekistan has not been provided earlier. Recommendations about overcoming psycho-emotional stress during treatment in dental clinic, tested in regional conditions have not been developed yet. The solution of above problems from positions of effective diagnostics and emotional stress management of dental patients is the main and perspective for increasement of population's appeal to dentist with the purpose of dental diseases prevention, raise of medical measures efficiency, quality of dental cure to the population. Settled problems correspond to main directions of scientific researches in dentistry of Uzbekistan.

Materials and methods of research

Research is occurred on the base of Samarkand regional specialized kid's dental polyclinic. Patients were divided into two groups, control (46 kids) and main group (54). The quantity of boys is 27, girls-19 in the control group. 30 boys and 24 girls were in the main group. Examined children were categorised by age according to physiological and biochemical age norms: Table1. Age periodization of patients in the main and control groups.

Examination of patients, healing procedures were held in the standard dental armchair, with the use of dental probe and mirror. The data of objective survey is written in the survey map. Methods of correction and prevention of psycho-emotional stress at dental appointment are directed to the increasement of healthcare efficiency. Deepening of knowledges about psychological side of disease led to occurring of many conceptual diagrams revealing the structure of patient's inner world. The most popular psychological method for our research was the test of Lusher representing psychodynamic methodology that allows to reveal repressed needs, localize the source of fear. Test is represented in two options: whole research with the help of 73 coloured tables and brief -with the use of eightcoloured row, is directed to study emotional and psychological condition of a man. The methodology reveals deliberate and unconscious reactions, expression degree of emotional stress.

However, these questionnaires do not allow dentist to determine fear in concrete stress-situations of dental appointment. For more different determination of fear in the dentistry in epidemiological and clinical researches the scale of dental anxiety by Corah (1969) is used. This test has low sensitivity to age, gender and cultural features of examined people [1,4,6,7]. However, most tests for determination of anxiety level have narrow direction. That is why it is necessary to use a set of tests that reveal personal features of patient, allows to evaluate his emotional-dynamic characteristics, predicts behaviour at dental appointment for getting person's portrait. Main clinical





manifestation of person's reaction is psycho-emotional stress, from the simple condition of psychological discomfort to the anxiety of neurotic level. The most wide used method in outpatient dental practice is the method of emotional condition determination with observing vegetative reactions of patient and also the survey which allows to reveal features of subjective worries. Statements of patients, some vegetative and behavioural signs succumb to analysis and help evaluate true condition of patient.

But, stress can be maximized by volitional efforts under the influence of ethical installations and moral norms, etc. Registration of main psychological functions of organism frequency of heart contractions, frequency of breathe, arterial pressure and others, and using the psychological tests let complete the objective picture of psychological worries. To evaluate the efficiency of correction's results the valuation of difference in importance of psychological indicators and data of patient's survey before and after dental appointment. Methodical recommendations are established to estimate the expression degree of patient's psycho-emotional stress before dental appointment. Results of all researches were processed with the help of modern mathematical methods of variation statistics. There are works in the literature about learning patient's common condition at dentist's appointment who have concomitant pathology since especially patients with weighed down somatic status anamnesis sharply react to the changes of nervous system tone. However, it is interesting to study condition of almost healthy young patients, analysis of changes in their physiological indicators at dental appointment, reaction to the changes of nervous system condition in those people, connection with psychological status [6,7,9,13]. With this purpose, the research of patient's physiological indicators was provided: measurement of heartbeat frequency, arterial pressure. All indicators were registered before and after dental appointment to reveal patterns of their changes.

Analysis of emotional stress level, depending on the groups of patients, showed that statistically significant differences in the emotional condition level based on the questionnaires are between patients depending on the treat order -planned or extra. Taken data confirms information about availability of emotional stress in patients at dental appointment. Those who addressed in extra order have a huge expression because their emotional stress is attached to the physical painful stress which they feel during the certain period of time. Thus, patients addressed with sharp painful syndrome evaluated their common condition before dental appointment as much heavier comparing to the planned patients, difference of the indicators is statistically significant ($p < 0,05$). This conclusion again confirms hypothesis about more expressed psycho-emotional stress, addressed in the extra order. The tasks of psychological and



social researches included the evaluation of emotional stress, revealing dentophobia, objective evaluation of kids behaviour at dental appointment, revealing factors caused dental anxiety. Tasks of somatic status included measurement of diastolic arterial pressure, measurement of heartbeat frequency with followed estimation of Kerdo's vegetative index. The tasks of biochemical research included studying the concentration of saliva cortisol and determination of salivation's speed. Common characteristic of clinical material. Directions of clinical researches. Studying of somatic status and activeness of VNS. Measurement of arterial pressure dAD. Determination of heartbeat frequency HBF. Estimation of Kerdo's vegetative index. Psychological and social researches.

