“A SURVEY TO COMPARE THE SUCCESS AND TRENDS FOLLOWED BETWEEN THE PRIVATE PRACTICE OF PROSTHODONTISTS AND NON-PROSTHODONTISTS IN NORTHERN AND EASTERN STATES OF INDIA.”

Dissertation Submitted to

BABU BANARASI DAS UNIVERSITY LUCKNOW, UTTAR PRADESH

In the partial fulfillment of the requirements for the degree of

MASTER OF DENTAL SURGERY

In

PROSTHODONTICS & CROWN AND BRIDGE

By

DR. KHIROD SONAR

Under the guidance of

DR. GARIMA AGARWAL
(READER)

Department of

PROSTHODONTICS & CROWN AND BRIDGE

BABU BANARASI DAS COLLEGE OF DENTAL SCIENCES, LUCKNOW

(Faculty of Babu Banarasi Das University)

Batch:2021-2024 **Enrollment number: 12103292957**

DECLARATION BY THE CANDIDATE

I hereby declare that this dissertation entitled "**A SURVEY TO COMPARE THE SUCCESS AND TRENDS FOLLOWED BETWEEN THE PRIVATE PRACTICE OF PROSTHODONTISTS AND NON-PROSTHODONTISTS IN NORTHERN AND EASTERN STATES OF INDIA.**" is a bonafide and genuine research work carried out by me under the guidance of **DR. GARIMA AGARWAL** (Reader) Department of Prosthodontics & Crown and Bridge, Babu Banarsi Das College of Dental Sciences, Lucknow, Uttar Pradesh.

Khirod Sonar

Place: Lucknow

DR. KHIROD SONAR

Date: 29.2.24.

CERTIFICATE BY THE GUIDE

This is to certify that the dissertation entitled **"A SURVEY TO COMPARE THE SUCCESS AND TRENDS FOLLOWED BETWEEN THE PRIVATE PRACTICE OF PROSTHODONTISTS AND NON-PROSTHODONTISTS IN NORTHERN AND EASTERN STATES OF INDIA."** is a bonafide work done by **DR. KHIROD SONAR**, under my direct supervision and guidance in partial fulfillment of the requirement for the degree of Master of Dental Surgery (MDS) in Department of Prosthodontics & Crown and Bridge.

Place: Lucknow
Date: 29.2.24.

DR. GARIMA AGARWAL
(READER) Department of
Prosthodontics & Crown and Bridge

CERTIFICATE BY THE CO-GUIDE

This is to certify that the dissertation entitled **"A SURVEY TO COMPARE THE SUCCESS AND TRENDS FOLLOWED BETWEEN THE PRIVATE PRACTICE OF PROSTHODONTISTS AND NON-PROSTHODONTISTS IN NORTHERN AND EASTERN STATES OF INDIA."** is a bonafide work done by **DR. KHIROD SONAR**, under our direct supervision and guidance in partial fulfillment of the requirement for the Degree of Master of Dental Surgery (MDS) in Department of Prosthodontics & Crown and Bridge, Crown & Bridge.

Place: Lucknow
Date: 29.2.24

Dr. Anuradha P.
Prof. & H.O.D. Dept. of PHD

ENDORSEMENT BY THE HEAD OF THE DEPARTMENT

This is to certify that the dissertation entitled **"A SURVEY TO COMPARE THE SUCCESS AND TRENDS FOLLOWED BETWEEN THE PRIVATE PRACTICE OF PROSTHODONTISTS AND NON-PROSTHODONTISTS IN NORTHERN AND EASTERN STATES OF INDIA."** is a bonafide work done by **DR KHIROD SONAR,** under the supervision of **DR. GARIMA AGARWAL (READER)**, Department of Prosthodontics & Crown and Bridge, in partial fulfillment of the requirement for the degree of Master of Dental Surgery (MDS) in Department of Prosthodontics & Crown and Bridge.

Swati Gupta

Place: Lucknow

Date 29.2.24

DR. SWATI GUPTA

Prof. & Head Department of

Prosthodontics & Crown and Bridge

ENDORSEMENT BY THE HEAD OF THE INSTITUTION

This is to certify that the dissertation entitled **"A SURVEY TO COMPARE THE SUCCESS AND TRENDS FOLLOWED BETWEEN THE PRIVATE PRACTICE OF PROSTHODONTISTS AND NON-PROSTHODONTISTS IN NORTHERN AND EASTERN STATES OF INDIA."** is a bonafide work done by **DR KHIROD SONAR,** under the supervision of **DR. GARIMA AGARWAL (READER)**, Department of Prosthodontics & Crown and Bridge, in partial fulfillment of the requirement for the degree of Master of Dental Surgery (MDS) in Department of Prosthodontics & Crown and Bridge.

Place: Lucknow

Date : 29.2.24

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I hereby declare that Babu Banarasi Das University shall have the right to preserve, use and disseminate this dissertation in print or electronic format for academic/ research purposes.

Place: Lucknow

Date: 29.2.24.

Khirod Sonar

DR. KHIROD SONAR

DEDICATED TO

MY FAMILY

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Best Regards

DR. KHIROD SONAR

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LIST OF ABBREVIATIONS

CBCT	Cone -beam Computed tomography system
PFM	Porcelein Fused Metal
FPD	Fixed Partial Denture
RPD	Removable Partial Denture
CD	Complete Denture
CAD-CAM	Computer Aided Design and Cam stands for computer Aided Manufacturing
OPD	Out Patient Department
Et al.	and others
LASER	Light amplification by stimulated emission of radiation
PROM	Patient Reported Outcome Measures

INTRODUCTION

Prosthodontics represents a highly developed body of knowledge and skill that spans multiple disciplines. As stated by Elwood H. Stade[1] in his study that clinical studies appear in the journals to provide information of treatment successes and failures. Little is found, however, that addresses the financial rewards or the typical practice profiles of successful prosthodontic practices. As stated by H.A.Young[2] in his study that successful prosthodontic practice must be predicated on success businesswise and professionally.

This study aims to evaluate and compare the success and trends followed in private practice of prosthodontist versus no prosthodontist (MDS in other dental specialty) in northern and eastern states of India. The purpose of this study is to update and present additional information on the private practice of prosthodontist and non-prosthodontists, related to prosthodontic treatment procedures only. As reported by Nash[3] e al the American College of Prosthodontists sponsored and conducted surveys on the private practice of prosthodontists. Starting in the year 2002, the ACP has sponsored surveys of prosthodontists practicing in the United States. Five surveys have been conducted: in 2002, 2005, 2008, 2011, and 2014. The first four surveys were conducted as mailed surveys, while the 2014 survey was conducted as an Internet survey.

In this study the conditions and characteristics of private practice by prosthodontists and no prosthodontist were reviewed and compared with the help of a google form questionnaire. In their paper Vasantha Raju N[4] et al made an attempt to explore the potential advantages of web based survey tools for data collections and analysis. It also explains how web-based survey can be designed and developed for data collections using Google Forms.

In this study several characteristics of practice were reviewed including age, gender, patient visits and financial conditions including revenues, wages, expenses, and net income from practice etc. Numerous authors have spoke about the adaptation of modern treatment tools and technology in private practice of dentists. As Nishihara et al[5] spoke about zirconia implants, Hala Zakaria[6] et al spoke about CBCT and Lawrence E Brecht[7] et al spoke about intraoral scanners with digital milling

technology etc. In this study a section of questions is included to cover the adaptation of moden treatment protocols.

In the studies by Kabil et al and Omar[8,9] et al they have emphasized about motivating factors influencing dental students in choosing the specialty in post graduate programmers. The data and information from the survey can be used to assist with development of activities to enhance and encourage dentists to consider the specialty of prosthodontics as a profession. In a study by David W.[10] Chambers study it is suggested that dentists are among the top earners in the United States. However, the income stream is not uniform across dentists' careers. Virtually all dentists start their adult lives at an economic disadvantage, compared with their peers in other profession, because they must invest heavily in their careers. In this study, data regarding income and expenses in a private practice of prosthodontists compared to no prosthodontists is collected. It will help in better understanding of success of prosthodontists in private practice and the profession as a whole. It will help to better equip the prosthodontists to face the future challenges in private practice and motivate the dental students to opt prosthodontics as a specialty.

AIMS AND OBJECTIVES:

Aims: To compare the success and trends followed between the private practice of prosthodontists and non-prosthodontists in northern and eastern states of india.

Objectives:

A. To compare the no. of opd patients in practice of prosthodontists and
B. no prosthodontists related to prosthodontic cases with the help of a google form questionnaire survey.
C. To evaluate and compare the adaptation of changing trends in different prosthodontic treatment protocols by a prosthodontists and no prosthodontists.
D. To evaluate and compare the expenditures of dental materials used in a prosthodontic practice of a prosthodontist and no prosthodontists.
E. To evaluate and compare the dental laboratory expenditures in prosthodontic practice of a prosthodontist and no prosthodontists.
F. To evaluate the revenue generated from prosthodontic practice of a prosthodontist and no prosthodontists.
G. To evaluate and compare the net production (income) generated from prosthodontic practice of a prosthodontist and no prosthodontists.

REVIEW OF LITERATURE

1. Young H.A. et al in 1954 Suggested that successful prosthodontic practice must be predicated on success businesswise and professionally. Practice success from the professional or health service point of view could well be measured by the relative rehabilitation of the edentulous patient with the aid of the denture prosthesis. Rehabilitation consists of restoring the patient to normal health and zest for living and to normal social, civic, and business activity which is achieved in practice by (1) revitalizing the personal psyche, (2) remedying the oral and facial deficiencies-functional and physical, and (3) preventing injury, structural loss, or impairments of functions.

2. William R.L. et al in 1976 Stated that limitation of practice implies specialization and the delivery of services by a specialist who has been recognized for his expertise through formal advanced education, experience, and examination. Prosthodontists in limited practice are currently influenced by problems related to patient referrals, third-party payment for services. Limiting clinical practice to prosthodontics today is the need to sufficiently define the parameters of prosthodontic practice in order to provide guidelines for assuring that such practices are limited to the defined specialty.

3. Ronald P.D. et al in 1986 conducted a study where graduates of maxillofacial prosthetic training programs during 1980 through 1984 were surveyed to evaluate the demand for maxillofacial prosthetic services in the United States. The recent change in requirements for advanced education programs in prosthodontics and the increasing numbers of those with additional training in maxillofacial prosthetics suggests that the demand for these services is decreasing. In addition, there appears to be a distinct separation of institutional from private office management of patients. Because of these changes, the concept of maxillofacial prosthetic training and practice as known in the past may

change with an increasing role for the hospital-based dentist in the interim management of these patients.

