

# SOCIOLOGICAL METHODS FOR STUDYING THE RELATIONSHIP BETWEEN DENTAL AND GENERAL HEALTH OF UNIVERSITY STUDENTS

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Students of higher educational institutions (universities) constitute a special social layer of the population, united by a certain age, specific learning conditions and lifestyle. Mastering the sciences requires huge amounts of energy, psycho-emotional stress, physical effort, mobilization of the body’s reserves from young people. (1,4,8)

Student youth is one of the main reserves of highly qualified specialists for various sectors of the national economy. Modern students will have to realize in the future the most important social functions of society: professional, labor, reproductive, intellectual and moral, etc. (5,6)

Expensive mass medical examinations are carried out to determine the state of health in different countries, meanwhile, an important criterion is self-assessment of health, the determination of which is relatively easy to perform among different categories of the population. The Health Survey questionnaire, developed in accordance with the 8020 program "Was used in Japan and some other countries of the world to evaluate oral health, related lifestyle, general health and quality of life of the population, but similar studies have not been conducted in Russia before. (4,7,9,10)

In connection with the foregoing, the use of sociological research methods to study the relationship between dental and general health of students is an important and relevant area of scientific research.

**The aim of the study is to substantiate the use of sociological methods for studying the relationship between dental and general health of university students.**

The subject of the study was the sociological methods of studying the relationship of dental health with the general health of students.

The study was conducted in Samarkand universities:

1. Samarkand State Medical Institute:
  - a) faculty of dentistry
  - b) pediatric faculty
  - c) faculty of medicine
2. Samarkand State Institute of Economics and Service (SamISI)
3. Samarkand State University (SamDU)
- 4 Samarkand Veterinary Institute (SamVMI)
5. Samarkand State Institute of Information Technologies (SamGIT)

Our study involved 1024 students' (513 men (50.1%), and 511 women (49.9%) aged 18-25. The age-sex composition of the subjects is presented in Table 2.1.1. The average age of students was  $19.3 \pm 1.5$  years (men  $19.2 \pm 1.4$ , women  $19.4 \pm 1.6$ ).

To achieve the goal of the study, a student survey was organized using the Health Survey questionnaire, for which a Russian version was created and its cultural and linguistic adaptation was carried out.

**Table 2.1.1. The number and age of students examined by university.**

University	Men			Women			Total	
	Qty	%	Age M±m	Qty	%	Age M±m	Qty	Age M±m
SamMi to lay down.Fac.	60	42,9	20,7±1,6	71	57,1	20,0±1,7	131	20,3±1,7
SamMi stom.fak.	19	6,9	20,3±1,9	132	93,1	20,6±1,5	151	20,5±1,6
SamMi ped.Fac	37	36,6	19,3±0,9	64	63,4	18,6±0,6	101	18,9±0,7
SamDU	268	78,0	18,5±1,0	135	22,0	18,7±1,0	403	18,6±1,0
SamVMI	77	76,2	20,0±0,9	24	23,8	20,0±0,9	101	20,0±0,9
SamGIT	41	66,1	19,2±0,6	21	33,9	18,1±0,5	62	18,8±1,2

SamISI	11	14,7	18,5±0,8	64	85,3	19,0±1,2	75	18,9±1,2
Total	513	50,1	19,2±1,4	511	49,9	19,4±1,6	1024	19,3±1,5

The Health Survey (HS) questionnaire, developed by scientists at the Department of Dental Prophylaxis and Public Health at Aichi-Gakuin University, Japan, and the Dental Health Services of Leeds, UK (Stewart A. et al., 1988; Kunisalci T et al. , 1991; Kumagai N. et al., 2015). The direct translation of the original questionnaire into Russian was carried out, then with the help of another translator (Professor Lutz Stösser, Germany) they translated back into English, the translation of the questionnaire was evaluated by an expert committee (leader - Professor Haruo Nakagaki, Japan).

The questionnaire was designed to study the relationship between lifestyle, general health, oral health and human quality of life, as well as to evaluate the implementation of the 8020 program. The “8020” program, the active introduction of which began in 1989 in Aichi-ken (Japan), aims to improve the health of the oral cavity of people and the preservation of at least 20 teeth in a person aged 80 years. One of the important sections of this program is the assessment of the life style of people to achieve the goal (to have 20 teeth in 80 years).

A non-repetitive sample was used when the respondent filled out the questionnaire only once. After receiving the completed questionnaires, overall quality control of the information received was carried out, partially filled questionnaires were rejected. The completed questionnaires were informative, complete and selective, i.e. the data obtained were informative for the planned study; there were no missing and unnecessary data that did not correspond to the goals and objectives of the study. Given the uniform composition of the general population, this sample was adequate to the goals and objectives of the study.

The sample was formed by gender, age. After analyzing the questionnaires, we were able to determine: self-esteem of overall health and oral health, lifestyle, satisfaction with various life aspects, quality of life in relation to the dental health of students, behavioral stereotypes of young people that affect dental and general health.

