

Generational and Social Mobility of Dentists in Bulgaria During the Period of Transition. Facts and Figures

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Abstract

Introduction: This study is part of a longitudinal research of the re-professionalization of dentists in Bulgaria during the period of social and economic transition.

Purpose of the Study: Of this study was to demonstrate the dynamic of professional reproduction based on the analysis of the generational mobility and succession of career choice among dental students.

Methods: This investigation encompasses 5 comparable surveys carried out in: 1995 (n = 120), 2004 (n = 100), 2008 (n = 100), 2014 (n = 100), 2018 (n = 130) collected through a 20-item self-administered questionnaire focused on: family of origin social status, educational background, health status and health behaviors, motivation for career choice and expectations for professional realization of dental students. Data were analyzed comparatively. Intergroup numerical distributions were analyzed.

Results: For the whole studied period the portion of students originating from families with medium income prevails (up to 70% in 2004, more than 80% in 2008 and 2014, and about 70% for 2018). Men/women ratio for the period 2004 - 2018 is reflecting a continuous de-feminization of the dental profession. After 1995 the percentage of parents with medical or dental degree doubled. The part of students who graduated from highly competitive high schools doubled twice (from 8% in 1995 to 20% in 2004, up to 48% in 2008, and stays sustainably over 70% after 2014). Important influences on their choice of dentistry are related to parents' example (up to 44%) or professional image of a dentist (40% - 50%). Most attractive professional feature for students after 1995 are the "independent nature of the profession" (about 60%) and the "expectation for financial security" (about 40%), followed by features as "working for people" (about 30%) and "social prestige" (30% - 40%).

Conclusion: Dentists in Bulgaria followed a sustainable development toward socio-professional identity accordingly to the overall social differentiation process, demonstrated by quasi uniform middle incomes' status origin and prevailing higher and professional level of education of parents. Generational and social mobility of dentists is directed toward consolidation of the social status, evidenced by the family continuity in professional choice with slight trend toward opening to other social groups. The professional group keeps its social position of well-educated and healthy and wealthy style individuals, sharing the basic values of their peers globally.

Keywords: Professional Choice; Social Mobility; Generational Mobility; Social Origin; Dental Demography; Dental Students

Introduction

In modern societies, social mobility is typically measured by career and generational changes in the socioeconomic level of occupations [1]. A special socio-economic group of occupations is formed by the "professions". One occupation becomes a profession following a

social process of differentiation beyond the simple division of expert work into a social status, comprising a set of typical social features: specific professional higher education, autonomy, authority, and social mission [2].

“Dentistry is one of the most complex and challenging occupations. It deals with different types of problems - pain, destruction of living tissues, loss of function and even risk of de-socialization. It provides solutions to this multitude of issues applying methods, materials, techniques and technologies to relief pain, restore defects, functions and esthetics, assist re-socialization of individuals and assure better quality of life. Most of sociological investigations, assessing motivation for choosing dentistry, showed that its liberal professional character is the strongest motivator, even stronger than the prestige and good income” [3].

The social history of the dental profession in Bulgaria is an example of the social system development itself. The change in the social status of the dental professional group illustrates the impact of social relationship on the social structures' formation. After a period of gradual increase and strengthen of the socio-professional group of dentists and its involvement in health politics, started a contradictory period of new public relations – the communist governance (1944 - 1991) when the private dental practice was banned and the health infrastructure became state property. The ban on private practice put dentists in the inability of making independent professional decisions, which could be defined as a fact of de-professionalization [4]. The rapid increase in number of dentists during this period was due to political decisions rather than a growing interest in starting a dental career. The strong trend of feminization [5] and very low rate of succession in professional choice of offspring of dentists [6] was observed.

Social reforms after 1989 restored the image of the profession and set it up again in the role of partner in a new social contract. The period of re-professionalization (1991 - 2007) is characterized with a sustainable trend of de-feminization and demonstrative succession in professional choice [7].

It could be expected that these conditions are favorable for the development of the profession and it will display the ascending public involvement: a certain market share, good income, prestige, an active stance on health-social problems or health policy. As a result, plead of the profession could be expected to increase as well as continuity between generations in choosing dentistry as professional occupation. Whether in fact it is so?

To answer this question, more than 20 years ago, we started to explore the changes in the social status of dentists in Bulgaria in our contemporary history [8]. In this connection we performed a longitudinal investigation covering two main directions:

1. Observation of the dynamic formation of the socio-professional group;
2. Analysis of the processes of the reproduction of the socio-professional group.