4. Stanley L.H. et al in 1990 conducted a survey to determine patient satisfaction, in urban private practices, a hospital dental clinic, a neighborhood health center, and a large group practice situated in a shopping center, using a 14- item survey and a 5-point rating scale. Patient satisfaction was related to the following factors in descending order: dentist, staff, efficiency, time-cost, and accessibility. Patients rated private practice most favorably for all factors with the exception of accessibility, which was rated highest for the shopping center practice.

5. Baldwin W.M. et al in 1992 presented a model for evaluating fees for prosthodontic services based on both underlying costs and intangible variables such as the dentist's skill, experience, and quality of care. Concludes about determining the optimum fee for prosthodontic services is difficult. Most methods of determining fees are based on comparisons with other practitioners or with established fee schedules. However, comparisons alone are inadequate because they ignore the practitioner's underlying costs. Since it costs each individual practitioner different amounts to produce dentistry, dental fees should be highly individualized.

6. Lisa A.T. et al in 1994 stated that medical and dental education is undergoing reform all over the world, focused on content and pedagogy, what we teach and how we teach. Some of this reform includes new attitudes and values for the clinician-patient relationship in dentistry; and this information is maximally useful when placed in the context of understanding patient needs from the patient's perspective.

7. D. Brennan et al in 1998 suggested in there study that variations in service provision between geographical locations may be associated with factors such as imbalances in the availability of health services. The aim of this analysis was to examine differences in dental service provision between capital city and non-capital locations. These findings indicate that compared to non-capital locations, capital city patients received care that was more orientated towards prevention and maintenance of teeth, rather than replacement by dentures.

8. Ragna L et al in 2000 conducted a study with there aim to determine patients' criteria for choosing a dentist, and to assess whether criteria differ between patients in university dental clinic and private dental practices. Dentists' psychosocial skills appear to be most important criteria for choosing a dentist. Setting-related differences in criteria seem to be likely but obviously result from differences in socio-demographic characteristics.

9. Kent D. Nash and David L. Pfeifer in 2005 presented a study in which data from a survey of prosthodontists in the US to examine average net earnings of prosthodontists in private practice. It was found that average earnings for prosthodontists in private practice on a primary or secondary basis were estimated to be $215,300 and for prosthodontists who own or share in the ownership of a private practice, $233,920. Reported earnings estimates ranged from $96,160 for nonowners of a private practice and $103,350 for part-time private practitioners to $233,920 for practice owners and $275,170 for prosthodontists in practice with two prosthodontists. The average earnings of prosthodontists who are practice owners were estimated to be 35% higher than the corresponding general practitioners. Average net earnings are often used to examine the current economic health of a profession**. The average net earnings of prosthodontists in private practice exceed the average net income reported by the American Dental Association for all dentists and all general practitioners and they are competitive with earnings among all specialty groups.** This evaluation of the net earnings of prosthodontists shows that prosthodontics offers a competitive career opportunity for the general dentist with a personal desire to pursue advanced dental education in a specialty as a profession.

10. Poul H et al. in 2005 reviewed there article for accessing and financing of dental care for aging populations in selected nations in Europe. Old age per se does not seem to be a major factor in determining the use of dental services. Dentition status, on the other hand, is a major determinant of dental attendance. In addition to perceived need, a variety of social and behavioral factors as well as general health factors have been identified as determinants of dental service use. Frail and functionally dependent elderly have special difficulties in accessing dental care; private dental practitioners are hesitant to provide dental care to these patients. One reason may be that the fee for treating these patients is too low, considering high dental office expenses. Another reason may be problems related to management of medically compromised patients.

11. Vujicic M et al in 2012 conducted a survey, when the U.S. economy was beginning to recover from the most significant contraction since the Great Depression(2006 to 2009), found that the recent decrease in dentists' net income levels was driven primarily by a decrease in utilization of dental care on the part of the population. Moreover, this decline in dental care use, although most pronounced during the economic downturn, appeared to have started before the downturn began. This suggests that more factors than solely the economic recession are affecting changes in dental care utilization patterns.

12. Sreeharsha T et al in 2012 conducted a clinical study where they planned to evaluate and compare the masticatory performance in patients wearing complete dentures with and without the use of soft liners. Significant differences were seen between the masticatory performances of patients wearing complete dentures without and with the use of soft liners. Five percent improvement in masticatory performance was seen in the patients wearing complete dentures when compared to the patients wearing complete dentures without the use of soft liners. Soft liners can be advised in patients having poor mucosal conditions, tissue soreness and in cases of resorbed ridges. Further studies are required to evaluate

the masticatory performance of complete dentures with the use of long-term soft liners considering both the acrylic and silicone soft liners.

13. Chambers D.W. et al in 2014 conducted a study which suggests that dentists are among the top earners in the United States. However, the income stream is not uniform across dentists' careers. Virtually all dentists start their adult lives at an economic disadvantage, compared with their peers, because they must invest heavily in their careers. The educational debt of predental students averaged $36,000 in 2010. This is about 30 percent higher than college loan debt in the general population. Although the typical general dentist is economically well situated, there are reasons for feeling somewhat victimized by circumstances. The past several years have forced a "correction" on the profession. The contraction of incomes has not fallen evenly across all dentists. The top tier continues to flourish. It is certainly the case that the situation would be more easily tolerated if educational and practice debt were to abate, if fewer dentists were being trained, if insurance companies would ease constrictions on coverage and if the economy were to pick up faster.

14. Anupama P.D. et al in 2014 conducted a study which stated that though a material of short term use, tissue conditioning materials has a vast importance in the field of Prosthodontics. It takes care of abused tissues well and recently many research works have been carried out in order to incorporate antifungals into these with high molecular weight which can release antifungals to the tissues at regular intervals but in small quantities. Introduction of Nano particles into the denture base materials is also under study. Denture liner properties are exploited to maximum to relieve symptoms of abused tissues. Proper maintenance of oral hygiene and incorporation of methods to make the surface resistant to staining also should be considered. Bonding is one of the major problems seen with tissue conditioners. Even this problem is addressed by modifying the surface of resin denture base by methods which improve mechanical locking and also increase the surface area. Silicone materials require adhesives for bonding. Tissue conditioners have proven

a very useful material in terms of improving fit of old dentures and restoring tissues to normal health.

15. Jane M et al in 2015 conducted a study which stated the importance of dental practice management in dental education curriculum. It suggested that educational principles of the dental schools should facilitate the student's primary objective of integration into dental practice, while ensuring that students gain essential competency in providing quality holistic patient care. This study showed that students were confident in clinical skills developed but were a bit sceptic about their knowledge on practice management. Students were also keen on increasing their scope of practice by learning additional specialty skills. Increasing employability of graduands is becoming a challenge in an ever increasing and competitive work market; hence curricula should consider integration of clinical skills and knowledge with practice management skills.

16. Mothanna Al Rahabi in 2016 presnted a study to evaluate the current trends and the adoption of new technologies in endodontic treatment by general practitioners in private dental clinics in Almadinah Almunawarah. The results indicated that 100% of the general practitioners did not use any magnification device during root canal treatments; 11% of the respondents used digital X-ray equipment, 12.7% used an electronic apex locator, 38% used NiTi rotary instrumentation in root canal preparations, 100% did not use any adjunctive device for irritant activation and 100% did not use new devices or techniques for root canal obturations. This study provides data regarding the current trends and attitudes of general practitioners in private dental clinics in Al-Madinah Al-Monawarah regarding novel technologies in endodontic treatment and reveals the gap between the new advances in endodontics and clinical practice, as well as the need to improve root canal treatment in private dental practices.

17. Kent D.N. et al in 2016 surveyed with a purpose to periodically obtain data and information about the practice of prosthodontics in the United States focusing on prosthodontists in private practice. The data

and information from the survey have been used by the ACP (American College of Prosthodontists) to assist with development of activities to enhance the specialty of prosthodontics and to encourage dentists to consider the specialty. The data from the survey can also be used to assist the ACP with its career development programs.

18. Vasantha R.N. et al in 2016 presented a paper in which an attempt has been made to explore the potential advantages of web based survey tools for data collections and analysis. It also explains how web-based survey can be designed and developed for data collections using Google Forms. A sketchy comparison in the paper provides snapshots of some of the popular web-based survey tools. The paper concludes by discussing the technological and privacy issues involved in web-based surveys.

19. Dorocka B et al in 2017 conducted a study which stated that tissue conditioners (TCs) are short-term soft liners, formed in situ from a mixture of a polymer powder and a liquid plasticizer. This article reviews the recent advances in the composition, functions, clinical use, gelation process, and physical properties of TCs and their effects on denture bases and oral mucosa. TCs are used to improve the fit and function of an ill-fitting denture. They can also be used to treat abused mucosal tissues underlying ill-fitting acrylic dentures as temporary expedients. TCs are recommended as provisional liners to maintain the fit of removable dentures and to prevent mechanical irritation from the denture. TCs may also be used to rehabilitate cancer patients. The polymer powder, used in the formulation of TCs generally consists of polyethyl methacrylate (PEMA) and the liquid plasticizer is ester-based in ethyl alcohol solution without an acrylic monomer. The plasticizers are low molecular weight aromatic esters. Mixing of the powder and liquid results in polymer chain entanglement and the formation of a coherent gel characterized by viscoelastic behavior appropriate to its intended clinical use. The loss of surface integrity and surface roughness of TCs are regarded as the main problems in the denture bearing oral mucosa conditions resulting in

inflammation of oral mucosa of the denture-bearing area - denture stomatitis. TCs provide an even distribution of masticatory force, accurately modeling itself to the changes which occur during the healing of lesion of substrate and can act therapeutically by incorporating antifungal or antibacterial agents.

20. Varsha M et al in 2017 reviewed with an aim to discuss about lacunae in the areas of Communication skills and Patient psychology teaching in the dental set up in India. Pinpointing such lacunae can help dental colleges and universities to focus on the emphasis of their approaches to teaching about communication skills and psychology of the patient. Identification of future research area in this field is the need of the time for future discovery and progress in this overlooked field.

21. James L.S. et al in 2017 conducted a study with a purpose to survey maxillofacial prosthodontists in the United States to investigate their reasons for pursuing maxillofacial prosthetic training and their practice profiles. This study revealed that personal satisfaction, mentorship, and prosthodontic residency exposure were the reasons most prosthodontists pursued an additional year of maxillofacial prosthetic fellowship. Most were very satisfied with their training and chosen career path and would recommend an additional year of training. The majority of maxillofacial prosthodontists provided maxillofacial prosthetic treatment for approximately one fourth of their practice time. The most common procedures performed were obturators, dental oncology, and mandibular resections.