Lusher's colour test. Frankl's test. Revealing the factor causing dental anxiety. Biochemical methods of research. Studying of caries spreading and intensity. Studying of hygienic condition of oral cavity (PHP). The quantity of examined people.

Results and Discussion

In the result of implementing non-pharmacological methods of psycho-emotional stress correction (NPHMPS) significant differences are revealed in children of two groups studied indicators. Reliable difference is determined between physiological, biochemical, psychological indicators of patients in main and control groups. I.e, we can claim that implementation of suggested methodology allows to decrease the risk of urgent conditions developing at present and dentophobia in the future. Another dental assistance conditions are being created - more comfortable either for patients or for doctors that decreases the risk of emotional burnout of dentists. Dental anxiety and dentophobia in children and teenagers - often the reason of late treat for dental help leading to complicated process of treatment and forecast worsening; these patients badly contact with the specialist and often do not fulfill his/her recommendations. Also they decrease the efficiency of local anesthesia that leads to the need of extra anesthetic injection, and present research has revealed that injections are huge stimulus for children-33% + 2,97 patients consider injections are reason for worry. On the base that NPHMPS showed their efficiency in kid's dentistry practice which is proved by less RK and IK in children of the main group, best hygienic condition of oral cavity, we think it is necessary to widely implement methodology in practical healthcare. We can attribute safety, lack of side effects, easily adjustment and implementation by dentist, establishing comfort interaction between kid's dentist and patient to its features. Use of NPHMPS allows to increase medical efficiency of dental treatment.





Conclusion

Thereby, suggested ways of corrections of psycho-emotional stresses in children at dental appointment were described by another researchers. Such as, atraumatic rehabilitation treatment (ART) and methods of chemico-mechanic caries removal (CMCR); hypnosis; behavioural intervention or methods of behaviour managing; music; relaxation and pharmacological means. Analysis of available publications determined that dentophobia is closely connected with clinical significant worsening of oral cavity condition and teeth which often means higher possibility of nonregular care after teeth with the use of only urgent dental help or even sometimes whole avoidance that leads to health worsening of the oral cavity. Besides, it was discovered that anxiety during teeth treatment leads to incomplete cooperation with the dentist. It in its turn leads to excess difficulties in making dental procedures and unsatisfactory results. It was discovered that not enough attention is payed to the psychotherapeutic methods of psycho-emotional stress correction despite their undoubted advantages. It was detected that after their use dentophobia is not revealed, VNS function aims to the balance of sympathetic and parasympathetic components (thus testifying about reducement of psycho-emotional stress), biochemical and physiological indicators come to the norm, patients apply to the upcoming dental treatment more pleasantly (based on the Frankl's and Lusher's tests) and their motivation to keep hygien of the oral cavity strengthens. Hygienic condition of the oral cavity is worse to 105% in 6-10 aged patients of the control group after a year; efficiency of sealing method in the main group is 81% and in control is 67%, reduction of caries growth in the main group comparing to the control group is 19,0% coming to the end of present research.

References

1. Abramova E.A, Karahanov V.A. Dentophobia at the dental appointment // Scientific magazine. 2016. №_11 (12). URL .
2. Bastrikov O. U. Hormonal, immunological and psychological markers of psycho-emotional stress in patients with arterial hypertension // Arterial hypertension, - 2018, -№_2 (28), P. 151-161.
3. Bilinskiy I. I., Dobrovolskaya M. K., Bilinskiy A. Y. Change of biochemical saliva properties and their impact on dental status of the students under the stress influence // Scientific works of Vinitkiy national technical university, -2017,-edit. 1, P. 1-6.
4. Gorachev, N.A. Psychoprophylactic preparation in dental practice: edu-method. manual/N.A. Gorachev, I.T.Musin, D.N.Gorachev,-Kazan:Medicine, 2012.-16 p.





