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PROSTHODONTIC FACILITIES PROVIDED BY THE DENTAL PRACTITIONERS OF MULTAN

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Abstract:

Objective: *To collect basic data on various prosthetic procedures performed by dentists belonging to various dental specialties in Multan.*

Place and Duration: *Nishtar Institute of Dentistry, Multan and Dental Practitioners of Multan City for Six months duration from 1st November 2019 to 30th April 2020.*

Methodology: *A total of 150 self-designed anonymous questionnaires in English were included. The questionnaire consisted of three parts that included questions about age, gender, seniority and type of dental practice, number of patients treated per month by GDP for different dentures, and questions about perceived denture change. Descriptive statistics and data analysis were performed using the Statistical Package for Social Sciences (SPSS) version 21 (SPSS, Chicago, USA).*

Results: *A large number of respondents (84.6%) reported that the number of complete prostheses delivered to patients increased or remained unchanged. Overall, 81.4% reported activity in the RPD as "increasing" or "stable". In the case of an implant-supported prosthesis, a very small number of respondents reported that the practice is declining.*

Keywords: *dentists, prosthetic referrals, prosthetic reconstructions, Implant supported prosthesis.*

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INTRODUCTION:

The provision of dental services in Pakistan has evolved enormously over the past two decades. Dental practitioners usually treat most patients with the need to replace their teeth, to the point where very few patients are referred to prosthetic specialists[1-2]. These changes were due in part to the lack of an established referral system for general dentists (GDPs) and in part to advances in materials science, dental equipment, clinical techniques and treatment planning. Treatment planning is one of the critical aspects of undergraduate and postgraduate dental education and therefore plays an important role[3-4]. Tooth lessness in Pakistan accounts for an estimated 4.1% of the total population aged 65 and over, with an expected increase to 9.3% by 2030. Since the life expectancy of older people has increased, the need for prosthetic treatment and thus the number of adults has increased over 65 years of age presenting for dental treatment[5-6]. Dental practice statistics in European countries show that private dentists provide more frequent permanent prosthetic procedures compared to public sector dentists. In contrast, dentists in the public health service report a greater number of removable dentures produced. In developing countries, a similar trend in the decline in the number of removable dentures compared to permanent dentures is observed[7]. In addition, it has been estimated that the demand for removable partial and full prostheses may exceed the availability of these prostheses by oral health care professionals in the next 20 years. Provision of a removable prosthesis to elderly patients (over 50 years old) is much more common compared to young adults (20-50 years old). Typically, dentists take into account age, gender, socioeconomic status, educational level, oral health, and patients' concerns and wishes when selecting prosthetic treatment options. Moreover, the extent of the toothless alveolar process, the type of ridge, and the condition of the soft and hard tissue usually determine the type of prosthesis to be made. While there are many factors at stake that can influence the outcome of prosthetic treatment, aesthetics has always been one of the main concerns of patients during prosthetic tooth replacement. Modern treatments, such as implant-supported prostheses, have developed significantly over the past decade[8-9]. Surgical implant placement is relatively easy to perform and may take less than sixty minutes with experienced hands. Implant-supported denture provides better retention and stability, but due to the lack of patient awareness and implant education in Pakistan, this method of treatment is slowly gaining popularity. The main problem for patients who need restorations on implants is the high cost of this treatment method. Basic data on prosthetic practices among practicing dentists in any population is extremely important. Our knowledge from the indexed literature shows that there are no studies describing trends in prosthetic practices among GDP in the Pakistani population[10]. Such data is essential to understand current patterns in GDP practice and to plan common oral hygiene for the population. The aim of the present study was to collect basic data on the different practices of prosthetic treatment among dentists of various dental specialties.

METHODOLOGY:

This cross-sectional study was held in the Nishtar Institute of Dentistry, Multan and data was also collected from Dental Practitioners of Multan City for Six months duration from 1st November 2019 to 30th April 2020. In addition to practitioners of various specialties, GDPs surveyed were graduate dentists and were currently employed, own or work in private practice, must have two years of experience after obtaining a basic dental qualification, and hold a valid dental council license (PMDC). The Ethics Committee approved the study protocol. An anonymous questionnaire in English developed and was used to collect the data. The questionnaire consisted of three parts:

a) The first section had four questions related to age, gender, years of experience and type of dental practice.

b) monthly according to GDP for various dentures. The dental prosthesis included crowns, fixed partial dentures (FPDs), acrylic and cast partial dentures, full dentures and implant-supported crowns, FPDs and dentures.

c) The third part of the questionnaire contained questions on the perceived change in the provision of dental prostheses by GDP over the last year (positive or negative).

A pilot distribution of the questionnaire was carried out among the sixteen currently employed dentists in the hospital to check the validity of the questionnaire. Sampling from tertiary care facilities was performed using a simple randomized sampling method. Of the eleven tertiary hospitals in the city, six were selected at random. Five hundred questionnaires along with a letter containing instructions, justification and study intention were distributed randomly. Descriptive statistics and data analysis were performed using the Statistical Package for Social Sciences (SPSS) version 21 (SPSS, Chicago, USA).

