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Research Article

**A COMPARATIVE STUDY ON THE SERVICES OF THE
OPERATIVE DENTISTRY PROVIDED BY TEACHING AND
NON-TEACHING DENTISTS**¹Sarah Shah, ²Komal Jahan Zafeer, ¹Muhammad Shehroze Khan¹Allied Hospital Faisalabad²Dow University of Health Science**Abstract:**

Objective: The aim of this study was to find out the performances of the operative section of the dental department by instructional against non-instructional/training dentists in Faisalabad along with a comparison of dental material and methodology selection by the dentist of both the categories.

Methodology: The design of the research was cross-sectional performed at Dental Departments of Allied Hospital Faisalabad and chosen private dental clinic on variant locations of Faisalabad. The total number of dental patients enrolled for the research was seventy-one and ninety-seven in teaching as well as non-teaching category respectively. Researcher performed stratified casual specimen for research. Concerning data was achieved by utilizing self-managed and arranged questionnaire. Questionnaires consist of ten questions. Researcher utilized chi-square test for assessing differences of services design in the both categories along with application of Kappa static, to find out the authentication of facts collected for the research.

Results: the ratio of response in teaching category was almost ninety-five percent (seventy-one out of seventy-five) whereas, in non-teaching category, it was forty-four percent (ninety-seven out two hundred and twenty). The authenticity of the collected facts achieved in this research is accounted as best (the value of Kappa is 0.53 to 0.72). There are expressive variations in between the dual categories concerning to selection of indemnity for the cavity. The selection concerning to utilization of bleaching elements for whitening of teeth, retraction cords, porcelain veneers, rubber dams, gold crowns and inlay- on lay preparedness is expressively changed in both the categories. The entire of these performances are given by a large number of teaching dentists against the private clinicians.

Conclusions: The findings of our research are that there is statically expressive variation in the accomplishment, choice of dental material and design of dental performances given by the teaching dentist's category against the private clinician's category.

Key Words: Potency, Approximately Million, Glass Ionomers, Self-Managed, Expressive Variations, Retraction Cords.

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INTRODUCTION:

However huge numbers of non-public dental care units are established by private clinicians but still not able to fulfil the requirements of the population. Up to little bit domain, the requirement of dental facilities is comparatively fulfil by academic dental centres. The academic exercise/practice is carried out by undergraduates as well as city postgraduate establishment. It is expressing to observe that the numbers of such established units are twelve along with eight hundred dental operators in Faisalabad given dental facilities to approximately millions of individuals on yearly basis. So it could securely be supposed that twice categories are available to provide dental services to peoples in Faisalabad, they are nonpublic dental clinics and colleges of dentistry and hospitals. We predict that the procurement of procedural services of dentistry differs with the kind of clinical arrangement as a dentist in non-public practices is subjected to the stress of time along with cast potency. On other aspects, the dentist of the academy has the supplementary commitment of educating as well as training newly enrolled dentists. That's may hamper their clinical quantum of the standard of service. With the background, it is mandatory to examine the situation of dental care facilities provided in the Faisalabad city.

OBJECTIVE:

The objective of the study was to find out the performances of the operative section of the dental department by instructional against non-instructional/training dentists in Faisalabad along with a comparison of dental material and methodology selection by the dentist of both the categories.

OPERATIONAL DEFINITIONS:

- 1. Teaching dentist:** The dental experts working in training/education establishment as a member of the faculty, associates as well as postgraduate's pupil were marked in the teaching category.
- 2. Private Practitioners:** All those dental experts who are not part of any training/education establishment and given all time to the clinic were catered in this category.
- 3. The pattern of Operative Dentistry service:** Making judgments in clinics, selection of remedial material along with choosing of methodology in dental care.

METHODOLOGY:

The design of the research was cross-sectional carried out at 7 undergraduates along with 5 postgraduates' dental organization and their associated clinical units

and selective private dental clinics on variant locations in Faisalabad.

Inclusion Criteria: Those dentists who are the member of Pakistan Medical & Dental Council (PMDC) and have a minimum single year experience of internship later to graduation and indulge in practising, teaching or both.

Exclusion Criteria: All those dentists who are not practising as well as retired were expelled from research.

Sampling technique: The information concerning to dentists were taken from the head office of the Pakistan Dental Association Karachi division. The numbers of dental experts in the academic establishment are two hundred and fifty along with seven hundred and fifty practitioners in nonpublic setup. Stratified casual specimen for research was performed to choose the research subject, as well as the academic and private clinical setup, are two variant categories.

Sample size: we measured the specimen volume to verify if there are expressive variations in the percentage of dental experts utilizing GIC (Glass ionomers based restorations) for main teeth at five percent eminence level along with the power of eighty percent. We considered (by utilizing our clinical skill and decision) that in teaching/instructional and nonteaching/ non-instructional category, seventy and fifty percent of the dentist may utilize Glass ionomers based restorations. The specimen volume turned out to be sixty-seven percent in teaching/instructional and two hundred and one in the nonteaching/ non-instructional category. To accommodate for rejection, we extended the specimen volume by ten percent to achieve the specimen of seventy-five and two hundred and two cases in teaching as well as non-teaching category.