22. Hala Z et al in 2018 conducted a research where the benefits and limitations of cone beam computed tomography (CBCT) over conventional periapical (PA) radiographs have been studied by many authors since many years ago. The subtle point of negotiation is to understand to what extent the use of CBCT over periapical can have a positive influence on initial radiographic diagnosis in different dental specialties in last recent researches. This article research was achieved by identifying which modality is superior in diagnostic accuracy and

outlining what can affect the efficacy of CBCT and PA radiography in the assessment of early periapical lesions, vertical root fractures and bone defects respectively.

23. Nishiharaa H et al in 2018 systematically reviewed which was aimed to provide an overview of zirconia implants as well as regarding the outcome of the implant-restorative complex in preclinical studies. : Due to its good biocompatibility as well as favorable physical and mechanical properties, zirconia implants are a potential alternative to titanium implants. However, knowledge regarding the implant-restorative complex and related aspects is still immature to recommend its application for daily practice.

24. Alexander C.L. et al in 2018 conducted a study which stated that cosmetic dentistry is a divisive discipline. Within discourses that raise questions of the purpose of the dental profession, cosmetic dentistry is frequently criticized on the basis of it being classified as a non-therapeutic intervention. This article re-evaluates this assertion through examination of ethics of care of the self, healthcare definitions and the social purpose of dentistry, finding the traditional position to be wanting in its conclusions. The slide of dentistry from a healthcare vocation towards being a predominantly business-focused interaction between clinician and consumer conflicts with traditional notions of dentistry as a profession. Whilst it is undeniable that cosmetic dental treatment particularly lends itself to the commercial paradigm, this is not exclusive to this area of professional practice. The cultural basis of dental appearance and the potential of the dental profession to exert coercive pressure upon the public to undergo treatment that is based upon social norms is discussed. This essay concludes that cosmetic dentistry is undeniably part of the professional purpose of 21st Century dentistry.

25. Yousef Alothman and Maryam Saleh Bamasoud2 in 2018 suggested that the clinician preference is the decisive factor for choosing the preparation design. Nonetheless, incisal overlap preparation seems to have the most predictable outcome from all the preparation designs. Porcelain veneers show excellent aesthetic results

and predictable longevity of the treatment, while composite veneers can be considered as a good conservative option, but with less durability.

26. Noha S.K. et al in 2018 conducted a study that aimed to evaluate factors affecting the choice of dentistry as a career as well as the choice of future specialty among senior dental students registered in British University of Egypt (BUE), during the academic year 2016/2017. A questionnaire form was downloaded from the students learning forum (e-learning), the students were then asked to fill up the form and hand it in during class. Results: Out of 200, 181 students responded to the survey, with a response rate of 90.5%. 67% of the students chose dentistry according to their own will, 20.1% due to family pressure, while only 12.8% were due to their high school grades. Fixed prosthodontics was the most favored specialty among the students who aimed for further postgraduate education (23.8%) while endodontics ranked as the second most popular specialty (22.7%) and Oral surgery came in the third rank (11%). There was a statistically significant difference between males and females in choosing fixed prosthodontics as well as oral pathology (p-value $\leq$ 0.001). Conclusion: 67% of our respondents think they were given sufficient inspiration and guidance to decide on future plans, while, 39% of these students were guided by faculty staff members, which constituted the highest influence rather than recommendations from practicing dentists, family members and friends.

27. Per Svanborg in 2019 conducted a study to evaluate the fit of zirconia single crowns and multi-unit FDPs .It was found that the zirconia crowns may be regarded as clinically acceptable, and the accuracy of the manufacturing of zirconia was60 microns for marginal, internal, and total gap. Also, digital impressions seem to be associated with a smaller gap value.

28. Omer H et al in 2019 conducted a study which suggested that many factors may be effective in the career and specialty plans of dentistry students. Graduated students have to make a choice between immediately starting their professional life or choosing a specialty. The increased number of dentists in recent years may have affected the career plans of

Turkish dentistry students. The income factor was significantly more essential for male participants than the female participants in terms of their career preferences. Moreover, the comfort factor was more important for the fifth-year students in terms of their career choice (p=0.013). In their choice of specialty, the patient type factor was more important for the female participants. The factors of income and prestige are the main essential factors in the career and specialty decisions of Turkish dentistry students.

29. Lawrence E.B. et al in 2019 ascertained that the introduction of high-resolution intraoral scanning technology combined with laboratory digital milling capability for dentists' in-office labs has been perhaps the most significant advance in dentistry since the development of endo osseous implants. Rather than invest in conventional chair side milling, the decision by this author's prosthodontic practice to bring in multiple-axis milling technology combined with in-office laboratory support has enabled us to provide exceptionally high-quality restorations within a very tight timeframe, while also ensuring patients receive the personalized level of care they have come to expect.

30. Lakshmana B et al in 2019 conducted a study that aimed to review the applications of Polyether Ether Ketone (PEEK) in dentistry. The increased demand for aesthetics, legislation in some developed countries, few drawbacks with existing materials and clinicians shifting their paradigms towards metal free restorations led space for the metal-free restorations in today’s dental practice. The PEEK material can be considered to be promising in the future as an alternative to metals like Titanium and Zirconium, due to its high-quality mechanical properties. The modified PEEK materials have shown better properties than the unmodified form of PEEK.

31. Edmund Profit in 2020 suggested that he COVID-19 situation has seen the cessation of all non-urgent dental care in the UK. Regular practice activity has come to a virtual standstill and the dental industry has seen a very significant reduction in its provision of products and services. In summary, the dental industry has a critical

role alongside dental professionals to play in the return to greater levels of dental treatment. Te 'new' normal will probably not look like the 'old' normal for a long time, if ever again. Things will change, but not inevitably for the worse in the longer term. Te key to getting dental activity back on track lies in: • Reducing infection risks, to allow the; • Resumption of dental provision, which will require the adoption of; • New approaches, products, technologies and treatments, and inevitably; • Changes to the structure and delivery of NHS/private dentistry.

32. Bradley Munson; Marko Vujicic et al in 2020 suggested that the COVID-19 pandemic brought major disruption to U.S. health care, including dentistry. Their analysis was the first to estimate the impact on dentist net incomes through 2020. For general practitioners, the pandemic led to a 17.9 percent drop in average net income in 2020 compared to 2019. Female dentists and older dentists experienced especially large declines compared to male dentists and younger dentists. The analysis shows that net income reduction was parallel to a drop in hours worked and here, too, the decline in hours worked was largest for female dentists and older dentists. Other HPI data indicate that through May 2021, older dentists have not retired or exited the workforce prematurely due to the pandemic. However, the analysis in this research brief confirms that they certainly curtailed their hours worked more than younger colleagues. . By January 2021, patient volume had recovered to an estimated 80 percent of pre-pandemic levels.

33. Rafael Siqueira1 ,Matthew Galli et al in 2021 presented a study on reduced procedure working time associated with the use of IOS can improve clinical efficiency and the patient experience during impression procedures. Patient-reported outcome measures (PROMs) are an essential component of evidence-based dental practice as they allow the evaluation of therapeutic modalities from the perspective of the patient. IOS is generally preferred by patients over conventional impressions.

34. Mohanty A ,Patro S et al in 2021 suggested that more than 41,000 root canal treatments (RCTs) are performed every day and about 25 RCTs are performed every week by an endodontist. The success rate of endodontic treatment ranges between 86% and 98%; however, the failure rates cannot be ignored which can range up to 20% of the treated cases due to a varied number of reasons including incorrect adoption of working techniques and usage of inappropriate materials.

35 .Bandaranayake and KA Wettasinghe et al in 2021 presented a study to describe the current endodontic practices among the dental surgeons in Sri Lanka, and to determine the association between years of practice and choice of endodontic materials and equipment. Despite newer guidelines and inventions in endodontics, the present survey shows that the usage of technology and protocols related to endodontics among the dental surgeons in Sri Lanka need to be updated. The professional bodies should embark on continuous professional development programs aimed at improving the knowledge and skills of the practitioners. Appropriately structured continuing education programs may be able to encourage and implement the new technologies in their daily practice.

36. Mohammed N.A. et al (2020) conducted a study that aimed to explore the level of happiness, satisfaction with life and psychological well-being among a sample of dental professionals from 21 countries. Happiness is defined as 'the quality or state of being happy or to be satisfied that something is good or right; not anxious'1. Although dentistry is recognized as one of the most prestigious and financially rewarding professions, a dental career is a very stressful and hazardous job which is associated with several physical and mental stressors that ultimately affect a dentist's overall quality of life. The surveyed dentists showed a moderate level of subjective happiness, psychological well-being and satisfaction with life, although with considerable differences across countries.

37. Kasabwala H et al (2020) conducted a study that aimed at evaluating the quality of life and patient satisfaction between denture wearers using conventional followed by BPS dentures. Rapidly providing high - quality complete dentures has become one of the most important aspects of removable denture prosthesis. Novel procedures and methods are being developed in order to provide a better and a much more efficient method of fabricating complete as compared to the techniques conventionally used. Newer methods have a more convenient method of recording impressions, jaw relations and also seem to have better esthetic outcomes. This helps in improving the quality of life of edentulous patients and elevates their satisfaction levels. Almost all the patients

preferred to have the BPS dentures on a long term basis due to their improved retention, esthetics, and chewing efficiency. Within the limitations of the study, the BPS complete dentures had a superior patient satisfaction and better quality of life as compared to conventional denture prosthesis.

38. Aysooda A et al (2021) conducted a study which suggested that guided surgery has the highest level of accuracy and control, in which osteotomy is designed and printed through a digital surgery guide, and depending on the complexity of the case and the patient's anatomy, it has a higher level of value than free surgery. E surgical guide helps the surgeon make the implant surgery more accurate, safer, simpler, at a lower cost, and in less time. In fact, there are patterns that convey information about the position of the tooth to the dentist before the implant is placed.

39. Liaqat S et al (2022) conducted a study which suggested that since the 1960s, lasers have been used in dentistry, and their clinical uses have been evaluated. Many dental procedures involve lasers, which are noted for their simplicity, efficiency, comfort, and superiority over older methods. Lasers have been employed in various therapy approaches, from identifying small caries to planning and treating more severe lesions or cancers.

40. In a study in 2022 by Arunpriyatharsini S and Anandh B it was suggested that advances in digital dentistry have a significant impact in various fields of Prosthodontics ranging from diagnosis to final treatment plan. CAD-CAM technology and its digital flow counterpart have simplified treatment procedures and reduced appointment time when used precisely. Though conventional impression has been the standard of practice for many decades, it is associated with time consumption, patient discomfort, and an undeniable degree of technical and manipulative skills and errors**.**

MATERIALS AND METHODS

STUDY DESIGN:

This study was conducted from department of Prosthodontic & crown and bridge, Babu Banarasi Das College of Dental Sciences, Faizabad road Lucknow (UP), India. It was a internet based survey in which a Google form questionnaire was sent to various dentists in private practice in northern and eastern states of India. Ethical clearance for the dissertation was obtained from the institutional ethical committee [(**IEC code** - 42) BBDU/MDA/42/2024] Dated 27.02.2024

STUDY SAMPLE SIZE:

The study sample size was 300.

