

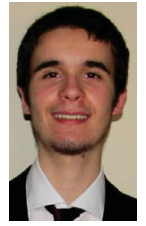
How evaluate Patient Satisfaction with dental health services delivery? Developing an inquiry



Martins, T. ¹, Manso, M. C.², Martins, F.¹, Gavinha, S.¹, Manarte-Monteiro, P.¹
 tiago.jose.c.martins@gmail.com

¹ Department of Medical Sciences, Faculty of Health Sciences, University Fernando Pessoa, Portugal

² Faculty of Health Sciences, University Fernando Pessoa, & CIAGEB-UFP, Porto, Portugal & REQUIMTE, University of Porto, Portugal



Introduction

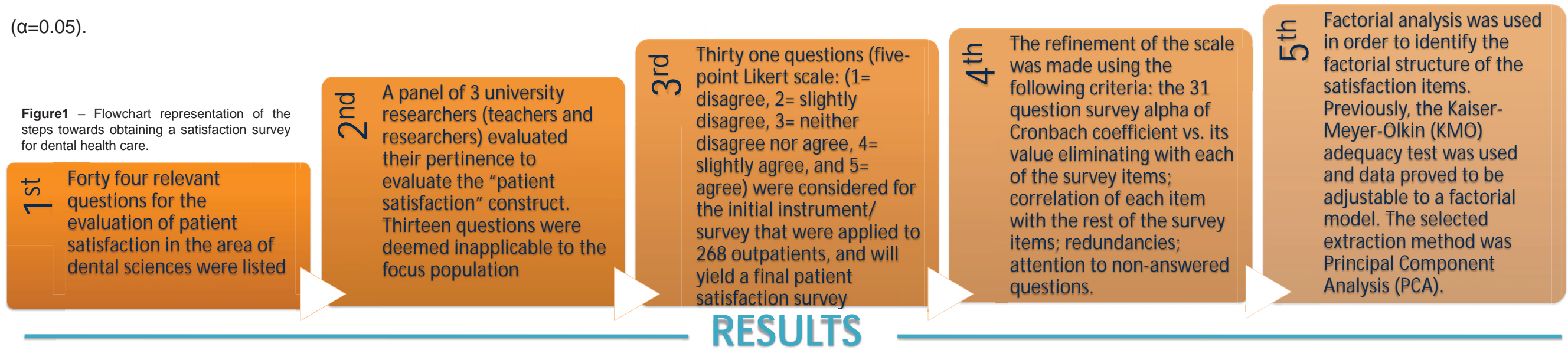
Effective management of patient perceptions/satisfaction regarding dental health/care and services is paramount to obtain it.

Objectives

To measure outpatients' satisfaction with oral health/care delivery, in a University dental school clinic, by means of developing an inquiry

Methods

268 outpatients, both genders, 46.1(±16.3) years, voluntarily attended in FHS-UFP dental school clinic (April-July/2012), answered an inquiry (31 questions), evaluating patient satisfaction level (five-point Likert scale); The inquiry was further reduced to 26 question, and arranged into components by means of Factorial Analysis/PCA. Psychometric analysis (inquiry developed evaluation) was performed by means of studying its reliability and validity. Descriptive/inferential analysis was performed with SPSS© vs.21 (α=0.05).



RESULTS

Table 1 - Retained questions for each component after Oblimin rotation (Principal Component Analysis), mean and std.deviation for each question, total and per component % of total explained variance and reliability coefficients (alpha of Cronbach).

Inquiry questions	Component*					% total=34.795
	1	2	3	4	5	
% of total variance explained	11.776	6.620	5.628	5.459	5.313	global alpha=0.616
Alpha of Cronbach	0.661	0.449	0.345	0.239	0.312	
questions	1	2	3	4	5	Mean (±St.dev)
Easiness in being seen by a doctor dentist	0.353					4.44 (±0.87)
Suitable attendance schedule	0.300					4.46 (±0.87)
Good clinic localization	0.617					4.44 (±0.68)
Fast calls return	0.635					3.96 (±1.24)
Are pleasant and attentive	0.535					4.62 (±0.68)
Know how to clarify my doubts	0.441					4.56 (±0.68)
Waiting room is comfortable	0.536					3.93 (±1.02)
Waiting room is welcoming	0.415					3.80 (±1.00)
Waiting room has activities/magazines/TV to help pass-time while waiting	0.454					4.23 (±0.77)
Dental Professionals are aware about my health problems/medication		0.719				4.53 (±0.77)
Dental Professionals explained the diagnosis and dental treatment clearly		0.741				4.57 (±0.72)
Dental Professionals presented other treatment options		0.494				3.85 (±1.33)
I felt confidence in the dental treatment made		0.355				4.59 (±0.73)
Dental clinic has the necessary equipment for attending/to treat			0.602			4.62 (±0.59)
Medical devices are sterile, there is no risk of cross-infection			0.401			4.57 (±0.82)
I was attended by a dentist by which I created empathy			0.341			3.82 (±1.54)
I'm always attended by the same dental professionals			0.353			2.80 (±1.51)
The invoice discriminates costs in detail			0.527			4.02 (±1.21)
The clinic provides suitable methods for payment			0.418			4.62 (±0.64)
I have not had much time waiting in the waiting room				0.621		4.10 (±1.09)
Waiting time for assessment tests / X-ray was not long				0.247		3.26 (±1.54)
Dental professionals knew how to listen to my complaints				0.495		4.41 (±0.99)
The dental professional explained to me clearly the cost of appointments				0.413		3.82 (±1.47)
The dental professional advised me about my oral health hygiene				0.500		4.44 (±0.95)
All the treatments I have received have solved my main complaints					0.507	4.40 (±0.88)
Dental Professionals have time to talk about complaints/other health problems					0.561	4.61 (±0.78)

*1st Component (1)- Patient Assistance Access and Receptionist Help; 2nd Component (2) - Professionals Quality and Dental Treatment; 3rd Component (3) - Clinical Physical Conditions. Treatment Safety and Procedure Transparency; 4th Component (4) - Patient-Dentist Interaction Interpersonal Aspects; 5th Component (5) - Perception of Solved (Dental) Problem.

