



SHORT COMMUNICATION

Gender and Age Differences in Patients' Satisfaction with Dental Care in the Slovak Republic: A Cross-sectional Questionnaire Study

Martin Samohyl¹, Anna Nadazdyova², Martin Hirjak³, Lubica Argalasova¹, Katarina Hirosova¹, Jana Jurkovicova¹

¹Institute of Hygiene, Faculty of Medicine, Comenius University in Bratislava, Slovak Republic.

²Department of Stomatology and Maxillofacial Surgery, Faculty of Medicine, Comenius University in Bratislava, Slovak Republic.

³Department of Public Health, St. Elizabeth's College of Health and Social Sciences, Bratislava, Slovak Republic

Author to whom correspondence should be addressed: Martin Samohyl, Institute of Hygiene, Faculty of Medicine, Comenius University in Bratislava, 24 Spitalska, Bratislava 813 72, Slovak Republic. Phone: +421 944 080 745. E-mail: martin.samohyl@fmed.uniba.sk.

Academic Editors: Alessandro Leite Cavalcanti and Wilton Wilney Nascimento Padilha

Received: 06 November 2017 / Accepted: 10 January 2018 / Published: 16 January 2018

Abstract

Objective: To analyze the level of quality of healthcare satisfaction/dissatisfaction according to gender and age in terms of time spent with the doctor, communication, general satisfaction, interpersonal and financial aspects, technical quality and access/availability/convenience. **Material and Methods:** The standardized "Patient Satisfaction Questionnaire" (n=445) was collected in dental clinics in the Slovak Republic in the period of 2014-2015. The study sample was divided into subgroups according to gender (males: n=236; females: n=209) and age (<35 years: n= 243; ≥36 years: n=202). A scale from 1 (maximum dissatisfaction with quality of healthcare) to 5 (maximum satisfaction with quality of healthcare) was evaluated. **Results:** The highest significant satisfaction level of quality of healthcare (expressed as a mean score) were found in females in the subscale time spent with doctor (<35 y.) (2.90 ± 0.69 ; $p < 0.042$); the lowest satisfaction level was found in females (<35 y.) in the subscale general satisfaction (2.53 ± 0.36 ; $p = n.s.$). Females (≥36y.) were significantly more satisfied with health care quality in the subscale communication than males (2.72 ± 0.34 and 2.62 ± 0.3 , respectively; $p = 0.046$). Males (<35 y.) were significantly less satisfied in the subscale technical quality compared to females (2.54 ± 0.27 and 2.65 ± 0.26 , respectively; $p = 0.002$). **Conclusion:** For the future, it is necessary to specify the next reasons for patients' satisfaction/dissatisfaction with dental care.

Keywords: Patient Satisfaction; Dental Care; Surveys and Questionnaires.

Introduction

The quality of health care is a multidimensional set of criteria [1] including communication and interpersonal aspects, access/availability aspects [2], the technical quality, doctor-patient relationship, time spent with the doctor.

The dental care necessitates careful assessment dental health care quality by patients [3]. Over the past decade, it was found higher member of studies of dental health, which documented quality of health care.

Patient satisfaction is the patient's subjective assessment during health care [4]. For subjective health assessment we use several standardized questionnaires [5]: the Physician–Patient Working Alliance Scale [6], Perceived Utility Scale [7], Treatment Adherence Self-Efficacy Scale [8], Physician Empathy Questionnaire [9], Physician Multicultural Competence Questionnaire [10], Medical Patient Satisfaction Questionnaire [11], Patient Satisfaction Questionnaire PSQ III [12].

There is the need specify patient satisfaction quality and dental health quality with the worldwide increase of dental treatment methods. The aim of the study is to analyze the level of quality of healthcare satisfaction/dissatisfaction according to gender and age in terms of time spent with the doctor, communication, general satisfaction, interpersonal and financial aspects, technical quality and access/availability/convenience.

Material and Methods

The standardized "Patient Satisfaction Questionnaire" (PSQ III.) [12] (n=445) were collected in dental clinics in the Slovak Republic in the period of 2014–2015.

The questioners in the standardized questionnaire was divided into seven subscales: Time Spent with Doctor (2 items), Communication (5 items), General Satisfaction (6 items) Interpersonal Aspect (7 items), Financial Aspect (8 items), Technical Quality (10 items), Access/Availability/Convenience (12 items). A scale from 1 (maximum dissatisfaction with quality of healthcare) to 5 (maximum satisfaction with quality of healthcare) was evaluated.

The study sample was divided into subgroups according to gender (males: n=236; females: n=209) and age (<35 years: n= 243; ≥36 years: n=202).

Data was analyzed in the statistical program SPSS.