Divided into 2 groups. Which were 150 prosthodontists and 150 no prosthodontists.

ELIGIBILITY CRITERIA:

Dentists with a recognized MDS degree.

EXCLUSION CRITERIA:

1. Dentists outside of Northern and Eastern states of India.
2. Dentist not in private practice.
3. Dentist without a MDS degree.

INCLUSION CRITERIA:

1. Dentists in a private practice in northern and eastern states of India.
2. Dentist with recognized MDS degree.

SAMPLING METHOD:

Convenience sampling method was followed.

METHODOLOGY:

The Google form based questionnaire was sent online to selected participants practicing in northern and eastern states of India.

They were asked to fill the consent form provided in the Google form itself by ticking yes option then further proceed to fill the form.

Hence the survey was solely voluntary and privacy of the participant was maintained.

The form contained questions regarding place of practice, age, gender, dental

specialty, years of practice, various prosthodontic treatment procedure with their respective charges viz. number of OPD patients, complete dentures, soft liners, tissue conditioners used in complete dentures, removable partial dentures, fixed partial dentures: PFM and zirconia, implant placement procedures, implant prosthesis, maxillofacial prosthesis, laminates and veneers, cast metal post and core, pre-fabricated post and cores any other modern treatment procedures like BPS dentures, etc.

Questions also included regarding adaptation of advanced treatment tools and devices viz. intraoral scanners, milling units, zirconia abutments, PEEK abutments, dental LASERS etc.

The Google forms were sent to the participants and the responses were received instantly. This method of survey was time saving and very convenient. The data was automatically collected and stored. Further the data was arranged in tables and charts and sent for statistical analysis.

GOOGLE FORM QUESTIONNAIRE

A SURVEY TO COMPARE THE SUCCESS AND TRENDS IN PRIVATE PRACTICE OF DENTISTS IN NORTHERN AND EASTERNSTATES OF INDIA.

A survey on private practice of dentists

1. I understand that my privacy is maintained and my participation is solely voluntary

Mark only one oval.

- yesNo

2. state in which you practice

Mark only one oval.

- uttar pradeshdelhi ncr bihar
- assamodisa
- west bengalmeghalaya nagaland tripura manipur mizoram
- arunachal pradesh
- Other: _____

3. **a.** Age

Mark only one oval.

- 25-34
- 35-44
- 45-54
- 55-64
- 65-74
- above

4. Gender

Mark only one oval.

- male Femaleothers

5. You are a

Mark only one oval.

- Prosthodontist
- Oral Medicine And RadiologistOral Surgeon
- EndodontistOrthodontistPeriodontistPedodontist
- Public Health DentistOral Pathologist Other:

6. Years of practice

Mark only one oval.

- 0-2
- 3-5
- 6-10
- 11-15
- 16-25
- 26-35
- 36-45
- 46-55
- above

Number of procedures performed/delivered per month on an average, with respectivecharges. example:
Question: Complete Dentures/ chargeAnswer: 5/20000

(no. of CD delivered per month is 5, and charge per CD is RS. 20000)

7. no. of consultations or OPD / charge

8. complete dentures / charge

9. use of tissue conditioner in CD / charge

10. use of permanent softliners in CD / charges

11. RPD (removable partial dentures)or CPD / charge

12. FPD, (pfm, units per month) / charge

13. FPD(ziconia, unis per month) / charge

14. overdentures / charge

15. implant placement / charge

16. implant prosthesis/ charge

17. maxillofacial prosthesis/ charge

18. laminates and veneers / charge

19. cast metal post n core / charges

20. prefabricated post n core / charges

21. any other modern treatment procedure performed

22. do yo have a intraoral scanner in your practice

Mark only one oval.

yesNo

23. do you have a Milling Unit in your practice

Mark only one oval.

yesNo

24. do you use zirconia abutments n your practice

Mark only one oval.

yesno

25. do yo use Peek Abutments

Mark only one oval.

yesNo

26. do yo have Laser in your practice

Mark only one oval.

yesno

27. **d)** expenditure related to dental lab charges per month

28. **e)** expenditure on dental materials per month

29. **f)e**xpenditure related to staff salary per month

30. **g)e**xpenditure related to rent per month

31. **h)** expenditure related to service and maintenance of equipment per month

32. other expenses

THANK YOU

SOME SAMPLES OF RESPONSES

A SURVEY TO COMPARE THE SUCCESS AND TRENDS IN PRIVATE PRACTICE OF DENTISTS IN NORTHERN AND EASTERN STATES OF INDIA.

149 responses

Publish analytics

I understand that my privacy is maintained and my participation is solely voluntary

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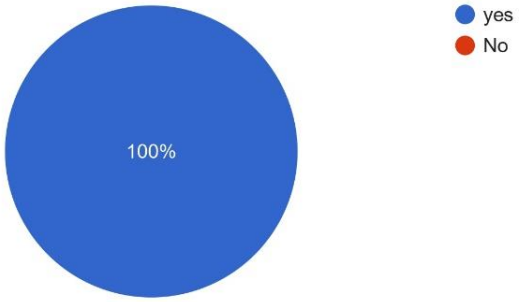
52 responses



state in which you practice

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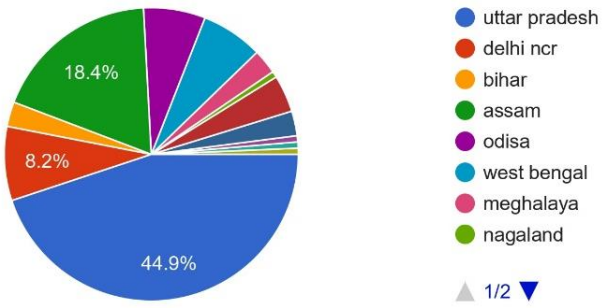
147 responses



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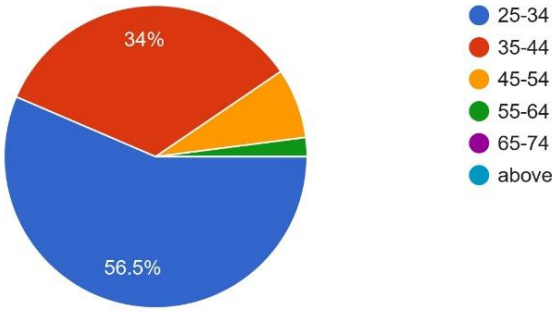
a. Age

147 responses



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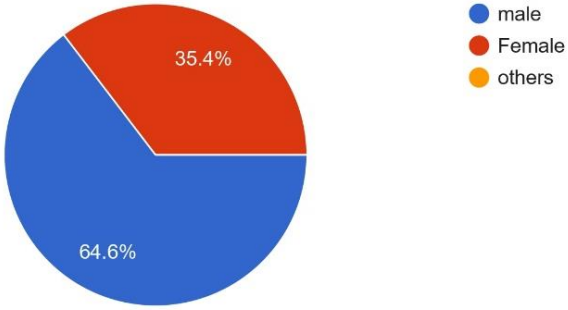
Gender

147 responses



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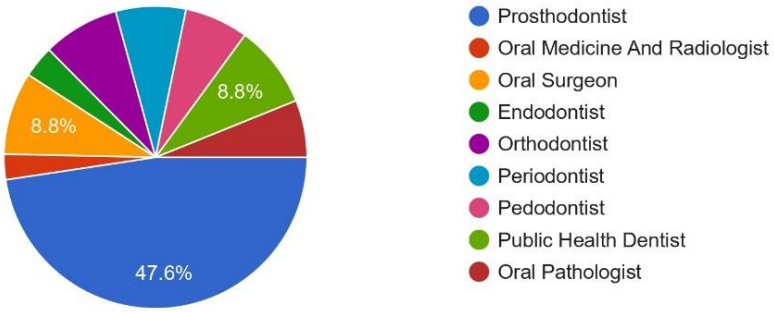
You are a

147 responses



use of tissue conditioner in CD / charge

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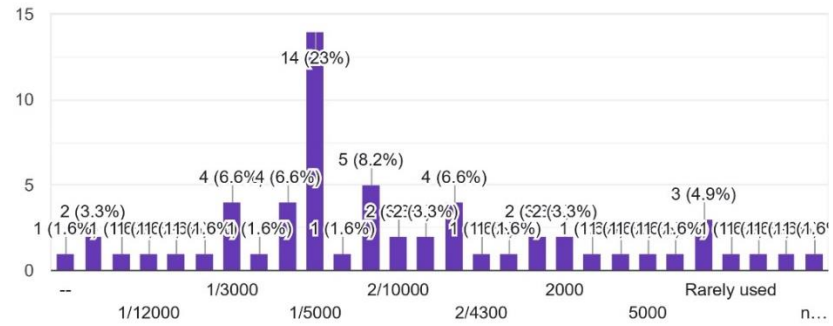
61 responses



use of permanent softliners in CD / charges

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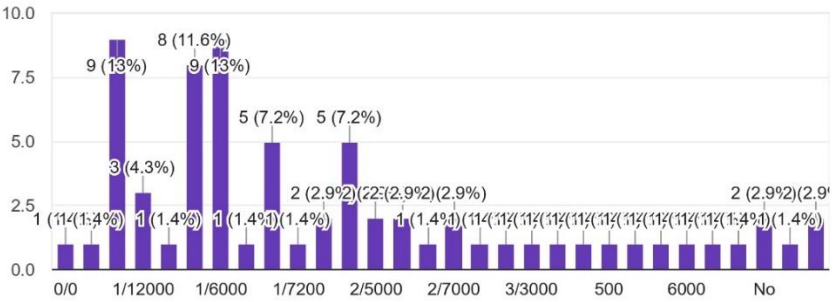
69 responses