5. Dankovtsev O.A., Gulin A. V., Maksimenko V.B. Features of psychological development, component compound of teenagers body with norm weight and arterial hypertension. *Vestnik TGU*.-2011.-16(1), P. 376-378.
6. Kazakova L.N., Mahonova E.V., Pogosyan M.A., Prokaeva E.A. Impact of kid's psycho-emotional stress during dental intervention on distress formation in dentists // *Modern problems of science and education*. -2016.- N 3;
7. Kulagin, A. E. Arterial hypertension and hypertension in children: pathophysiology, clinic, urgent therapy: edu-method. manual / A. E. Kulagin, A.V. Silorskiy, A.M. Chichko. -Minsk: BSMU, 2014,-43 p.
8. Leonovich O.M. Kid's psycho-emotional stress at dental appointment/Dentistry of Belarus in new millennium: sb. materials of the 9th dental intern. scient-pract. conf. within the 6th intern. special. exhibition "Dentistry of Belarus"/ under edit. of I. O. Pohodenko-Chudakova, T.N.Terehova, I.E. Shmott.-Minsk:ZAO "Technology and communications", 2010.-P. 176-178.
9. Leus P.A. Diagnostical significance of salvia homeostasis in the therapeutic dentistry clinic: edu-method. manual/Belarus. state.med.uni-y; the 2nd dep.therapeut.dentistry. Minsk:BSMU, 2011. 67 p
10. Makarov L.M., Kiseleva I.I., Komolyatova V.N., Fedina N.N. New norms and interpretations of kid's electrocardiogram // *Pediatrics. Magazine* by G.N. Speranskiy. 2015. N 2.
11. Molofeeva V.A. Dentophobia: why are children afraid of dentists? // *Problems of dentistry*. 2013. N 3.
12. Pinelis V.G., Arsenyev E.N., Senilova Y.E. Content of cortisol in salvia of healthy children// *Questions of diagnostics in pediatrics*. 2009. T. 1. N 1. P. 49-52.
13. Terehova T.N., Leonovich O.M. Dental status of children with different anxiety level to dental intervention // *Modern dentistry*. 2016. №_1 (62). URL.
14. Fattahov R.A., Rizaev J.A. Studying of the psycho-emotional stress level in patients at dental appointment. *Dentistry*. 2017; 3: 75-9
15. Fattahov R.A. Studying of spreading and reasons of dentophobia at outpatient dental appointment in the c. Tashkent. *Russian dental magazine*. 2018; 22(4) DOI:
16. Fomenko I.V., Kasatkina A.L., Melnikova D.V., Melnikov P.Y., Gnidina A.V. Analysis of anxiety level in children at outpatient surgical appointment // *Modern problems of the science and education*. -2017.- N 5.



Lusher's colour test. Frankl's test. Revealing the factor causing dental anxiety. Biochemical methods of research. Studying of caries spreading and intensity. Studying of hygienic condition of oral cavity (PHP). The quantity of examined people. Results and discussion. In the result of implementing non-pharmacological methods of psycho-emotional stress correction (NPHMPS) significant differences are revealed in children of two groups studied indicators. Reliable difference is determined between physiological, biochemical, psychological indicators of patients in main and control groups. I.e, we can claim that implementation of suggested methodology allows to decrease the risk of urgent conditions developing at present and dentophobia in the future. Another dental assistance conditions are being created - more comfortable either for patients or for doctors that decreases the risk of emotional burnout of dentists. Dental anxiety and dentophobia in children and teenagers - often the reason of late treat for dental help leading to complicated process of treatment and forecast worsening; these patients badly contact with the specialist and often do not fulfill his/her recommendations. Also they decrease the efficiency of local anesthesia that leads to the need of extra anesthetic injection, and present research has revealed that injections are huge stimulus for children-33% +_ 2,97 patients consider injections are reason for worry. On the base that NPHMPS showed their efficiency in kid's dentistry practice which is proved by less RK and IK in children of the main group, best hygienic condition of oral cavity, we think it is necessary to widely implement methodology in practical healthcare. We can attribute safety, lack of side effects, easily adjustment and implementation by dentist, establishing comfort interaction between kid's dentist and patient to its features. Use of NPHMPS allows to increase medical efficiency of dental treatment. Conclusion. Thereby, suggested ways of corrections of psycho-emotional strees in children at dental appointment were described by another researchers. Such as, atraumatic rehabilitation treatment (ART) and methods of chemico-mechanic caries removal (CMCR); hypnosis; behavioural intervention or methods of behaviour managing; music; relaxation and pharmacological means. Analysis of available publications determined that dentophobia is closely connected with clinical significant worsening of oral cavity condition and teeth which often means higher possibility of nonregular care after teeth with the use of only urgent dental help or even sometimes whole avoidance that leads to health worsening of the oral cavity. Besides, it was discovered that anxiety during teeth treatment leads to incomplete cooperation with the dentist. It in its turn leads to excess difficulties in making dental procedures and unsatisfactory results. It was discovered that not enough attention is payed to the psychotherapeutic methods of psycho-emotional stress correction despite their undoubted advantages. It was



detected that after their use dentophobia is not revealed, VNS function aims to the balance of sympathetic and parasympathetic components (thus testifying about reducement of psycho-emotional stress), biochemical and physiological indicators come to the norm, patients apply to the upcoming dental treatment more pleasantly (based on the Frankl's and Lusher's tests) and their motivation st