Questioning was carried out in educational classrooms of universities. Interviewees conducted an explanation of the purpose and objectives of the study (an average of 3 minutes). All students (healthy and chronically ill) took part in the study; the survey lasted 3-4 minutes. Participation in the study was voluntary.

The study consisted of three parts.

The first part included a questionnaire of students on issues (18), which made it possible to determine the prevalence of symptoms of major dental diseases, students' behavioral stereotypes, students' attitudes to visiting a dentist, identify the presence of stomatophobia, and calculate the students' dental health index. The analysis of the data was carried out on the basis of determining the frequency distributions of student responses. The dental health index was determined in points.

The second part included 15 questions that related to the study of changes in general health due to problems in the oral cavity. The analysis of this part of the study was carried out on the basis of frequency distributions of responses. The third part included 20 questions that envisaged the study of various functions of the general health of students; they were combined into 6 groups characterizing various functions of the body and self-esteem of health: physical function (6 questions), mental function (5 questions), role function (2 questions) , social function (1 question), health perception (5 questions), pain perception (1 question). Evaluation of answers for each group of questions was carried out in points. The analysis of the data of the third part of the study included a comparative characterization of the results with the data of the first part of the study and the determination of the correlation relationships between the dental health index and the overall health indicators of students.

The results of all studies were analyzed taking into account the tender approach.

To carry out this part of the study, the NB questionnaire was adapted, including a regrouping of questions, depending on the direction of the study. The first group of questions was aimed at studying the signs (symptoms) of major dental diseases (5 questions). The second group of questions was aimed at studying behavioral stereotypes of young people that affect the state of the oral cavity and characterize life position (8 questions). The third group of questions (5) was aimed at studying the experiences of students in various situations related to dental practice, which made it possible to identify the prevalence of stomatophobia among young people. Based on the results of the questionnaire, the frequency distributions of student responses were determined.

The dental health index of students was determined in accordance with the methodology of the "8020" program, which assumed a ball-point assessment of answers to questions characterizing the health of the oral cavity and students' lifestyle. The criteria for evaluating the dental health index were as follows:

\* The index of 20 points is an ideal value that showed a high level of oral health and the orientation of students' lifestyles to achieve good dental health.

\* An index from 16 to 19 points testified to a good condition of the oral cavity and that the existing lifestyle of this person is suitable for achieving a higher level of dental health. However, despite this, it was recommended to improve the existing situation, trying to eliminate answers with a zero rating.

**Table 1**  
**Dental health index score of 8020.**

№	Questions	The answers	
		Yes points	Not points
1.	Have / Have you had swollen gums?	0	4
2.	Have / Have you had a toothache?	0	3
3.	Do you often have snacks / snacks between meals?	0	3
4.	Do you have a hobby?	3	0
5.	Do you have a family dentist?	2	0
	Do you go to the dentist as soon as you start	1	0
6.	is it pain?		
7.	Have / Have you had any bleeding gums?	0	1
8.	Do you brush your teeth twice a day?	1	0
9.	Do you have your own toothbrush?	1	0
10.	Do you smoke cigarettes or tobacco?	0	1
	<b>Total points</b>	<b>20</b>	

\* \* An index of 11-15 points showed that the existing state of oral health is not very good, and behavioral stereotypes are aimed at deteriorating dental health. To preserve teeth according to the "8020" program, it is necessary to reconsider your lifestyle and eliminate answers with a zero rating.

\* \* An index of 10 or less points indicated poor health of the oral cavity and showed that existing habits are unsuitable for health. It was strongly recommended that you visit a dentist, reconsider your lifestyle and try to improve this situation, trying to reduce the number of answers with a zero rating.

The total dental health index of students was compared with similar data from a survey of students of foreign countries. In addition, based on the results obtained, a comparative analysis of the dental health indices of students of various universities in Samarkand was conducted and the data obtained were ranked in accordance with the average point score of each university.

For all parameters of this part of the study, differences between the results of the survey of men and women were determined.

For the first time, a new method was used to study the relationship between dental and general health of students using the Russian version of the Health Survey (HS).

For the first time, it was found that the majority (62.9%) of university students had a high prevalence of symptoms of major dental diseases, and 46.8% experienced acute toothache. A lack of dental treatment requirements was reported by 17.5% of students.

Female students had changes in general health due to problems in the oral cavity more often than male students: 77.3% and 70.3%, respectively (on average - 74%). For the first time it was established that oral problems in students were more often manifested in the form of various kinds of mental discomfort (68.6% of students) than in violation of somatic health (31.8% of students).

For the first time, it was determined that the behavioral stereotypes of most student youth, especially men, are aimed at deteriorating oral health: poor nutrition (54.6%) and oral hygiene (20.0%), smoking (25.1%), irregular visits (90.6%) and avoiding visiting a dentist with pain (50.6%). For the first time a high prevalence (80.9%) of stomatophobia among university students was established, which was more characteristic of women than men.

**Conclusions:** for the first time, an index of dental health of students was determined, a comparative tender characteristic of the dental health indices of students was carried out, which in most universities in the city were higher in women than in men. For the first time, the compliance of the dental health index with the social image of the general health of students of Samarkand universities has been determined.

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