15/8500

5/8700

8/9000

13/8500

6/7000

10/1000

4 more responses are hidden

overdentures / charge

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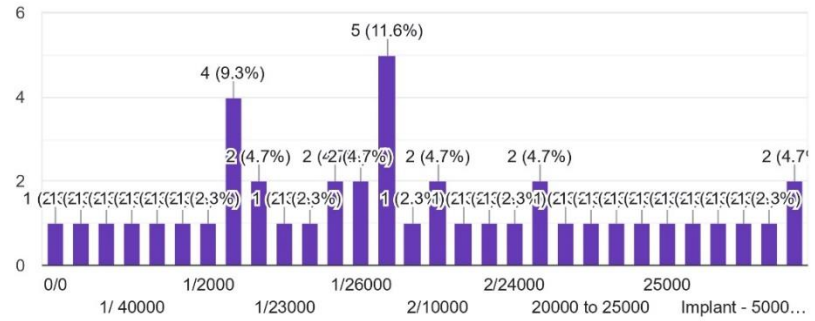
43 responses



implant placement / charge

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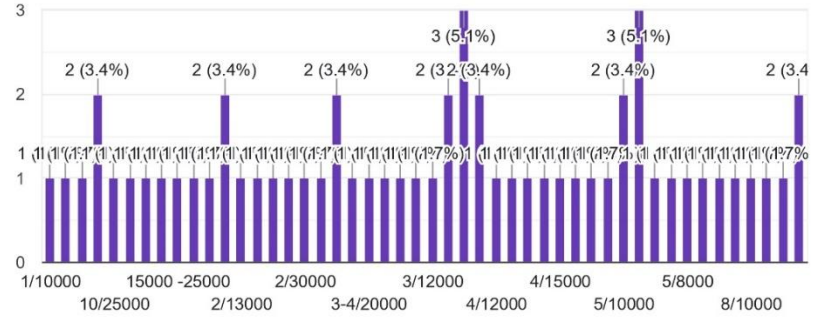
59 responses

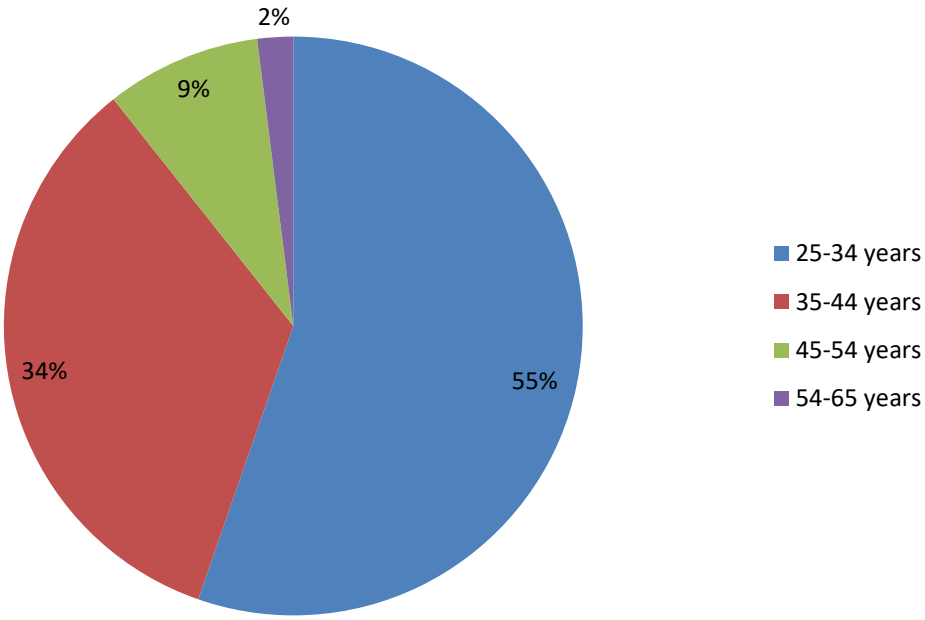


RESULTS

1. AGE DISTRIBUTION OF STUDY SUBJECTS

Based on the age distribution of the study sample 55.33% were of 25-34 years age group, 34% were of 35-44 years age group, 8.67% were of 45-54 years age group and 2% were of 54-65 yeas age group

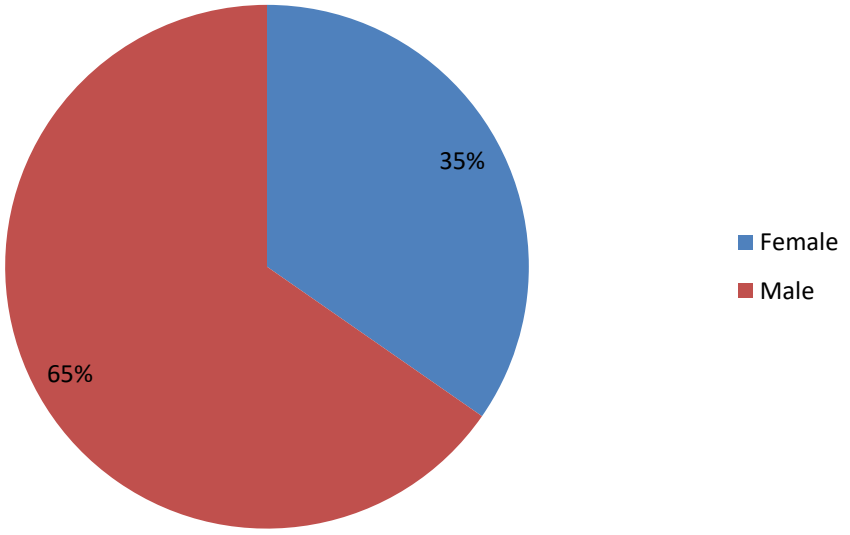
	Frequency	Percent
25-34 years	166	55.33%
35-44 years	102	34%
45-54 years	26	8.67%
54-65 years	6	2%
Total	300	100%



2. GENDER DISTRIBUTION OF STUDY SUBJECTS

Based on the gender distribution of the study subjects 34.67% were the females and 65.33% were the males

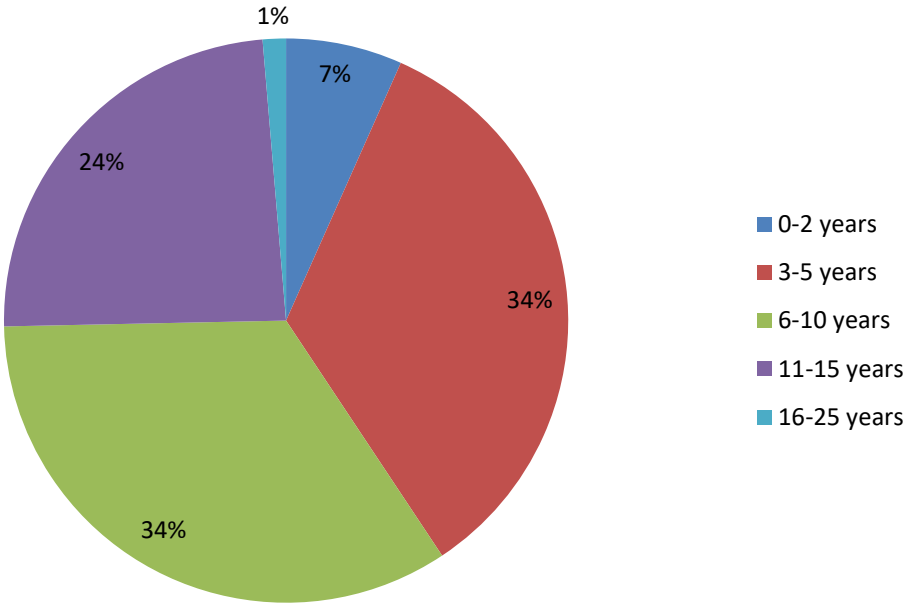
	Frequency	Percent
Female	104	34.67%
Male	196	65.33%
Total	300	100%



3. YEARS OF PRACTICE

Based on the years of practicing dentistry 6.67% were practicing since 0-2 years, 34% were practicing since 3-5 years, 24% were practicing since 11-15 years and 1.33% were practicing since 16-25 years

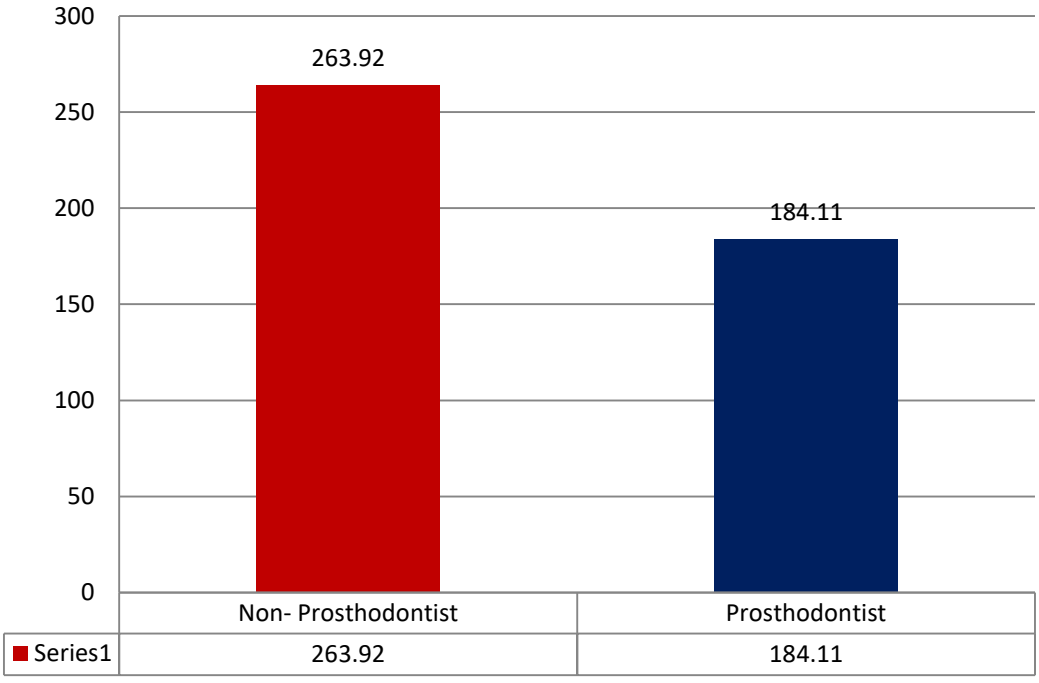
	Frequency	Percent
0-2 years	20	6.67%
3-5 years	102	34%
6-10 years	102	34%
11-15 years	72	24%
16-25 years	4	1.33%



4. INTERGROUP COMPARIOSN OF MEAN NUMBER OF PATIENTS TREATED IN OPD AMONG THE PROSTHODONTISTS AND NON-PR0STHODONTISTS

The mean number of patients in the OPD of Non-Prosthodontist was 263.92 whereas the mean number of patients in the OPD of Prosthodontist dentist was 184.11, The difference in the number of patients treated by the Non- Prosthodontist and Prosthodontist was statistically significant