RESULTS:

Fifty forms were rejected because they contained incomplete responses. Of the 500 questionnaires distributed, 150 questionnaires from practicing

dentists were considered eligible. The response rate was 30 percent. Table 1 shows the distribution of the various dental specialties represented by the respondents. Out of the total number of respondents, 15.5% (n = 23) of the respondents belonged only to clinical hospitals, and 84.6% (n = 127) practiced in both places (private practice and a clinical hospital) (Table 2). Table 3 presents dentists' opinions on changes in the provision of patients with full dentures. 82% said that providing patients with full dentures "increases" or "does not change". Respondents' perceptions of changes in the treatment of removable partial dentures in their patients are summarized in Table 4. 81.4% of dentists said that activity in RPD was "increasing" or "not changing". Regarding implant-supported (fixed and removable) dentures, very few respondents (8%) said the service was 'declining', as shown in Table 5.

Table-1: Distribution of Specialties in Dentistry among the respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Prosthodontics	15	10.0	10.0	10.0
	Operative Dentistry	34	22.7	22.7	32.7
	Orthodontics	16	10.7	10.7	43.3
	Oral Surgery	25	16.7	16.7	60.0
	Periodontology	10	6.7	6.7	66.7
	Other	50	33.3	33.3	100.0
	Total	150	100.0	100.0	

Table-2: Practicing Position of the respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Private practice only	0	0	0	0
	Teaching hospital only	23	15.3	15.3	15.3
	Both	127	84.6	84.6	84.6
	Total	150	100.0	100.0	

Table-3: Trends in Complete Denture cases

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Increasing (+ve)	50	33.3	33.3	33.3
	Decreasing (-ve)	27	18.0	18.0	51.3
	Not changing / same	73	48.7	48.7	100.0
	Total	150	100.0	100.0	

Table 4: Trends in Removable partial denture (RPD) cases

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Increasing (+ve)	52	34.7	34.7	34.7
	Decreasing (-ve)	28	18.7	18.7	53.3
	Not changing / same	70	46.7	46.7	100.0
	Total	150	100.0	100.0	

Table 5: Trends in Implant cases

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Increasing (+ve)	38	25.3	25.3	25.3
	Decreasing (-ve)	12	8.0	8.0	33.3
	Not changing / same	100	66.7	66.7	100.0
	Total	150	100.0	100.0	

DISCUSSION:

In the present study, the percentage of questionnaire responses that were returned was low (30%) and the sample size of the current study can be described as limited. Although sampling only covered one city, the hospitals in the current study provided better facilities for data collection. The results of the current study can be called limited as it only looked at dentists in selected areas. However; the sample size could be increased in future research, targeting further localities in the province. It is worth mentioning that in in-patient clinics the preference for a specific type of prosthesis performed by a dentist is limited compared to private clinics. The lack of financial restrictions for some patients allows the dentist to make ideal treatment plans for patients. The results of the current study showed that only 10% of the surveyed dentists belonged to the specialization in dental prosthetics[11]. The remaining doctors belonged to different specialties and performed prosthetic services on their own. Many studies have shown that doctors typically spend most of their time self-medicating adults, refer very few patients to specialist prosthetists, and confirm that many treatments involve permanent restorations. Ellis et al. Conducted a study involving referrals to a reconstruction unit at a general hospital in Europe. Their results indicated that there were few referrals for prosthetic treatment compared to referrals for endodontic and periodontal treatment. One possible explanation for the low number of referrals may be that this study was conducted in the city of Multan, where the number of practicing prosthetic specialists is small compared to specialists in other dental specialties (such as operative dentistry, orthodontics and oral surgery)[12]. Although most dentists do not insert implants, some provide restorations on implants. In this study, the respondents indicated a growing activity in implant dentistry, with only 8% noticing a decrease in the number of removable dentures placed on implants and removable dentures placed on implants. One possible explanation for these discoveries is now the greater emphasis placed on implantology training and ongoing training courses for dentists today by implant companies and institutes. It is worth noting that most of the respondents practiced in academic institutions and hospitals, these people are known to be better associated with training and education related to innovations in dentistry and have greater opportunities to develop clinical skills. Dental implants were introduced about 40 years ago and have been the subject of research in the field of dentistry. Levin P stated that the field of implantology will grow at a moderately low level if certain changes are not made[13]. His findings suggest that only 40% of restorative dentists undertake or participate in implant prosthetic treatment. Growing trends in implant dentistry indicate the need for training and education not only for doctors, but also students in the field of dental implants. Comprehensive knowledge of diagnostics and treatment options in implantology should be a must for undergraduate students. Most of the respondents reported the provision of mobile prosthetics services, and only 18% reported a decrease in the treatment of full dentures, and 18.7% - a decrease in the treatment of RPD[14]. The use of removable dentures in Europe has probably declined due to declining tooth lessness rates, and it seems that having artificial dentures is becoming less socially acceptable. Some studies suggest that the demand for removable dentures (partial and complete) will actually increase over time and is likely to exceed the supply of dentists in the next 20 years[15]. In addition, it is worth mentioning that you can prevent oral disease and minimize tooth loss by establishing innovative public health dental programs for the dental community.

