

Cross-Sectional Study

The Role of Continuous Education in Career Progression and Satisfaction Among Dentists

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ABSTRACT

To determine whether there was a relationship between dentists' intention to pursue postgraduate continuing education (CE) and their job satisfaction, a descriptive cross-sectional study was conducted using an anonymous self-administered questionnaire that was sent out to a random sample of 1427 dentists from 107 settlements in Bulgaria. The survey instrument consisted of 37 items and collected information on participants' satisfaction with their job levels, demographic and workplace characteristics, economic factors, and attitudes toward CPD. Continuing professional development (CPD) involves a variety of distinct activities and is essential for dentists to maintain their skills, knowledge, and professionalism while working. The data was analyzed using standard descriptive statistics, the chi-square test, and Fisher's exact test, with a significance level set at $P < 0.05$. A total of 436 dentists completed the survey (response rate = 30.5%), and dentists who had a higher chance to attend CPD courses ($n = 288$ (66.1%)) showed higher levels of professional satisfaction ($P < 0.05$). The majority of respondents ($n = 388$ (89%)) said that they would be willing to participate in CE; however, there was no significant correlation between this aspect and job satisfaction ($P \geq 0.05$). 20% of respondents said they had taken career pauses ranging from a few months to five or six years. Partial and full satisfaction were higher among dentists without career pauses than among those who did ($P < 0.05$). To increase dentists' interest in professional growth and, eventually, their job happiness, it is strongly recommended to restrict career pauses and provide more possibilities and time for participation in various types of continuing education.

Keywords: Continuing professional development, Postgraduate education, Dentists, Job satisfaction, Professionalism

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Introduction

The “father of humanistic psychology” Abraham Maslow developed his Hierarchy of Needs Theory in 1943. Maslow asserts that human beings have needs that must be met and that these needs will serve as motivators until they are met [1]. A total of five human wants are structured in a hierarchy or so-called pyramid, with the last of them (self-actualization, self-realization, self-improvement) occupying the top of the pyramid [2-4]. Nevertheless, difficulties related to self-improvement, as an inherent and highest component of

people's value system, portray a contrasting picture of the modern dentistry practice [5, 6]. In contrast to the idea that continuous learning is a lifelong process that is filtered through the prism of individual clinical experience and theoretical knowledge, Zillen [7] asserts that the worst error in contemporary dental education is that for many dental practitioners, it ends with university graduation. The author continues by pointing out that this issue cannot be resolved by education alone. Benchmarking dental care as it is and as we wish it to be should be the first step in planning for ongoing education. Therefore, additional aspects

including compensation, state policy, professional satisfaction, and how individual practice is organized should also be taken into account.

The main debate at the moment concerns whether continuing education contributes to or detracts from the broader idea of dental professional satisfaction. Given this hesitancy, it is well known that professional training in a variety of forms benefits dental practice [8, 9]. In an investigation of 122 dental offices in the US state of Washington, Chapko *et al.* [9] documented the benefits of continuing education in dental practice administration. The training's beneficial effects were demonstrated by an increase in both the volume of services rendered and the revenue earned.

The ideal scenario would allow dentists to pursue any kind of training they want [10, 11], but the reality is far from that, as several substantial obstacles in the way of obtaining the desired post-graduate qualification. Leggate and Russell [12] detailed the attitudes and trends of dentists in Scotland about their continuing professional development. A survey of 1569 dentists was carried out, asking them about their demographics, current working conditions, job satisfaction, continuing education, and future career plans. The findings indicated that over ninety percent of respondents participated in professional training, but over fifty percent of respondents did not believe that additional training would enhance their prospects for future employment. The most commonly reported obstacles to furthering education were the hectic working time and the expensive, ineffective courses; more than one-third of dentists under 30 said they planned to specialize, but this percentage fell to 12% for those over 30 [13, 14]. Additionally, very few dentists planned to take a career break [12].

This is an additional issue concerning training opportunities, particularly for professionals who have taken many employment gaps [15, 16]. Future attempts to address the educational needs of various age groups, with an emphasis on part-time workers and those who took a career hiatus, were suggested by the research mentioned above. Similar findings on the subject were also linked to several other research, particularly those involving female dentists [17-20]. Accordingly, steps to shorten the duration of career disruptions, steps to facilitate reintegration into the workforce, and ongoing postgraduate training are appropriate recommendations for raising satisfaction levels with the tasks completed [17].