Data Collection Tool:

Dental material and methodology selection managed and arranged questionnaire concerning priority are utilized in procedural dentistry provision. The questionnaire consists of three parts. Part 1 was concerning to demographic whereas part two of the questionnaire comprised of twenty-eight questions on operational dentistry proceeding.

Data Collection Method: All the questionnaires were manually distributed in a selected area of research. After 2 weeks' duration, a memorial call through mobile was made on condition of nil reply by individuals. The 2nd memorial call was also made to

every individual with the object of obtaining most of the questionnaire. To determine the authenticity of the collected data, we rewrite three questions (ten percent) at the last of research questionnaire.

Data Analysis: we utilized SPSS software for assessment of informative data. Average and SD (standard deviation) of the numeric variants and magnitude for categorical variants from demographic zone were decided. The response variants in research are concerning the selection in dental material and chosen clinical method. These answers are calculated on a formal scale. Absolute specimen test was used to correlate consistent variant just like age factor and working skill of the participant. Chi-square test for assessing differences of services design in both categories along with the application of Kappa static, to find out the authentication of facts collected for the research. Mann-Whitney U test was used to correlate the two categories for usual scale replies. A p value < 0.01 was assumed as statically expressive.

RESULTS:

The enrolled research participants are one hundred and sixty-eight among them seventy-one (41.23%) enrolled participant was associated with teaching category whereas ninety-seven (57.7%) belong to the private sector. Almost thirty out of seventy in teaching category and forty in the non-teaching

category were women's. Percentage of response in teaching category was almost ninety-five percent (seventy-one out of seventy-five) whereas, in the non-teaching category, it was forty-four percent (ninety-seven out two hundred and twenty). Both the categories are so relatable in term of age (p-value = 0.1) and working skill (p-value = 0.07), as well as dentists of both the categories, have statically expressive variations concerning to their approaches in clinical expertise (p = 0.003).

Both the categories explain that mixture in their material of selection for grade 1 and grade 2 recompense in molar as well as in premolars. Whereas dual selected compound in premolars grade 1 arrangement, in grade 5 teaching dentist category preferred compound whereas many participants selected glass ionomer (P value is less than 0.001). Rubber dam utilization was limited as well as both the categories performed limited inlays and onlays. The private clinical dentist was more leaning towards establishing crowns of gold along with dentine pins whereas teaching dentist category declares common application of mixture bonding, retracting cords as well as modern anaesthesia administration (P < 0.001). The authenticity of the data was achieved in our research level in between acceptable to good with sixty-five to seventy-two percent.

Table – I: Comparison of Professional Experience and Age

Variables		Mean	SD	P-Value
Age (Years)	Teaching	31.8	7.4	0.1
	Non-Teaching	33.5	5.7	
	Overall	32.8	6.5	
Professional Experience	Teaching	7.6	7.6	0.07
	Non-Teaching	8.9	5.5	
	Overall	8.9	6.2	

Table – II: Group-Wise Interest and Specialty

Speciality of Interest	Teaching	Practitioners	Total	P-Value
Endodontics & Operative Dentistry	36	28	64	0.003
Orthodontics	10	14	24	
Prosthodontics	9	6	15	
Oral Surgery	6	9	15	
General Dentistry	8	35	43	
Periodontics	2	5	7	
Pediatric Dentistry	0	0	0	
Total	71	97	168	

Table – III: Comparison of Dentists

Clinical Situation		Amalgam	Composite	RMGIC	GIC	Compomer	P-Value
Material of Choice Class I Molars	Teaching	63.4	35.2	1.4	-	-	< 0.001
	Practice	91.8	7.2	1	-	-	
Alternative Choice for Class I Molars	Teaching	28.2	54.9	5.6	8.5	2.8	
	Practice	8.2	89.7	0	2	0	
Material of Choice Class I Premolars	Teaching	28.2	70.4	-	1.4	-	
	Practice	89.7	10.3	-	0	-	
Alternative Choice for Class I Premolars	Teaching	50.7	25.4	4.2	12.7	7	
	Practice	9.3	88.7	0	2.1	0	
Material of Choice Class II Molars	Teaching	74.6	25.4	-	-	-	
	Practice	95.9	4.1	-	-	-	
Alternative Choice for Class II Molars	Teaching	19.7	60.6	11.3	8.5	-	
	Practice	4.1	91.8	0	4.1	-	
Material of Choice Class II Premolars	Teaching	46.5	52.1	-	-	1.4	
	Practice	92.8	6.2	-	-	1	
Alternative Choice for Class II Premolars	Teaching	38	33.8	9.9	14.1	4.2	
	Practice	4.1	90.7	0	4.1	1	
Material of Choice Class V	Teaching	8.5	52.1	22.5	7	9.9	
	Practice	74.2	14.4	5.2	4.1	2.1	
Alternative Choice for Class V	Teaching	9.9	19.7	23.9	35.2	11.3	
	Practice	6.2	67	14.4	7.2	5.2	