CONCLUSION:

The dentists continue to provide a significant number of removable partial dentures, a movable number of permanent restorations and a limited number of implant-supported dentures. The provision of Implant supported restorations is showing a gradual increase. The practice patterns and trends which were revealed in the current survey surely has potential implications for private dental practitioners, the patients seeking prosthodontic treatment, curriculum of dental schools and dental continuing education programs.

REFERENCES:

1. Khan, Muhammad Farhan, Muneeb Ahmed Lone, Muhammad Waqar Hussain, and Irfan Ahmed Shaikh. "Knowledge and Attitude Regarding Designing Removable Partial Denture Among Interns and Dentist; Dental Schools in Pakistan." *JPDA* 29, no. 02 (2020).
2. Ahmed, Muhammad Adeel, Rizwan Jouhar, Naseer Ahmed, Samira Adnan, Marziya Aftab, Muhammad Sohail Zafar, and Zohaib Khurshid. "Fear and practice modifications among dentists to combat Novel Coronavirus Disease (COVID-19) outbreak." *International journal of environmental research and public health* 17, no. 8 (2020): 2821.
3. Sarfaraz, Shaur, Juzer Shabbir, Muhammad Adeel Mudasser, Zohaib Khurshid, Ahmed Adel A. Al-Quraini, Maria Shakoor Abbasi, Jithendra Ratnayake, and Muhammad Sohail Zafar. "Knowledge and attitude of dental practitioners related to disinfection during the COVID-19

pandemic." In *Healthcare*, vol. 8, no. 3, p. 232. Multidisciplinary Digital Publishing Institute, 2020.
4. Kashif, Mehwash, Aiman Shaikh, Naheed Najmi, and Aqsa Iqbal. "Dental Post Graduate Educational Programmes Preferences in Pakistan and Factors Affecting it: A Cross Sectional Survey Conducted at Karachi, Pakistan." *Pakistan Journal of Medical Research* 58, no. 2 (2019).
5. Khan, Mehwish, and Syed Murtaza Raza Kazmi. "Coincidence of dental midline with facial midline in a sample of Pakistani population." *Journal of the College of Physicians and Surgeons Pakistan* 29, no. 3 (2019): 210.
6. Givony, Shahaf. "Antibiotics self-medication among dental patients from Lithuanian University of Health Sciences Medical Academy Faculty of Odontology department of prosthodontics." (2019).
7. Khan, Farhan Raza. "Community Dentistry or Dental Public Health to be Established As A Distinct Subject Specialty in Pakistan." *JPDA* 29, no. 03 (2020).
8. Assery, Mansour KA. "Knowledge, attitude, and practice regarding prosthodontic rehabilitation and factors affecting the patients visiting private clinics in Riyadh, Saudi Arabia: A cross-sectional study." *Journal of family medicine and primary care* 8, no. 10 (2019): 3362.
9. Alqurashi, Hatim, Zohaib Khurshid, Syed Azeem Ul Yaqin, Syed Rashid Habib, Dinesh Rokaya, and Muhammad Sohail Zafar. "Polyetherketoneketone (PEKK): An emerging biomaterial for oral implants and dental prostheses." *Journal of Advanced Research* (2020).
10. Sarwar, Huma, Hira Akhtar, Meshal Muhammad Naeem, Javeria Ali Khan, Khadija Waraich, Sumaiya Shabbir, Arshad Hasan, and Zohaib Khurshid. "Self-Reported Effectiveness of e-Learning Classes during COVID-19 Pandemic: A Nation-Wide Survey of Pakistani Undergraduate Dentistry Students." *European Journal of Dentistry* (2020).
11. Yousuf, Waqas, Mehmood Hussain, Syed Imran Hasan, Syed Abrar Ali, Syed Murtaza Raza Kazmi, and Sameer Quraeshi. "Knowledge, Attitude and Practice Related to Pursuing Research among Fresh Dental Graduates in Karachi, Pakistan." *Pakistan Journal of Medical Research* 58, no. 4 (2019): 170-175.
12. Parvez, Kamran, and Khurram Parvez. "Oral Complaints of Complete Denture Wearing Elderly Patients And Their Relation With Age & Gender." *JPDA* 29, no. 03 (2020).
13. Hussain, Muhammad Waqar, Khezran Qamar, Bilal Murtaza, Zehra Iqtidar, Zainab Khalid, Gotam Das, and Nazish Zafar. "TELE-DENTISTRY AWARENESS." *Pakistan Oral & Dental Journal* 40, no. 1 (2020): 55-58.
14. Khan, Farhan Raza. "Similarities and differences in specialty training of conservative dentistry and endodontics (India), operative dentistry (Pakistan) and restorative dentistry-endodontics (United Kingdom)." *J Pak Med Assoc* 70 (2019): 320-23.
15. Tariq, Uzma, Waqas Iqbal, Mowaffaq Abdullmomen Al Absi, Madiha Zaigum, Sheba Ramzan, and Shafquat Hussain Khuwaja. "Oral health profile maintenance among patients attending Isra Dental College." *The Professional Medical Journal* 27, no. 05 (2020): 1074-1078.