Only a small number of new papers on these topics were discovered in the preceding years [21-23]. Given the foregoing and the notable vacuum in the present, developing literature in this area, the purpose of this

paper was to determine whether dentists' plans to pursue postgraduate education were related to their job satisfaction levels. We looked at three aspects of dentists' continuing education that we believe influence their professional development: career breaks, postgraduate training ambition, and study opportunities and time.

Materials and Methods

The current study was a descriptive cross-sectional investigation using quantitative and qualitative data collection research methods. An anonymous self-administered questionnaire was mailed to a total of 1427 dentists from 107 settlements in Bulgaria. The survey instrument consisted of 37 items and gathered data on respondents' levels of job satisfaction, demographic and workplace characteristics, motivation, economic factors, and attitudes toward continuing professional development. A random sampling technique was used to reach the study participants. All dentists who were members of the Bulgarian Dental Association (BDA) and voluntarily agreed to take part in the survey were included in the sample. Having at least 1 year of work experience was an additional inclusion criterion. Therefore, newly graduated dentists were excluded from the present study. The latter was approved by the Committee for Ethics of Scientific Research to the Medical University-Sofia (CESRMUS) and was in full accordance with the ethical principles of the WMA Helsinki Declaration of 1975, as revised in 2013. Before completing the questions, the dentists were briefly explained the purpose of the survey, the time involved, the assessment of minimal risk, and contact information regarding further queries. Confidentiality was ensured and no personal identifying or sensitive data was gathered. In addition, respondents were offered no incentives for their participation. The survey was anonymous and voluntary, and consequently, duly completed and returned questionnaires were considered as written implied consent to taking part in the study.

The questionnaire mentioned above contained several groups of questions about 1) dentists' socio-demographic characteristics – age, gender, work experience, and dental practice location; 2) motivation for choosing dentistry as a career; 3) working conditions (ownership of the dental office, dental equipment, and furniture, availability of auxiliary staff, planning, and duration of working hours, type of clinical activities performed, the possibility of consultation with a specialist, administrative activities (document workflow, dental practice management,

financial planning, etc.), communications, and sources of stress; 4) professional development (willingness for postgraduate training, opportunities and time for continuing education, and career breaks); 5) self-assessed level of income; 6) other activities outside the dental practice (free time and hobbies); 7) career plans and retirement intentions; and 8) job satisfaction (main sources and level of satisfaction, realization of expectations, readiness to choose the same profession again). Dentists' career satisfaction was assessed on a 3-point scale-completely satisfied, partly satisfied, and dissatisfied. Considering the aim of the current paper, the discussion will be focused on the associations of dentists' attitudes towards continuing education with the level of their professional satisfaction.

IBM SPSS Statistics 25.0 was used to analyze the data obtained. Standard descriptive statistics (frequencies and percentages) and graphical analysis were used to present the basic outcomes of the research. To search for significant associations, alternative analysis, the chi-square test, and Fisher's exact test were applied. The significance level was set at $P < 0.05$.

Results and Discussion

Demographic characteristics of the sample

The survey received responses from 436 dentists in total (30.5% response rate). Of these, 190 (43.6%) were men, and nearly two-thirds ($n = 280$ (64.2%)) were under 45. Dentists with less than 10 years of experience made up the biggest relative share (34.9%), followed by those with 11–20 years (27.5%). The majority of those surveyed worked as dentists in the nation's capital or larger cities. **Table 1** provides all demographic information.

Table 1. Demographics of the study population ($n = 436$)

Variables	No.	%	Sp
Age (years)			
< 35	144	33.0	2.17
36-45	136	31.2	2.15
46-55	88	20.2	1.56
> 56	68	15.6	1.43
Gender			
Male	190	43.6	2.37
Female	246	56.4	1.63
Work experience (years)			
< 10	152	34.9	2.28
11 – 20	120	27.5	2.14

21-30	88	20.2	1.92
> 31	76	17.4	1.82
Dental practice location			
Capital city (center)	80	18.35	1.85
Capital city (residential area)	52	11.93	1.55
City	190	43.58	2.37
Town	92	21.10	1.95
Village	22	5.05	1.05
Total	436	100.00	

Professional development and job satisfaction levels

288 (66.1%) of the poll respondents said they had the time and opportunity to pursue professional growth, while slightly over one-third ($n = 148$ (33.9%)) said they did not. The relative percentage of total professional satisfaction was higher among dentists who had time and opportunity for professional development than among those who did not, where professional discontent predominated. Job satisfaction and the availability of professional development opportunities and time were statistically significantly correlated ($P < 0.05$) (**Table 2**). Only 48 respondents (11%) gave a negative response to the question, while 388 respondents (89%) indicated that they would be eager to pursue post-graduate continuing education (75% of the latter having more than 20 years of work experience). Nevertheless, data analysis revealed no significant correlation ($P \geq 0.05$) between the desire for postgraduate study and professional satisfaction (**Table 2**).