This paper is focused on the analysis of the reproduction of the socio-professional group. The publications giving information on the professional and social status of dentists in Bulgaria before 1991 were very few, only some historical and statistical data were published. The interrelationship between social origin and professional choice was first analyzed in 1983 based on a survey among the dental students in Sofia (Tzenova, Topalova) [6]. In 1995 a second similar survey was carried out (Katrova, Tzenova) [9]. The social status of dentists and the social perspective for the dental profession in Bulgaria was investigated as a reflection of the process of social re-stratification the latest decade of the last century. The socio-professional and generational mobility of dentists was studied in the context of the social transition from totalitarian towards democratic regime, including legislative changes, the European integration and the global economic challenges faced by the population of Bulgaria (Katrova) [8,10].

It was demonstrated that the loss of professional autonomy (de-professionalization) resulted in lack of interest in choosing the dental doctor's career. Hypothetically, the autonomy recognition after 1990 was expected to boost the professional reproduction and de-feminization.

Purpose of the Study

The purpose of this study was to demonstrate the dynamic of professional reproduction based on the analysis of the generational mobility and succession of career choice of dental students for the period 1995 - 2018.

Materials and Methods

This study is part of a longitudinal research of the dental profession in Bulgaria during the period of social and economic transition. A self-administered questionnaire had been distributed to dental students of the Faculty of Dental Medicine of Sofia in: 1995, 2004, 2008, 2014, and 2018. Data for 1995, 2004 and 2008 are published [9,11,12], data for 2014 and 2018 are part of yet unpublished studies. The questionnaire was constructed to collect information on the demographic and social traits of dental students, motivators of choice of profession, career expectations and value orientation of students. The results from the successive studies are comparable based on the similar design of the surveys. The data were analyzed for inter-groups differences and trends of continuity.

Results

When the surveyed groups are examined it is evident that the absolute number of participants is different. It should be taken in mind that the difference of samples is due to the significant change in the annual intake of students. These numbers correspond roughly to the same ratio of representation of the studied populations [13]. The respondent rate (between 96% and 72%) is satisfactory for the purpose of the survey (Table 1).

Year	Survey Authors	Year of study	Number of participants	Number of respondents	Response rate (%)	Number of students
1995	Katrova,Tzenova	3	120	115	96%	127
2004	Katrova, Papanchev	3	100	88	88%	140
2008	Katrova, Mihaleva	3	100	72	72%	150
2014	Katrova,	3	100	73	73%	174
2018	Katrova,	3	130	99	76%	181

Table 1: Composition of the surveys and the respondent rate (1995 - 2018).

Socio-demographic portrait of dental students

The mean age of students decreased of about 1 year after 1995 for male students. These figures reflect the following facts: elimination of compulsory military service for male students and increased competitiveness among applicants for admission examinations (50% of the students are admitted immediately after high school graduation while 28% of them succeed after a second attempt) [9,11,12] (Table 2).

Survey		Average age of males	Average age of females	Male/female ratio (%) of males
Year	Authors			
1995	Katrova,Tzenova	22.8	20.9	45.6%
2004	Katrova, Papanchev	21.7	20.8	48.4%
2008	Katrova, Mihaleva	21.0	21.0	50.4%
2014	Katrova,	22.6	22.1	41.1%
2018	Katrova,	21.3	21.5	26.3%

Table 2: Demographic characteristics of dental students (1995 - 2018).

Contrary to the global trend towards feminization of professions, in particular of the dentistry, during the period of transition in Bulgaria (the 1990s), an increase in the proportion of male dentists is observed, and this trend remains stable in the subsequent 15-year period. The percentage of female dentists decreased considerably between 1983 and 1995 (by 18,4%). For the studied period (1995 - 2018) the decrease in the male: female ratio is going to 9,2% (Table 3).

Number of Dentists		Male/female ratio (%)
1995	6778	27.00%/73.00%
2004	6991	32.00%/68.00%
2008	7834	33.50%/66.50%
2014	8874	35,94%/64.06%
2018	9063	36.10%/63.90%

Table 3: Demographic characteristics of dentists (1995 - 2018).

Before 1989 the definition of the social status was not based on income differences but on the quasi egalitarian groups' description as: "agrarian cooperators", "workers" and "employees". Even at that time the choice for studying dentistry was usually made by applicants originating from medium income family (highly qualified workers and employees rather than agrarian cooperators and low qualified workers).

Data in table 4 demonstrate the social background of dental students according to material and educational status of their parents. For the whole studied period the percentage of students originating from medium income families was prevailing (up to 70% in 2004, 82% for 2008, 78,2% for 2014, 68,4% for 2018) [12,14].

