

EMPATHY LEVELS AMONG PRACTICING DENTAL SURGEONS — A CROSS-SECTIONAL STUDY

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ABSTRACT

Empathy is the ability to understand and share the feelings of another with intent to help. The aim of this study was to assess empathy levels among the practicing dental surgeons of DOW University of Health and Sciences. Cross-sectional study design was adopted and conducted between August 2015 and October 2015.

The Jefferson Scale of Empathy was used to assess the empathy levels among dental surgeons. A total of 168 dental surgeons took part in the study, 62 were male and 106 female dental surgeons. The score was measured with the help of Likert Scale. The score ranged from a low of 49 to high of 131. Overall male surgeons (98.53 ± 15.38) were more empathetic than females (94.50 ± 13.44). Consultants (107.63 ± 12.40) were more empathetic than others.

Empathy score was higher among consultants showing experience and importance of good relationship with patients, learned with experience.

Key Words: *Empathy, Jefferson Scale of Empathy (JSPE-HPS), Likert scale.*

INTRODUCTION

Careful listening and understanding the patient's problems, builds up patient's confidence, and the patients who trust their health care provider will definitely show better compliance to the treatment. Tichener came up with two Greek terms 'em' and 'pathos' (feeling into).¹ Empathy has its origin from German word 'Einführung'.²

Empathy is a cognitive attribute that mainly involves comprehension of anxiety.³ It is understanding of the patient's situation and reaction to it.⁴ Exhibition of clinical empathy is the major part to functional communication and understanding.⁵ It embraces behaviors, attitudes and values.

Empathy is a behavioral aspect of understanding and communicating with a desire to help. It is a reflective listening to the patients issues.⁶ It can improve compliance and decrease fears resulting in better outcomes. Empathy is one of the fundamentals of good physician patient relationship.⁷ Competence, respect and empathy are the qualities of professionalism.⁸ Empathy has been declared as the second important competency for dentistry.⁹

The aim of the present study is to assess the empathy levels. This will help in knowing the current status of practice in the campus and finding the ways for improvement in the future. Multiple scales are available for the assessment of empathy. Jefferson Scale of Physician Empathy has been used here. It is a valid and reliable instrument for measuring empathy.¹⁰ It consists of a questionnaire consisting of 20 questions answered on a 7 point Likert scale, from 1 (strongly disagree) to 7 (strongly agree). Modification in Jefferson Scale of Empathy-Health Care Provider Student version (JSPE-HPS) is made by replacing the term physician with dental surgeons.

METHODOLOGY

Empathy needs to be distinguished from sympathy, feeling of sorrow and pity for someone's misfortune. Sympathetic approach in the health care system will compromise the diagnosis and treatment of the patients.

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Received for Publication: June 18, 2016
Revised: August 5, 2016
Accepted: August 18, 2016

Current is a cross-sectional study conducted in DOW University of Health Sciences, from August 2015 to October 2015. Non probability convenience sampling technique is used. Participation was voluntary and anonymous. No reward was offered. Participants were dental surgeons who had no objection. Those who refused to participate and the undergraduate students were not included.

Statistical tests applied are PASS v11, using a two sided Coefficient alpha F-test with significance level of 0.05. A sample of 98 subjects each responding to 20 items achieves 80% power to detect the difference between the coefficient alpha under the null hypothesis of 0.70 and the coefficient alpha under the alternative hypothesis of 0.80000.

A sample of 168 practicing Dental Surgeons was taken from DUHS. The sample consisted of four different levels of practicing dental surgeons or qualification, which included; consultants, post graduate trainees, lecturers and house officers.

Jefferson scale of empathy with modifications was used. The scale had 20 questions and 10 negatively worded were reverse scored. The score was made on a 7 point Likert scale. Score ranges from 20-140. Higher score denotes higher empathetic engagement among dental surgeons.¹¹

Data analysis was performed using SPSS version 22 with 0.05 as the level of significance. Descriptive statistics, frequencies, percentages, mean and standard deviations were computed. Independent t-test and one way analysis of variance including post hoc were calculated. Group variances are equal and was checked through Levene's Test. LSD was applied due to unequal sample size in designations. Comparison among males and females normality was checked through Kolmogorov Smirnov test ($n > 50$).

RESULTS

A total of 168 dental surgeons participated in this study. Of the total sample, 62 were male and 106 were female. The mean empathy score of male dental surgeons was found to be more than females. The male dental surgeons score was (98.53 ± 15.38) and females (94.50 ± 13.44). The consultants had the highest mean empathy score (107.63 ± 12.40) On the other hand the lectures had the lowest (91.36 ± 13.57). While the Post Graduate trainees score was (96.48 ± 14.56) and House Officers (93.13 ± 12.33). The consultants are more empathetic in DOW University of Health Sciences.