About 20% of respondents reported a break in their career, however many didn't (**Figure 1**). 82 dentists reported the reason and duration of their career breaks, with the most common reasons being pregnancy, childbirth, and raising a child (children) ($n = 62$ (75.61%)), but other reasons included training ($n = 6$ (7.32%)), health reasons ($n = 8$ (9.76%)), work abroad ($n = 4$ (4.88%)), and other reasons ($n = 2$ (2.44%)) (**Figure 2**). Job satisfaction was significantly correlated with career breaks ($P < 0.05$), and dentists who did not have career interruptions reported greater levels of partial and full satisfaction than those who did (**Table 2**).

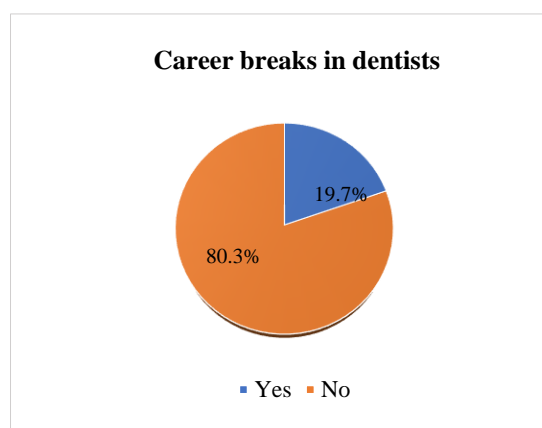


Figure 1. Frequency distribution of dentists according to the presence of career breaks (n = 436)

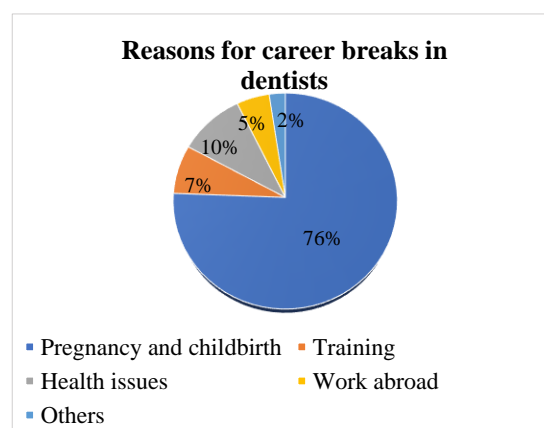


Figure 2. Dentists' frequency distribution based on the most frequent causes of career interruption (n = 82)

Table 2. Frequency distribution of dentists by career satisfaction, CPD, and career breaks

	Level of job satisfaction			Total (n (%))
	Dissatisfied (n (%))	Partly satisfied (n (%))	Satisfied (n (%))	
Opportunity and time for professional development				
No	10 (62.5%) ^a	60 (46.2%) ^a	78 (26.9%) ^b	148 (33.9%)
Yes	6 (37.5%) ^a	70 (53.8%) ^a	212 (73.1%) ^b	288 (66.1%)
Willingness for continuing education				
No	2 (12.5%) ^a	16 (12.3%) ^a	30 (10.3%) ^a	48 (11.0%)
Yes	14 (87.5%) ^a	114 (87.7%) ^a	260 (89.7%) ^a	388 (89.0%)
Career breaks				
No	10 (62.5%) ^a	112 (86.2%) ^{bc}	228 (78.6%) ^{ac}	350 (80.3%)
Yes	6 (37.5%) ^a	18 (13.8%) ^{bc}	62 (21.4%) ^{ac}	86 (19.7%)
Total (n (%))	16 (100.0%)	130 (100.0%)	290 (100.0%)	436 (100.0%)

Note: the same letters on the horizontal lines mean the absence of a statistically significant difference, and the different letters – the presence of such ($P < 0.05$)

The purpose of this research was to investigate the association between dentists' career satisfaction levels and their willingness and opportunity for ongoing professional development (CPD). Since learning is a lifelong process, it is widely accepted that continuing professional education is a crucial component of the workplace and necessary for dental professionals to preserve and advance their clinical expertise and knowledge [21-23]. More importantly, taking part in continuing education activities will help improve the quality of dental services rendered, patient happiness, dentists' self-confidence, and job satisfaction—all of which are important components of the dental profession's professionalism framework [21, 23-26] (Figure 3).