Educational level of parents is rising sharply after the first survey (the proportion of higher education graduates increased from 13.5% in 1983 to 54% in 2008). After 1983, the proportion of parents with medical education grew significantly and steadily (from 23.2% to 54.5%), as the greatest increase in the percentage of dentists (about 1/3 between 1995 and 2004). The comparison between the results of any subsequent research showed a demonstrative increase in the proportion of parents with professional occupations, in particular with medical occupations (Table 4).

Survey		Family income			Education of parents		
Year	Authors	Low	Medium	High	Higher medical	Higher other	Lower
1995	Katrova, Tzenova	21.70%	73,50%	4.80%	32,80%	40.10%	27,10%
2004	Katrova, Papanchev	17.00%	73,90%	9,10%	54,50%	37.50%	8,00%
2008	Katrova, Mihaleva	10.00%	82,00%	8.00%	46,00%	54.00%	-
2014	Katrova,	14,80%	78,20%	7.00%	38.65%	58.26%	3.09%
2018	Katrova,	25,6%	68,40%	6.00%	23.23%	65.65%	5.05%

Table 4: Distribution by income and education of dental students' parents.

The level of professional continuity between generations is doubled for a period of 10 years, and then began to stabilize at slightly lower levels. For the period 2004 - 2008, the trend was preserved with signs of slowing. Comparative data on students' origin (income, parents' educational status and occupational affiliation) during the entire studied period (1995 - 2018) were relevant to theoretical

concepts on processes of de-professionalization/re-professionalization and disruption/restoration of generational mobility within the professional community [1,2,8,15].

The portion of students, graduating from elite high schools (language, natural sciences and mathematics-extended programs' schools) increases considerably (from 8% in 1983 to 22.4% in 1995 and grew up to 77.77% in 2018) [6,9,11,12] (Table 5).

Survey		Elite schools	Work while studying	Have hobbies	Practice sports	Smoke cigarettes
Year	Authors					
1995	Katrova,Tzenova	22.40%	32.80%	66.70%	42.30%	42.00%
2004	Katrova, Papanchev	24.80%	50.00%	73.90%	53.40%	33.00%
2008	Katrova, Mihaleva	74.00%	22.00%	74.00%	60.00%	32.00%
2014	Katrova,	75.80%	19.00%	80.20%	57.00%	28.00%
2018	Katrova,	77.77%	63.63%	69.69%	62.62%	23.23%

Table 5: Education and life style of students.

Before 1995 the students usually do not work while studying. In 2004, half of them already work, half of those, who work, are working in dentist's offices. In 2008, the percentage of working students decreased. This change correlates with an increase in the percentage of students originating from families of dentists and/or with income above the average. The latest investigation showed that working during study period became a usual practice. This could be due to the increase of the number of dentists resulting into a rise in competition. Therefore, students try to familiarize with dentistry before graduation. More than half of the students reported they have different hobbies, two-thirds of them practice some sport. An insignificant percentage of them (3%) were receiving some medications on regular base. One-third reported about smoking experience with a trend in reducing the number of smokers (from 42% in 1995 to 23% in 2018). [9,11,12].

Professional choice and expectations for future professional achievement

Almost all of the students (between 88% and 98%) reported they would make the same choice of professional studies. The percentage of admitted at first attempt increase gradually (from 47% to 85%). The majority of interviewed took their decision during the last year in high school. It is interesting to find that the school had very little influence on their decision making (between 7% and 14% of answers), the influence of the family remains stable comprising about half of the answers while the influence by a dentists' image is steadily increasing (between 17.4% and 55.6% [9,11,12] (Table 6).

Survey		Would make the same choice	Influenced by parents' example	Influenced by school	Impressed by dentist	Admitted at first attempt
Year	Authors					
1995	Katrova,Tzenova	93,50%	43.90%	7,80%	17.40%	54.30%
2004	Katrova, Papanchev	88,60%	58.80%	6.80%	35.20%	47.70%
2008	Katrova, Mihaleva	98,00%	46.00%	10.00%	40.00%	68.00%
2014	Katrova,	94.00%	42.00%	10.00%	49.32%	85.00%
2018	Katrova,	90.00%	32.32%	14.14%	55.55%	77.77%

Table 6: Process of making the choice of profession and factors influencing the decision.

The major motivator from professional values' system for the studied period is the independence of the profession (Table 7).

Survey		Financial Security	Social Prestige	Helping People	Independence	Working with people
Year	Authors					
1995	Katrova, Tzenova	39,10%	57.00%	27,80%	38,70%	31,30%
2004	Katrova, Papanchev	58,00%	33.00%	41.00%	58.00%	16,00%
2008	Katrova, Mihaleva	44,00%	38,00%	32.00%	60.00%	24.00%
2014	Katrova,	34.20%	30.00%	28.00%	62.00%	12.00%
2018	Katrova,	27.27%	19.09%	20.20%	65.65%	9.09%

Table 7: Professional values for dental students (more than one answer).