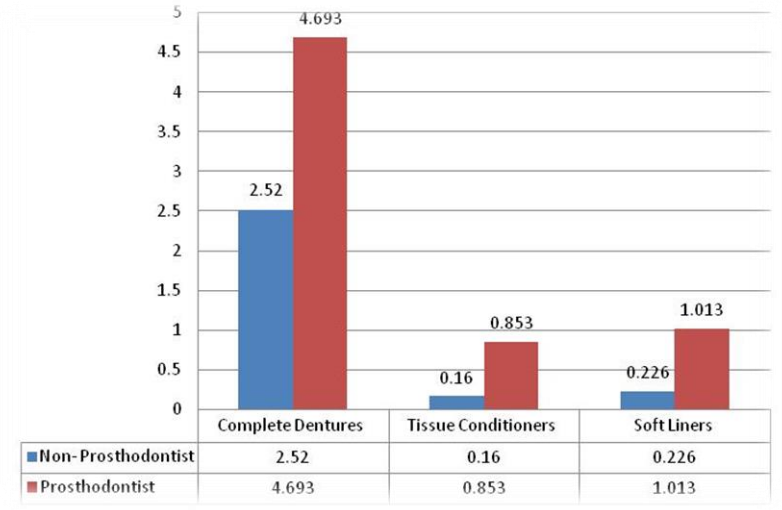
		Mean	SD	Std Error	P value
OPD	Non-Prosthodontist	263.92	289.356	33.412	0.001 (Sig)
	Prosthodontist	184.11	76.951	0.885	



5. INTERGROUP COMAPRIOSN OF MEAN NUMBER OF COMPLTE DENTURES, SOFT LINERS , TISSUE CONDITIONERS , RPD BETWEEN PROSTHOODNTISTS AND NON-PROSTHODONTITS

. The mean number of complete dentures completed by the Non-Prosthodontist was 2.520/month whereas the mean number of dentures delivered by the Prosthodontist was 4.693. The mean number of dentures delivered by Prosthodontsit was significantly higher than the Non-Prosthodontist. The mean number of patients with application of Tissue conditioners and Soft Liners wer 0.160 and 0.226 by the Non-Prosthodontist where as the mean number of patients with application of Tissue conditioners and Soft Liners by the Prosthodontist were 0.853 and 1.013 respectively. The mean number of patients treated for soft liners and Tissue Conditioners was significantly higher for the Prosthodontist as compared to Non-Prosthodontist

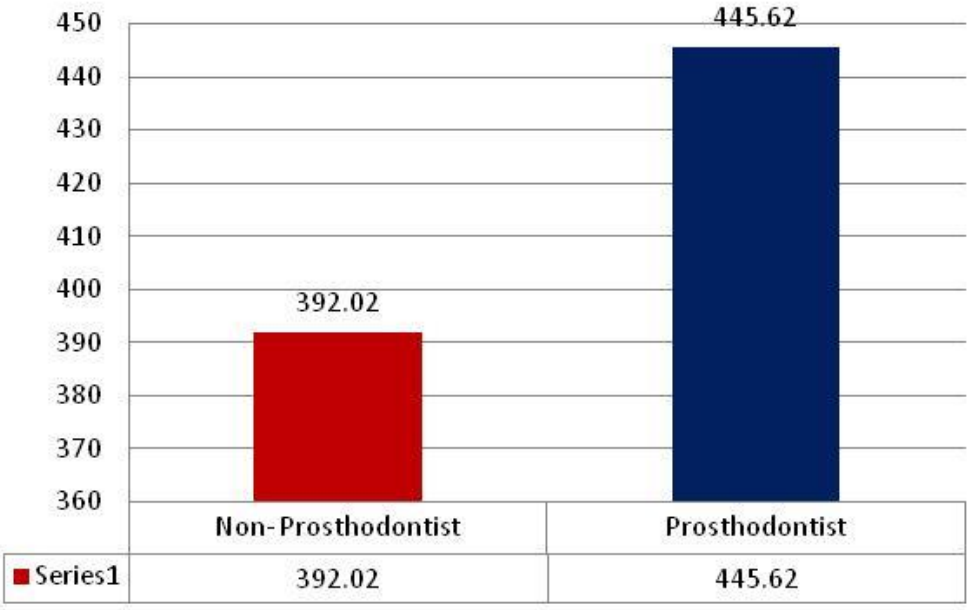
		Mean	SD	Std Error	P value
Complete Dentures	Non-Prosthodontist	2.520	1.758	0.203	0.001 (Sig)
	Prosthodontist	4.693	2.259	0.260	
Tissue Conditioners	Non-Prosthodontist	0.160	0.494	0.057	0.001 (Sig)
	Prosthodontist	0.853	0.729	0.084	
Soft Liners	Non-Prosthodontist	0.226	0.605	0.069	0.001 (Sig)
	Prosthodontist	1.013	0.877	0.101	



6. INTERGROUP COMPARISON OF MEAN CHARGE OF PATIENTS TREATED IN OPD AMONG THE PROSTHODONTISTS AND NON-PR0STHODONTISTS

The mean Charge of patients in the OPD of Non-Prosthodontist was 392.02 whereas the mean number of patients in the OPD of Prosthodontist dentist was 445.62 , The difference in the number of patients treated by the Non- Prosthodontist and Prosthodontist was statistically significant

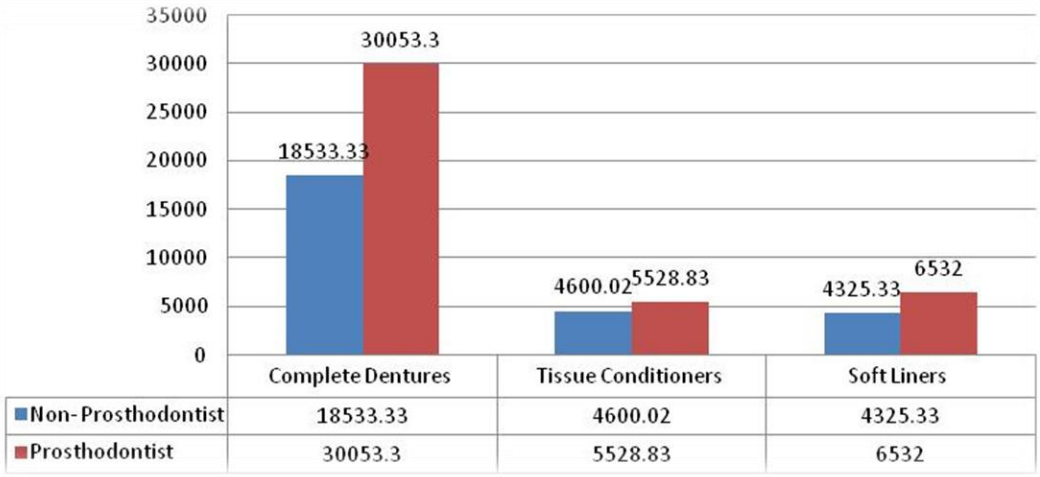
		Mean	SD	Std Error	P value
OPD	Non-Prosthodontist	392.02	102.35	11.818	0.001 (Sig)
	Prosthodontist	445.62	97.84	11.298	



7. INTERGROUP COMPARISON OF CHARGES OF COMPLETE DENTURES SOFT LINERS , TISSUE CONDITIONERS BETWEEN PROSTHOODNTISTS AND NON-PROSTHODONTITS

The mean OPD charges of the Non-Prosthodontist were 392.02 and among the Prosthodontist was 445.62. The mean OPD charge of the Prosthodontist was significantly higher than Non- Prosthodontist. The charge for the complete denture among the Non-Prosthodontist was 18533.33 wheeras the charge among the Prosthodontist was significantly higher at 30053.30. The mean charge for the tissue conditioners among the Non- Prosthodontist was 4600.02 and among the Prosthodontist was 5528.83, The mean charge for the Non- Prosthodontist was 4325.33 for the soft liners and 6532.0 for the Prosthodontist with significant difference between the Non- Prosthodontist and – Prosthodontist when analyzed using independent t test

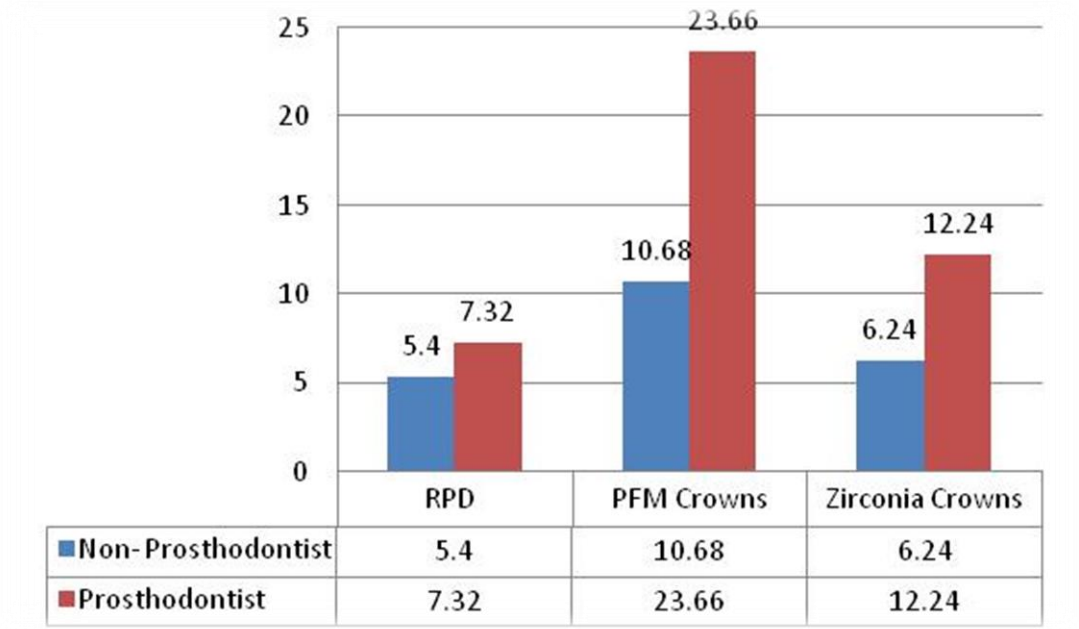
		Mean	SD	Std Error	P value
Complete Dentures	Non-Prosthodontist	18533.33	16368.50	1890.07	0.001 (Sig)
	Prosthodontist	30053.30	26590.43	3070.39	
Tissue Conditioners	Non-Prosthodontist	4600.02	1612.367	186.18	0.001 (Sig)
	Prosthodontist	5528.83	3188.672	373.20	
Soft Liners	Non-Prosthodontist	4325.33	1853.581	214.03	0.001 (Sig)
	Prosthodontist	6532.0	7350.127	848.71	