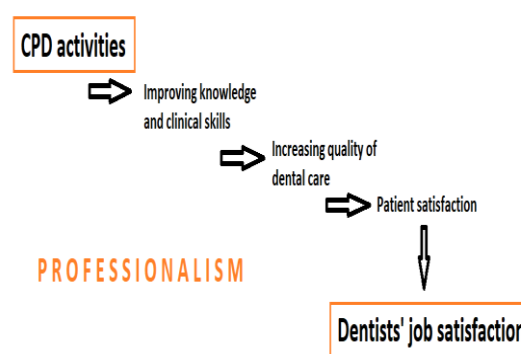


Figure 3. General framework—CPD, job satisfaction, and professionalism

Research has repeatedly proposed a link between dental professional satisfaction and continuing education (CE) activities, which are expressed in various forms of postgraduate training, such as reading professional journals, attending qualification courses,

and taking retraining courses [27]. Our findings showed that while 90% of study participants wanted to participate in CE activities, only 2/3 (66%) had the time and opportunity to do so and that the most common barriers preventing dentists from regularly engaging in CPD activities were lack of time and cost [21, 23]. Furthermore, we discovered that the lack of desire for professional development rose along with the amount of job experience. In contrast to these findings, mid- and late-career dentists had much higher CPD involvement than early-career dentists, according to Bailey *et al.* [22]. However, the current study did not find a significant correlation between dentists' willingness to continue their education and their degree of job satisfaction. Only practitioners who had the time and opportunity to participate in CPD showed a greater level of overall professional satisfaction.

Additionally, a statistically significant association between professional happiness and career pauses was discovered. According to the developing research, 20% of dentists, who were primarily women, experienced career interruptions as a result of childbearing and childrearing. This finding emphasizes the detrimental effects of career breaks on professional growth and satisfaction [18-20, 28]. The results of this study demonstrated that dentists with no career disruptions had better degrees of both general and partial work satisfaction.

Limitations

Despite its limitations, the current study offers important insights into the relationships between dentists' career satisfaction and CPD intentions. Firstly, the study's cross-sectional design only gave a snapshot of dentists' attitudes and perspectives toward the research issues under investigation; therefore, more longitudinal studies are required to track these questions over time. Secondly, the study's response rate was low (30.5%), and as a result, non-responders may have reduced the study's power. Third, only a small number of factors associated with continuing postgraduate education were studied; given that taking part in CE programs is a complex activity, future studies should concentrate on examining other factors like age, gender, location, dental practice type (group or solo), employment of auxiliary staff, etc.

Conclusion

For dentists, continuing professional training encompasses a wide range of activities and is essential to maintaining their professionalism, expertise, and abilities throughout their careers. The study's findings indicate that dentists who had more time and

opportunities to attend professional development courses expressed greater levels of professional satisfaction than those who did not. Furthermore, there was a strong correlation between career pauses and job happiness; dentists who did not have career interruptions reported better levels of job satisfaction than those who did so on a variety of times. To increase dentists' interest in professional growth and, eventually, their job happiness, it is strongly advised to restrict career pauses and provide more possibilities and time for participation in various types of continuing education.

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References

1. Schwartz S. Coaching for a winning dental team. *J Contemp Dent Pract.* 1999;1(3):55-60. doi:10.5005/jcdp-1-3-55
2. Avramova N, Yaneva K. Job satisfaction. Models of job satisfaction - part I. *Health Policy Manag.* 2011;11(4):73-8. [in Bulgarian]
3. Donnelly JH, Gibson JL, Ivancevich JM. *Fundamentals of management.* 10th ed. Irwin/McGraw hill: Pennsylvania, USA; 1998. 630 p.
4. Daniels TD, Spiker BK, Papa MJ. *Perspectives on organizational communication.* 4th ed. McGraw-Hill; 1997. 333 p.
5. Celik I, Keser G, Pekiner F. Knowledge and awareness assessment of dental students about malignant melanoma. *Clin Cancer Investig J.* 2021;10(5):247-53.
6. Muth Lakshmi K, Lakshmi K, Kannan A, Aniyan Y. Evaluation of novel MicroRNA profile-21 and 191 in oral leukoplakia and oral squamous cell carcinoma in comparison with healthy tissues – a cross-sectional study. *Clin Cancer Investig J.* 2021;10(6):275-82.
7. Zillen PA. Continuing education. *Int Dent J.* 1976;26(1).
8. Bynum AB, Irwin CA, Cohen B. Satisfaction with a distance continuing education program for health professionals. *Telemed J E Health.* 2010;16(7):776-86. doi:10.1089/tmj.2010.0005