Results regarding reliability coefficient (Cronbach's α=0.616), content, and construct validities showed intermediate internal consistency and satisfactory validity. Factorial analysis showed the pertinence of this model (KMO=0.655; Bartlett sphericity test, p<0.001), by means of PCA, indicating the existence of five components (Table 1). The scores obtained for overall satisfaction with dental services ranged from 84 to 130 point (mean values=109.5±8.2; Figure 2).

Table 2 - Correlation (Spearman coef.) of each five components of Patient Satisfaction scale with patient age (years).

Categories of Patient Satisfaction Scale	Patients Age (years)		
	r _s	p-value	n
Component 1 Patient Assistance Access and Receptionist Help	0.189	0.002	268
Component 2 Professionals Quality and Dental Treatment	-0.008	0.898	268
Component 3 Clinical Physical Conditions, Treatment Safety and Procedure Transparency	0.002	0.969	268
Component 4 Patient-Dentist Interaction Interpersonal Aspects	0.022	0.717	268
Component 5 Perception of Solved (Dental) Problem	-0.022	0.720	268

Although a significant positive association was obtained for "patient assistance access and receptionist help" (Table 2), by female outpatients and their age (r_s=0.306, p<0.001), the highest mean satisfaction score were obtained for the components: "perception of solved (dental) problem", followed by "professional's quality and dental treatment" and "patient assistance assess and receptionist help" (Figure 3).

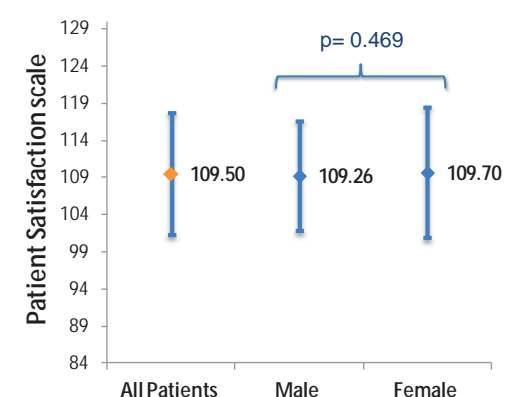


Figure 2 - Overall Patients satisfaction with dental health/care services delivery. Descriptive analysis of the Patient Satisfaction Scale according to gender. Bars represent the standard deviation value.

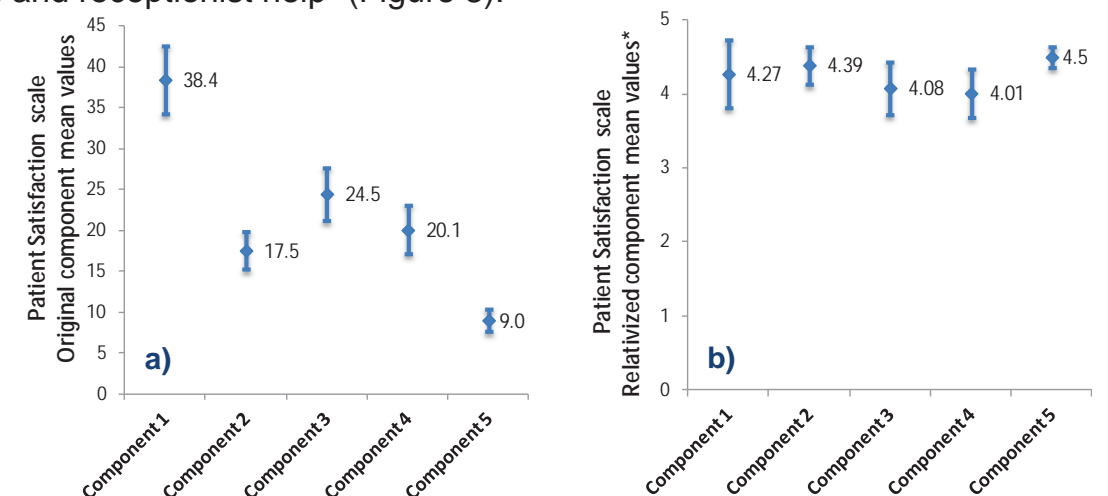


Figure 3 - a) Comparison of absolute values of the Relative five components of Patient Satisfaction scale; b) comparison of each five components of Patient Satisfaction scale (where scale values 1 represent "very low degree of patient satisfaction", 3 represents "intermediate degree of patient satisfaction" and 5 represent "very high degree of patient satisfaction"). * Relativization of the component mean values according to the number of questions of each component.

Conclusions

This study makes available a tool to contribute to management and measuring dental healthcare deliveries.

Clinical Implications

Overall high level of patient satisfaction reflects the responsibility/accountability of dental team's approach towards the target population.

Keywords:

Patient Satisfaction;
 Dental Care;
 Dental School Clinic;
 Scale development;
 Reliability;
 Validity