8. INTERGROUP COMPARISON OF RPD, PFM AND ZIRCONIA CROWNS BETWEEN PROSTHOODNTISTS AND NON-PROSTHODONTITS

The mean number of RPD Fabricated by the Non- Prosthodontist was 5.40 and among the Prosthodontist was significantly higher at 7.32.. The mean number of PFM fabricated by Non- Prosthodontist was 10.68 and among the Prosthodontist was 23.66.The mean number of Zirconium Crowns fabricated by Non-Prosthodontist was 6.24 and among the Prosthodontist was 12.24. The mean number of RPD , PFM and Zirconia crowns fabricated by the Prosthodontist were significantly higher than the Non- Prosthodontist

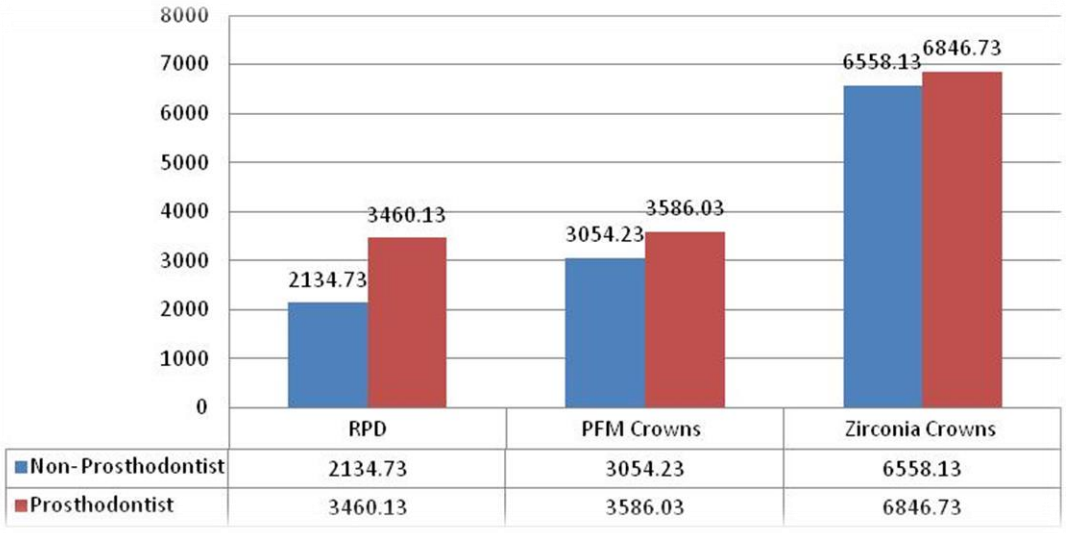
		Mean	SD	Std Error	P value
RPD	Non- Prosthodontist	5.40	2.711	0.313	0.001 (Sig)
	Prosthodontist	7.32	2.833	0.327	
PFM	Non- Prosthodontist	10.68	9.261	1.076	0.001 (Sig)
	Prosthodontist	23.66	6.103	0.704	
FPD	Non- Prosthodontist	6.24	4.389	0.506	0.001 (Sig)
	Prosthodontist	12.24	3.679	0.424	



9. INTERGROUP COMPARISON OF CHARGES OF RPD, PFM AND ZIRCONIA CROWNS BETWEEN PROSTHOODNTIST AND NON-PROSTHODONTITS

The mean charge of RPD Fabricated by the Non- Prosthodontist was 2134.73and among the Prosthodontist was significantly higher at 3460.13.. The mean charge of PFM fabricated by Non- Prosthodontist was 3054.23 and among the Prosthodontist was 3586.03 .The mean charge of Zirconium Crowns fabricated by Non-Prosthodontist was 6558.13 and among the Prosthodontist was 6846.73 . The charge of RPD , PFM and Zirconia crowns fabricated by the Prosthodontist were significantly higher than the Non- Prosthodontist

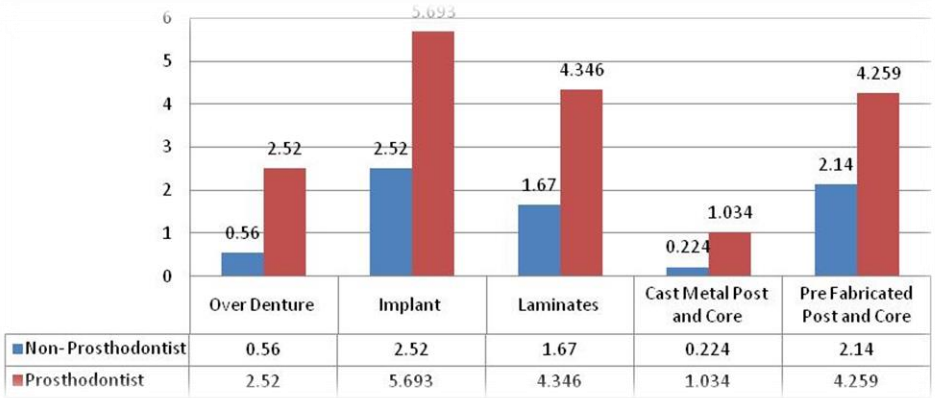
		Mean	SD	Std Error	P value
RPD	Non- Prosthodontist	2134.73	5697.284	657.865	0.001 (Sig)
	Prosthodontist	3460.13	2286.254	263.993	
PFM	Non- Prosthodontist	3054.23	808.592	96.645	0.001 (Sig)
	Prosthodontist	3586.03	679.029	78.407	
FPD	Non- Prosthodontist	6558.13	1755.61	204.08	0.001 (Sig)
	Prosthodontist	6846.73	1914.689	221.089	



10. INTERGROUP COMPARISON OF OVER DENTURES, IMPLANT, LAMINATES, CAST METAL POST AND PRE FABRICATED POST BETWEEN PROSTHOODNTISTS AND NON-PROSTHODONTITS

The mean number of Over Denture Fabricated by the Non- Prosthodontist was 0.56 and among the Prosthodontist was significantly higher at 2.520.. The mean number of Implants placed by Non- Prosthodontist was 2.520 and among the Prosthodontist was 5.693 The mean number of Laminate Crowns fabricated by Non-Prosthodontist was 1.67 and among the Prosthodontist was 4.346. The mean number of Cast Metal Post and Core fabricated by Non- Prosthodontist was 0.224 and among the Prosthodontist was 1.034. The mean number of Pre Fabricated Post and Core fabricated by Non- Prosthodontist was 2.140 and among the Prosthodontist was 4.259 The mean number of the Prosthesis fabricated by the Prosthodontist were significantly higher than the Non- Prosthodontist

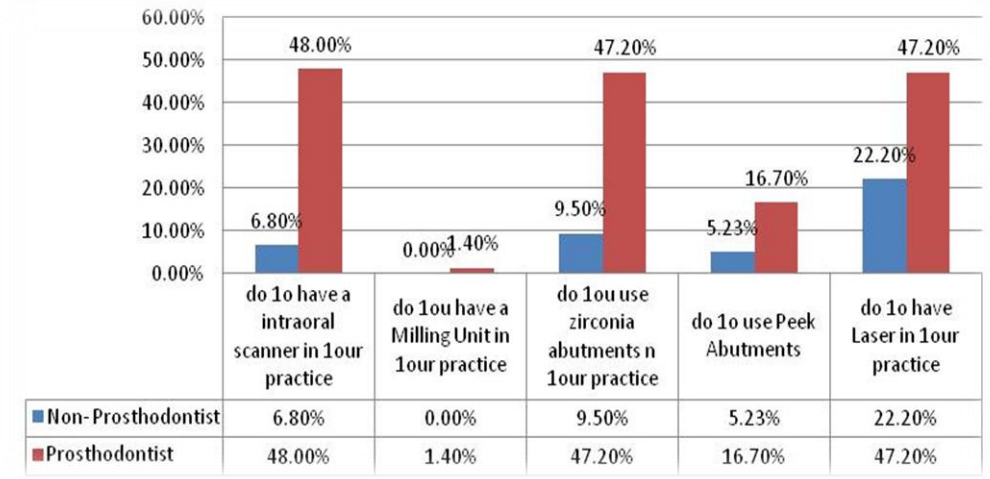
		Mean	SD	Std Error	P value
Over Denture	Non- Prosthodontist	0.56	0.335	0.412	0.001 (Sig)
	Prosthodontist	2.520	1.758	0.203	
Implant	Non- Prosthodontist	2.520	1.758	0.203	0.001 (Sig)
	Prosthodontist	5.693	2.232	0.261	
Laminates	Non- Prosthodontist	1.67	1.212	0.876	0.001 (Sig)
	Prosthodontist	4.346	2.164	0.437	
Cast Metal Post and Core	Non- Prosthodontist	0.224	0.605	0.069	0.001 (Sig)
	Prosthodontist	1.034	0.877	0.101	
Pre Fabricated Post and Core	Non- Prosthodontist	2.140	1.658	0.103	0.001 (Sig)
	Prosthodontist	4.259	1.259	0.360	



11. RESPONSES TO ADOPTATION OF MODERN TREATMENT PROTOCOLS

In response to question on availability of intraoral scanner in the practice 6.80% of the Non-Prosthodontist and 48% of the Prosthodontist were having intraoral scanner in their clinics. In response to question on the availability of milling machine in the clinics none of the Non- Prosthodontist had milling unit in their clinic whereas 1.40% of the Prosthodontist were having milling unit in their practice, In response to question on the use of Zirconia abutments n in practice, 9.50% of the Non-Prosthodontist and 47.20% of the Prosthodontist were using it in their clinics. In response to question on use of Peek Abutments, 5.23% of the Non- Prosthodontist and 16.70% of the Prosthodontist. On the question of availability of Lasers in the clinics the 22.20% of Non- Prosthodontist and 47.20% of the Prosthodontist were using it. The difference between Prosthodontist and Non- Prosthodontist in response to questions on availability of Intraoral scanners, use of Zirconia abutments use Peek abutments and availability of lasers was statstitically significant

	Non-Prosthodontist	Prosthodontist	P value	Significance
do 1o have a intraoral scanner in 1our practice	10	36	0.001	Sig
	6.80%	48.00%		
do 1ou have a Milling Unit in 1our practice	0	4	0.976	Non-Sig
	0.00%	1.40%		
do 1ou use zirconia abutments n 1our practice	16	74	0.001	Sig
	9.50%	47.20%		
do 1o use Peek Abutments	8	25	0.032	Sig
	5.23%	16.70%		
do 1o have Laser in 1our practice	16	74	0.001	Sig
	22.20%	47.20%		