9. Chapko MK, Milgrom P, Bergner M, Conrad D, Skalabrin N. The effects of continuing education in dental practice management. *J Dent Educ.* 1984;48(12):659-64. doi:10.1002/j.0022-0337.1984.48.12.tb01844.x
10. Dorontsev AV, Vorobyeva NV, Kumantsova ES, Shulgin AM, Sharagin VI, Eremin MV. Functional changes in the body of young men who started regular physical activity. *J Biochem Technol.* 2022;13(1):65-71.
11. Prokhorov IP, Kalmykova OA, Kubatbekov TS, Yuldashbaev YA, Kaledin AP, Savchuk SV. Features of the bone system formation of carcasses of Simmental and crossbreed steers. *J Biochem Technol.* 2021;12(2):6-11.
12. Leggate M, Russell E. Attitudes and trends of primary care dentists to continuing professional development: a report from the Scottish dental practitioners' survey 2000. *Br Dent J.* 2002;193(8):465-9. doi:10.1038/sj.bdj.4801598
13. Alaghemandan H, Ferdosi M, Savabi O, Yarmohammadian MH. Proposing a framework for accreditation of dental clinics in Iran. *J Organ Behav Res.* 2022;7(2):161-70.
14. Üzümlü B, Özkan OS, Çakan S. Moral disengagement, organizational broken window, person-organization fit as an antecedent: machiavellian leadership. *J Organ Behav Res.* 2022;7(1):29-41.
15. Tikhomirova T, Tikhomirov N. Econometric methods for assessing and predicting the results of treatment process in a large medical hospital. *Entomol Appl Sci Lett.* 2021;8(2):1-7.
16. Ibrahim S, Ahmed SA, Ahmed SM, Ahmed SK. Squash and resistance training: relative comparison on speed, explosive power, muscular endurance and flexibility. *Entomol Appl Sci Lett.* 2021;8(2):51-6.
17. Ayers KM, Meldrum A, Thomson WM, Newton JT. The working practices and career satisfaction of dental therapists in New Zealand. *Community Dent Health.* 2007;24(4):257-63.
18. Hartshorne J, Carstens IL, Prins J, Kriel H. Personal and professional characteristics of women dentists in RSA. *J Dent Assoc S Afr.* 1989;44(10):401-5.
19. Murray JJ. Better opportunities for women dentists: a review of the contribution of women dentists to the workforce. *Br Dent J.* 2002;192(4):191-6. doi:10.1038/sj.bdj.4801333
20. Naidoo S. Women in dentistry in South Africa: a survey of their experiences and opinions. *SADJ.* 2005;60(7):284-6.
21. Zamanifar A, Asgari I. Continuing professional development programs for general dentists in Isfahan province, Iran: interests, priorities, and obstacles. *Dent Res J (Isfahan).* 2022;19(1):69.
22. Bailey SE, Bullock AD, Cowpe JG, Thomas HS, Yuen-Lee F, Wood M, et al. An evaluation of CPD activity of dentists in Wales. *Eur J Dent Educ.* 2013;17(1):e49-55. doi:10.1111/j.1600-0579.2012.00757.x
23. Nazir M, Al-Ansari A, Alabdulaziz M, AlNasrallah Y, Alzain M. Reasons for and barriers to attending continuing education activities and priorities for different dental specialties. *Open Access Maced J Med Sci.* 2018;6(9):1716-21. doi:10.3889/oamjms.2018.373
24. Fricker JP, Kiley M, Townsend G, Trevitt C. Professionalism: what is it, why should we have it and how can we achieve it? *Aust Dent J.* 2011;56(1):92-6. doi:10.1111/j.1834-7819.2010.01306.x
25. Brown T, Wassif HS. Understanding continuous professional development participation and choice of mid-career general dental practitioners. *Eur J Dent Educ.* 2017;21(1):46-51. doi:10.1111/eje.12177
26. Al-Ansari A, Nazir MA. Dentists' responses about the effectiveness of continuing education activities. *Eur J Dent Educ.* 2018;22(4):e737-44. doi:10.1111/eje.12388
27. Buck D, Newton T. Continuing professional development amongst dental practitioners in the United Kingdom: how far are we from lifelong learning targets? *Eur J Dent Educ.* 2002;6(1):36-9. doi:10.1046/j.1396-5883.2001.00248.x
28. Oshima K, Kodama T, Ida Y, Miura H. Gender differences in work status during early career of dentists: an analysis of national survey cohort data of 10 years in Japan. *Int J Environ Res Public Health.* 2021;18(5):2335. doi:10.3390/ijerph18052335