Results

Mean level (score) satisfaction with healthcare quality are presented in Table 1. The highest significant satisfaction level of quality of healthcare (expressed as a mean score) were found in females in the subscale time spent with doctor (<35 y.) (2.90 ± 0.69 ; $p < 0.042$); the lowest satisfaction level was found in females (<35 y.) in the subscale general satisfaction (2.53 ± 0.36 ; $p = n.s.$).

Females (≥36y.) were significantly more satisfied with health care quality in the subscale communication than males (2.72 ± 0.34 and 2.62 ± 0.3 , respectively; $p = 0.046$). Males (<35 y.) were

significantly less satisfied in the subscale technical quality in comparison to females (2.54 ± 0.27 and 2.65 ± 0.26 , respectively; $p=0.002$) (Table 1).

A higher, although not significant satisfaction level was found in the oldest females in the subscales time spent with doctor (2.85 ± 0.54 vs. 2.76 ± 0.60), interpersonal aspect (2.75 ± 0.49 vs. 2.68 ± 0.38), technical quality (2.58 ± 0.26 vs. 2.57 ± 0.22) and access/availability/convenience (2.78 ± 0.27 vs. 2.77 ± 0.22) (Table 1).

Table 1. Mean level (score) satisfaction with healthcare quality.

PSQ-50 Scale	No. items	Age [y.]	n	Mean Score (SD)		p-value
				Males (n=236)	Females (n=209)	
Time Spent with Doctor	2	<35	243	2.72 (0.70)	2.90 (0.69)	0.042
		≥36	202	2.76 (0.60)	2.85 (0.54)	0.233
Communication	5	<35	243	2.61 (0.29)	2.61 (0.28)	0.907
		≥36	202	2.62 (0.34)	2.72 (0.34)	0.046
General Satisfaction	6	<35	243	2.54 (0.33)	2.53 (0.36)	0.804
		≥36	202	2.55 (0.38)	2.55 (0.34)	0.902
Interpersonal Aspect	7	<35	243	2.73 (0.37)	2.75 (0.37)	0.749
		≥36	202	2.68 (0.38)	2.75 (0.49)	0.259
Financial Aspect	8	<35	243	2.80 (0.27)	2.81 (0.26)	0.836
		≥36	202	2.80 (0.24)	2.76 (0.27)	0.351
Technical Quality	10	<35	243	2.54 (0.27)	2.65 (0.26)	0.002
		≥36	202	2.57 (0.22)	2.58 (0.26)	0.594
Access/Availability/Convenience	12	<35	243	2.74 (0.31)	2.71 (0.26)	0.367
		≥36	202	2.77 (0.22)	2.78 (0.27)	0.804

SD = Standard Deviation

The low difference in satisfaction was observed in younger patients in the subscale communication and in older patients in the subscale general satisfaction.

Discussion

The subscale time spent with doctor is one of the main determinants of patient satisfaction [13]. In the study by Chander et al. [14] was subscale time spent with doctor higher than our study. This can be partly explained by different patient samples and different among cultures. The interaction of factors constituting subscale time with doctor is different among cultures. In our study, satisfaction in subscale time spent with doctor according to age and gender was different.

Communication skills improve healthcare quality and patient satisfaction [15]. Impact healthcare communication on patient satisfaction is not straight forward. It was found an association among more satisfied patients with healthcare, with the patients who have had a good health outcome, with patients who are generally happy and with who reached a higher satisfaction level in

subscale of the communication [16]. In our study in females (≥ 36) was found the highest satisfied in subscale communication.

General patient satisfaction with healthcare quality is subjective, because patients do not take into account results and the appropriateness of therapy [17]. In subscale general satisfaction was included statements: 1) I am very satisfied with the medical care I receive; 2) There are some things about the medical care I receive that could be better; 3) All things considered, the medical care I receive is excellent; 4) There are things about the medical system I receive my care from that need to be improved; 5) The medical care I have been receiving is just about perfect; 6) I am dissatisfied with some things about the medical care I receive. In our study the mean general satisfaction according to gender and age was lower than in the study by Holikatti et al. [18]. In the study mentioned above dealt was used different patient samples and used other type standardized "Patient Satisfaction Questionnaire" (the short-form questionnaire PSQ-18) with only 3 general satisfaction questions. In subscale general patient satisfaction was found the highest dissatisfaction level with quality of health care.

The both cost containment on healthcare and healthcare quality are controversial topics in health policy. The improvements healthcare quality will require increases in cost and cost reductions could reduce healthcare quality [19].

Many technical quality aspects of healthcare quality should not be evaluated by patients. In many of the villages and small towns in the Slovak Republic is lack of panoramic X-ray devices and patients have to commute long distances.

Conclusion

The dental care providers should give priority to improving of general satisfaction and accessibility. For the future, it is necessary to specify the next reasons for patients' satisfaction/dissatisfaction with dental care.