One way analysis of variance was applied, indicated that all groups do not have the same mean. Multiple comparison test (post hoc) was computed to examine the difference between the designations. Mean differ-

ence was statistically significant for consultants in comparison to all the designations. No statistically significant difference was observed among males and females. Assessment of empathy was not made on actual practicing behaviors.

TABLE 1: DEMOGRAPHIC CHARACTERISTICS OF THE STUDY PARTICIPANTS

Variables	Overall
Gender	
Male	62
Female	106
Designation	
Consultant	22
Post Graduate Trainee	70
Lecturer	30
House officer	46

TABLE 2: OVERALL MEAN SCORES OF JSPE-HPS MEASURES (N=168)

Variables	N	Mean \pm SD	Minimum - Maximum
Gender			
Male	62	98.53 ± 15.38	49-128
Female	106	94.50 ± 13.44	72-131
Designation			
Consultant	22	107.36 ± 12.40	78-128
Post Graduate Trainee	70	96.18 ± 14.56	71-131
Lecturer	30	91.36 ± 13.57	49-114
House Officer	46	93.13 ± 12.33	74-126

TABLE 3: POST HOC RESULTS

Designation		Mean difference	P-value (Sig.)
Consultant	P.G	11.45	0.001*
Consultant	Lecturer	16.26	0.000*
Consultant	House Officer	14.50	0.000*
P.G	Lecturer	4.81	0.105
P.G	House Officer	3.05	0.236
House Officer	Lecturer	1.76	0.580

*The mean difference is significant at the 0.05 level.

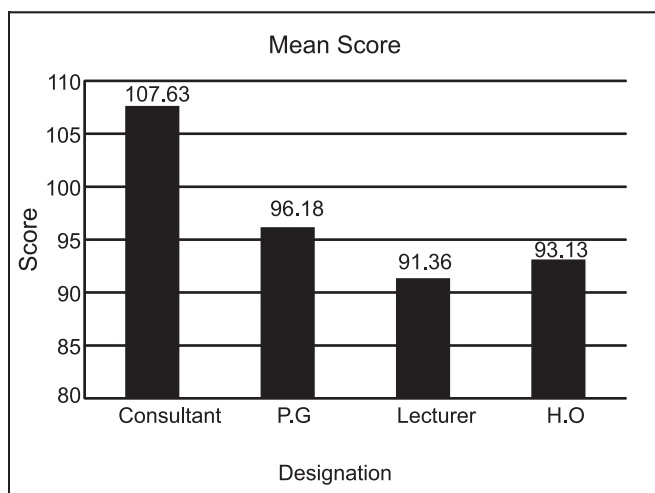


Fig 1: Mean empathy score by designation of the dental surgeons in DOW University.

DISCUSSION

Empathetic level tends to decrease among the dental school students during course time.¹² It has been proved by many studies that empathetic behavior teaching should be made a part of the curriculum throughout the training at dental schools.

Various studies have been conducted around the globe to assess empathy and to find out the ways towards improvement. Majority of the studies agreed on continuous learning in health care set up. Beattie et al in their study evaluating changes in empathy levels among first year dental students, before and after taking the behavioral science course, found out a significant increase in empathy between pre and post course score.¹³ Barry Schwartz et al conducted a pre and post intervention survey among dental students. They added patient's videos sharing their experiences, to a lecture course to teach empathy to students. They came up with significant increase among the respondents and concluded that their intervention in teaching empathy raised the awareness.¹⁴

In the present study consultants had the highest score. Consultants have better qualification and a good experience of dealing patients that might have helped them in learning empathetic behavior and attained highest score. Jeffery J. Sherman et al suggests that training in the interpersonal skills crafted to enhance the dentist-patient relationship should continue throughout the dental schooling.⁵ He observed higher empathetic approach among first year students as

compared to the rest. On the contrary, Muneer Gohar Babar et al reported fourth year students to be more empathetic than other undergraduate years, with the lowest empathetic level in their final year.²

CONCLUSION

Reflective listening always helps, especially in dentistry it builds the patients confidence and make them comfortable with the operator. Incredible changes in treatment outcomes can be observed with empathetic behavior.

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CONTRIBUTIONS BY AUTHORS

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| 2 Nadya Sultan Ali: | Designing of study, Critical Revision. |
| 3 Ather Akber: | Literature Review, Discussion. |
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