Table – IV: Operative Dentistry Comparison

Clinical Activity	Group	Never	Rarely	Selected Patients	Frequent	Mann Whitney P-Value
Rubber Dam	Teaching	23.90	43.70	28.20	4.20	< 0.001
	Practice	63.90	23.70	0.00	12.40	
Inlays and Onlays	Teaching	42.30	18.30	32.40	7.00	
	Practice	49.50	48.50	2.10	0.00	
Gold Crowns	Teaching	90.10	4.20	4.20	1.40	
	Practice	77.30	22.70	0.00	0.00	
Dentine Pins	Teaching	25.40	32.40	38.00	4.20	
	Practice	53.60	42.30	4.10	0.00	
Amalgam Bleeding	Teaching	56.30	18.30	16.90	8.50	
	Practice	90.70	7.20	1.00	1.00	
Topical Anesthesia	Teaching	0.00	19.70	49.30	31.00	
	Practice	38.10	39.20	21.60	1.00	
Retraction Cords	Teaching	18.30	43.70	0.00	38.00	
	Practice	48.50	45.40	1.00	5.20	

Table – V: Comparison of Non-Teaching and Teaching Dentists

Clinical Activity	Group	Time Consuming	Do not Like	Patients Reluctance	Expensive	No Extra Advantage	No Training	Lab is not Good	Chi-Square P-Value
Why I do not Use Rubber Dam?	Teaching	50.70	15.50	8.50	4.20	-	21.10	-	< 0.001
	Practice	42.30	45.40	2.10	1.00	-	9.30	-	
Why I do not Use Inlays and Onlays?	Teaching	19.70	15.50	8.50	-	16.90	-	39.40	
	Practice	42.30	38.10	4.10	-	10.30	-	5.20	
Why I do not Use Gold Crowns?	Teaching	-	18.60	10.00	37.10	12.90	-	21.40	
	Practice	-	17.50	1.00	66.00	10.30	-	5.20	
Why I do not Use Dentine Pins?	Teaching	16.20	23.50	5.90	-	39.70	14.70	-	
	Practice	16.50	59.80	3.10	-	12.40	8.20	-	
Why I do not Use Amalgam Bonding?	Teaching	16.90	18.50	7.70	29.20	-	27.70	-	
	Practice	40.60	39.60	1.00	9.40	-	9.40	-	
Why I do not Use Topical Anesthesia?	Teaching	0.00	24.50	28.60	-	44.90	42.10	-	
	Practice	21.90	41.70	3.10	-	32.30	1.00	-	
Why I do not Use Retraction Cords?	Teaching	6.80	15.90	13.60	-	34.10	29.50	-	
	Practice	6.50	48.90	10.90	-	29.30	4.30	-	

Table – VI: Comparison of Various Crowns

Clinical Situation	Group	All Ceramic Crowns	Porcelain Fused Metal Crown	All Metal Crowns	Gold Crowns	Others	P-Value
Best Gold Standard (Crown Vital Molar)	Teaching	9.90	49.30	23.90	15.50	1.40	0.173
	Practice	18.60	52.60	13.40	15.50	0.00	
Common placement of Crown on Incisors	Teaching	25.40	71.80	2.80	-	-	0.174
	Practice	15.50	83.50	1.00	-	-	
Common placement of Crown on Premolars	Teaching	4.20	94.40	1.40	-	-	0.109
	Practice	0.00	99.00	1.00	-	-	
Common placement of Crown on Molars	Teaching	1.40	80.30	18.30	-	-	0.001
	Practice	0.00	100.00	0.00	-	-	

DISCUSSION:

Although participator of dual categories was uniform in age and working skill however their clinical concern was a huge variant. Whereas the dentist of

both the categories teaching/instructional and nonteaching/no instructional chose common, procedural and endodontic dentistry as their favourite subject of concern. Periodontics, as well as pediatric

dentistry, was identified as the lowest fascinating domain. The possible cause of practitioner not leaning towards these experts is meagerness of training academies and faculty in these domains [1, 2].

There was expressive variation in both research categories for their judgment and for smooth remedial in grade 1 and grade 2 cavity preparedness. Private dentists were mostly bound to amalgam like the selected dental material however chosen composite resins as a substitute. Amalgam consistently the selected restorative for teaching category dentists however their selection of substitute was capacious. In extension to composites, they can choose Glass ionomers based restorations and RMGIC also. Uniformly huge variations were apparent in grade 5 sketch as well. Our research findings were in accord with Burke it is a great period for teaching/instructional and nonteaching/no instructional category dentists to indulge themselves in a forever life engagement of sustaining education to the expected limit of care and daily perform batter standard of dentistry.

CONCLUSIONS:

The findings of our research are that there is statically expressive variation in the accomplishment, choice of dental material and design of dental performances given by the teaching dentist's category against the private clinician's category. The utilization of retraction cords, porcelain veneers, rubber dams, gold crowns and inlay- on lay preparedness is expressively changed in both the categories. Most attention should be given to procedural dentistry at an undergraduate course. A program of revalidating the dental practice authorization on the full filling of demanding numbers of CME should be declared as a compulsory element.

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