References

1. Carneiro TV, Ribeiro ILA, Neto EAL, Valença AMG. Access to and satisfaction with oral health care from the perspective of pediatric cancer patients and their caregivers. *Braz Res Pediatr Dent Integr Clin* 2015; 15(1):171-81. doi: 10.4034/PBOCI.2015.151.19.
2. Madruga RCR, Soares RSC, Cardoso AMR, Cavalcanti SDLB, Góes PSA, Cavalcanti AL. Access to oral health services in areas covered by the family health strategy, Paraíba, Brazil. *Pesqui Bras Odontoped Clín Integr* 2017; 17(1):e3006. doi: 10.4034/PBOCI.2017.171.06.
3. Bader JD. Challenges in quality assessment of dental care. *J Am Dent Assoc* 2009; 140(12):1458-64. doi: 10.14219/jada.archive.2009.0084.
4. Sahin B, Yilmaz F, Lee KH. Factors affecting inpatient satisfaction: Structural equation modeling. *J Med Syst* 2007; 31(1):9-16.
5. Fuertes JN, Boylan LS, Fontanella JA. Behavioral indices in medical care outcome: The working alliance, adherence, and related factors. *J Gen Intern Med* 2009; 24(1):80-5. doi: 10.1007/s11606-008-0841-4.
6. Tracey TJ, Kokotovic AM. Factor structure of the Working Alliance Inventory. *Psychol Assess* 1989; 1(3):207-10. doi: 10.1037/1040-3590.1.3.207.

7. DiMatteo MR, Hays RD, Gritz ER, Bastani R, Crane L, Elashoff R, et al. Patient adherence to cancer control regimens: scale development and initial validation. *Psychol Assess* 1993; 5(1):102-12. doi: 10.1037/1040-3590.5.1.102.
8. Catz SL, Kelly JA, Bogart LM, Benotsch EG, McAuliffe TL. Patterns, correlates, and barriers to medication adherence among persons prescribed new treatments for HIV disease. *Health Psychol* 2000; 19(2):124-33.
9. Hojat M, Gonnella JS, Nasca TJ, Mangione S, Veloksi JJ, Magee M. The Jefferson Scale of Physician Empathy: Further psychometric data and differences by gender and specialty at item level. *Acad Med* 2002; 77(10 Suppl):S58-60.
10. LaFromboise TD, Coleman HLK, Hernandez A. Development and factor structure of the Cross-Cultural Counseling Inventory - Revised. *Prof Psychol Res Pr* 1991; 22(5):380-88. doi: 10.1037/0735-7028.22.5.380.
11. Fuertes JN, Mislouack A, Bennett J, Paul L, Gilbert TC, Fontan G, et al. The physician-patient working alliance. *Patient Educ Couns* 2007; 66(1):29-36.
12. Hays RD, Davies RD, Ware JE. Scoring the medical outcomes study patient satisfaction questionnaire: PSQ-III. MOS Memorandum. Santa Monica (CA): Rand Corporation, 1987. Available from: https://www.rand.org/content/dam/rand/www/external/health/surveys_tools/psq/psq3_scoring.pdf. [Accessed 6 November 2017].
13. Ziaei H, Katibeh M, Eskandari A, Mirzadeh M, Rabbanikhah Z, Javadi MA. Determinants of patient satisfaction with ophthalmic services. *BMC Res Notes* 2011; 4:7. doi: 10.1186/1756-0500-4-7.
14. Chander V, Bhardwaj AK, Raina SK, Bansal P, Agnihotri RK. Scoring the medical outcomes among HIV / AIDS patients attending antiretroviral therapy center at Zonal Hospital, Hamirpur, using Patient Satisfaction Questionnaire (PSQ-18). *Indian J Sex Transm Dis* 2011; 32(1):19-22. doi: 10.4103/0253-7184.81249.
15. Fortin AH 6th. Communication skills to improve patient satisfaction and quality of care. *Ethn Dis* 2002; 12(4):S3-58-61.
16. Clever SL, Jin L, Levinson W, Meltzer DO. Does doctor-patient communication affect patient satisfaction with hospital care? Results of an analysis with a novel instrumental variable. *Health Serv Res* 2008; 43(5 Pt 1):1505-1519. doi: 10.1111/j.1475-6773.2008.00849.x.
17. Nguyen Thi PL, Briançon S, Empereur F, Guillemin F. Factors determining inpatient satisfaction with care. *Soc Sci Med* 2002; 54(4):493-504.
18. Holikatti PC, Kar N, Mishra A, Shukla R, Swain SP, Kar S. A study on patient satisfaction with psychiatric services. *Indian J Psychiatry* 2012; 54(4):327-32. doi: 10.4103/0019-5545.104817.
19. Hussey PS, Wertheimer S, Mehrotra A. The association between health care quality and cost: A systematic review. *Ann Intern Med* 2013; 158(1):27-34. doi: 10.7326/0003-4819-158-1-201301010-00006.