It demonstrated sustainable and rising trend. Priority is given also to finance and social prestige, followed by working with people and helping others.

Literature sources showed oppositely diverse impacts on the students' professional choice. For the students in a private dental school in Istanbul (Turkey) the key role of the family is most important for taking the final decision [18] while in a study carried out in Nevada, USA half of 152 first-year students designated their family dentist as the person having the greatest influence on their decision [19]. According to a survey conducted in Australia 85.3% of the students were mostly self-motivated to start studying for dentist [20].

A perspective for opening an own private practice is in an upward trend (from 20% in 2004 to 60% in 2014), while the early specialization is a going down trend (from 40% in 2004 to 18% in 2018). The family practice is also a desired career path with steady increase, but with much less impact than the own private practice option. Until 2004 about 10% of 3rd year students planned to start an academic career, while in 2018 such a possibility was the choice for less than 2% of students. After 2008 leaving the country becomes an option for more than 10% of female and 20% of male dentists. One third of students expects difficulties with patients' recruitment when start practicing (32.32%) and/or registration of their new practices (24.24%). More than the half do not feel yet ready for meeting patients (57.57%) and 24% are not certain [4,6,8,9,12, 13].

Similar findings were published for a large number of countries and periods. Students in Johannesburg (South Africa), Sydney (Australia) and Amman (Jordan) designated "professional independence" and "financial stability" as leading reasons for choosing dentistry [20,22,25]. According to Aguiar, et al. (2008) after questioning 1,024 students in Pernambuco (Brazil), reported that 73.5% of the students chose the dental profession for economic reasons [23]. The longitudinal study of the motivation of French students to choose dentistry carried out between 1972 - 1994 (1972 (n = 236), 1982 (n = 197), and 1994 (n = 108) reported that the students were increasingly recruited from the 2 upper social classes. Among motives for choosing dentistry were listed "altruistic motives", the "desire for varied work" with the opportunity to put theory into practice, "economic rewards", and the "implicit social status". Compared to the 1972 students, those in 1994 placed greater emphasis on social status as a motive [24].

The motives for choosing dentistry in Denmark included, apart altruistic motives, economic rewards, and implicit social status, opportunity to work in the biological and scientific field, and on the ready availability of work outside Denmark [21]. The major influence on the choice of career for final year dental students at King's College London, a part of the jobs' features, such as 'regular working hours' (91%), 'degree leading to recognized job' (90%) and 'job security' (90%), was a 'desire to work with people'; Indian students were twice as likely to report this as white or other ethnic groups [25].

Discussion

The process of transition from totalitarian to democratic system in Bulgaria (1990 - 2015) ended in major social and economic changes. The country moved from an egalitarian societal model hiding the privileges of the “nomenclature” governing social groups to a civil society based on the agreement on universal human rights. The centralized state system of goods’ distribution including health care was shifted to a decentralized, pluralistic system, based on market demand and supply of healthcare services and respect for freedom of choice and self-determination for any participant in the market [4].

The reform in dental care system started in 1991 with the privatization of dental services and the subsequent rise in the number of private dental practitioners. The ultimate point in health care reform was the switch from publicly funded to mandatory health insurance in 2000. The National Health Insurance Fund (NHIF) was established to finance medical and dental care.

On the other hand, health care entities, the dental practices, in particular, showed fast development. Dentists started to identify themselves as a regulated profession [10,14].

Classic sociology of professions recognizes two key indicators for assessing prosperity of one socio-professional group: –male/female ratio, significant sign of material status and the generational mobility as a model of reproduction stability [2,15,19].

The increasing percentage of students originating from dentists’ family confirm the sustainable status determination. The longitudinal study finding demonstrated a strong trend towards de-feminization between 1995 and 2008 and a slight opposite trend after 2014. The process of social stratification, along with the strengthening the socio-professional identification of dentists, respectively the applicants for studying dentistry is shaped by the overall socioeconomic development of the country and with some impacts according to the growing number of dentists [3,14].

Conclusion

Dentists in Bulgaria now form a socio-professional group accordingly to the overall social differentiation process, demonstrated by quasi uniform middle income status origin and prevailing higher and professional level of education of parents. The increase of the number of students originating from dental and medical doctors’ families and the social features of these families, the educational and cultural background of the students present the portrait of the profession today and in perspective. Generational and social mobility of dentists is directed toward consolidation of the social status, evidenced by the family continuity in professional choice. The dental profession keeps its social position of well-educated and healthy and wealthy style of life individuals, sharing the basic values of their peers in EU and globally.

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