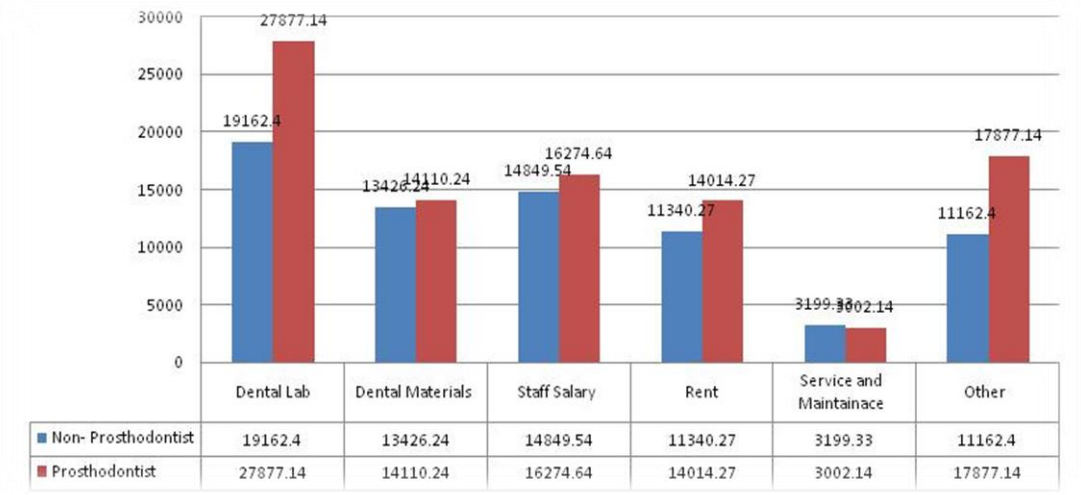


12(A). EXPENDITURE INCURRED BY PRSOTHODONTISTS AND NON-PROSTHOODNTIST ON VARIOUS THINGS

The mean Expenditure related to dental lab charges per month was 19162.40 by the Non-Prosthodontist and 27877.14 by the Prosthodontist. The mean Expenditure on dental materials per month was 13426.24 by the Non-Prosthodontist and 14110.24 by the Prosthodontist. The mean Expenditure related to staff salary per month was 14849.54 by the Non-Prosthodontist and 16274.64 by the Prosthodontist The Mean Expenditure related to rent per month was 11340.27 by the Non-Prosthodontist and 14014.27 by the Prosthodontist. The mean expenditure related to service and maintenance of equipment per month was 3199.33 among the Non- Prosthodontist and 3002.14 among the Prosthodontist. The difference between the Prosthodontist and Non-Prosthodontist was statistically non-significant in terms of Expenditure related to dental materials, salaries and rent payments. The mean Expenditure on the dental laboratory charges were significantly higher in the Prosthodontist as compared to Non-Prosthodontist

		Mean	SD	Std Error	P value
Expenditure related to dental lab charges per month	Non-Prosthodontist	19162.40	19332.01	247.30	0.001 (Sig)
	Prosthodontist	27877.14	12491.04	461.96	
Expenditure on dental materials per month	Non-Prosthodontist	13426.24	16746.22	946.709	0.782 (Non-Sig)
	Prosthodontist	14110.24	6658.33	779.298	
Eexpenditure related to staff salary per month	Non-Prosthodontist	14849.54	22515.57	617.38	0.457 (Non-Sig)
	Prosthodontist	16274.64	9628.74	134.75	
Expenditure related to rent per month	Non-Prosthodontist	11340.27	4620.49	577.5	0.234 (Sig)
	Prosthodontist	14014.27	5427.61	668.0	
expenditure related to service and maintenance of equipment per month	Non-Prosthodontist	3199.33	12777.73	549.52	0.829 (Non- Sig)
	Prosthodontist	3002.14	2857.88	339.16	
other expenses	Non-Prosthodontist	11162.40	3332.01	247.30	0.001 (Sig)
	Prosthodontist	17877.14	2491.04	461.96	

12(B). EXPENDITURE INCURRED BY PRSOTHODONTISTS AND NON-PROSTHOODNTIST ON VARIOUS THINGS

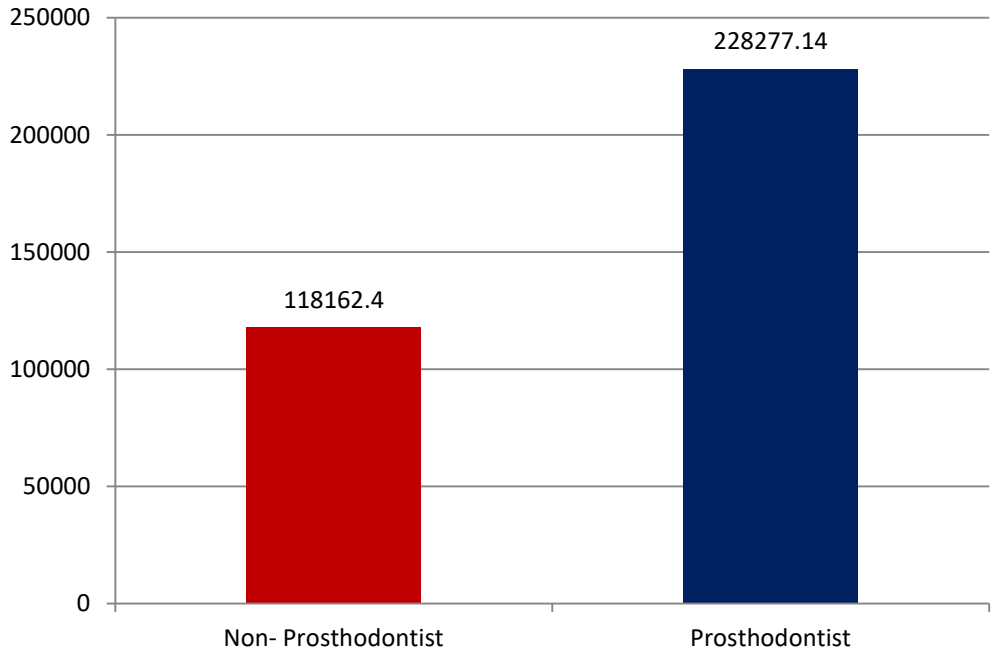


	Dental Lab	Dental Materials	Staff Salary	Rent	Service and Maintainace	Other
Non- Prosthodontist	19162.4	13426.24	14849.54	11340.27	3199.33	11162.4
Prosthodontist	27877.14	14110.24	16274.64	14014.27	3002.14	17877.14

13. OVERALL PROFIT AMOMG PROSTHODONTIST AND NON-PROSTHDONTIST

The mean overall profit among the prosthodontist was significantly higher as compared to non-prosthodontist

		Mean	SD	Std Error	P value
Overall Profit	Non-Prosthodontist	118162.40	16564.01	245.30	0.001 (Sig)
	Prosthodontist	228277.14	19493.04	671.96	



STATISTICAL ANALYSIS

The data for the present study was entered in the Microsoft Excel 2007 and analyzed using the SPSS statistical software 23.0 Version. The descriptive statistics included frequency and percentage. Mean and standard deviation The level of the significance for the present study was fixed at 5%.

The ordinal and nominal variable will be compared using Chi Square test The intergroup comparison will be done using the independent t tests The Shapiro–Wilk test was used to investigate the distribution of the data and Levene's test to explore the homogeneity of the variables.

Mean

$$\overline{X} = \frac{\Sigma X}{N}$$

Where:

$\overline{X}$ = the data set mean

$\sum$ = the sum of

X = the scores in the distribution

N = the number of scores in the distribution

Range

$$range = X_{highest} - X_{lowest}$$

Where:

$X_{highest}$ = largest score

X_{lowest} = smallest score

Variance

$$SD^2 = \frac{\Sigma(X - \overline{X})^2}{N}$$

The simplified variance formula

$$SD^2 = \frac{\Sigma X^2 - \frac{(\Sigma X)^2}{N}}{N}$$

Where:

SD^2 = the variance

$\sum$ = the sum of

X = the obtained score

$\overline{X}$ = the mean score of the data

N = the number of scores

Standard Deviation (N)

$$SD = \sqrt{\frac{\Sigma(X - \overline{X})^2}{N}}$$

The simplified standard deviation formula

$$SD = \sqrt{\frac{\Sigma X^2 - \frac{(\Sigma X)^2}{N}}{N}}$$

Where:

SD = the standard deviation

$\sum$ = the sum of

X = the obtained score

$\overline{X}$ = the mean score of the data

N = the number of scores

Independent t-test

Independent t Test can be used to determine if two sets of data are significantly different from each other, and is most commonly applied when the test statistic would follow a normal distribution. The independent samples *t*-test is used when two separate sets of independent and identically distributed samples are obtained, one from each of the two populations being compared

$$t = \frac{\overline{X}_1 - \overline{X}_2}{\sqrt{\left(\frac{(N_1 - 1)s_1^2 + (N_2 - 1)s_2^2}{N_1 + N_2 - 2}\right)\left(\frac{1}{N_1} + \frac{1}{N_2}\right)}}$$

Where X1 =Mean of the first Group, X2 =Mean of the Second Group

Chi Square Test

Chi-square is a statistical test commonly used to compare observed data with data we would expect to obtain according to a specific hypothesis. When an analyst attempts to fit a statistical model to observed data, he or she may wonder how well the model actually reflects the data. How "close" are the observed values to those which would be expected under the fitted model? One statistical test that addresses this issue is the chi-square goodness of fit test. This test is commonly used to test association of variables in two-way tables, where the assumed model of independence is evaluated against the observed data. In general, the ***chi-square test statistic*** is of the form

$$X^2 = \sum \frac{(\text{observed - expected})^2}{\text{expected}}.$$

If the computed test statistic is large, then the observed and expected values are not close and the model is a poor fit to the data

DISCUSSION

The present questionnaire based study was conducted to evaluate the growth and trends followed between the private practice of prosthodontist and non-prosthodontist, in northern and eastern states of India. Google forms containing questionnaires were sent to the participants. In present time Google forms are a reliable tool for survey, as stated in a study "online survey tools: a case study of Google forms" by Narayanaswamy et al.[10]

As reported by Nash[3,11,12] et al., survey on private practice of prosthodontist was sponsored and conducted by ACP (American college of prosthodontist) in the year 2008, 2011 and 2014 in USA. In the year 2008 this survey was done with the help of postal mail. In the year 2014 it was an internet survey. In this present study Google forms[10] are used.

In this study apart from collecting information on income and expenses of a private practice, questions are included regarding modern treatment procedures. Example - lasers and intraoral scanners. Verma and Kumar et al.[14] suggested the importance of LASERS in dentistry in their article . Almari et al.[15] suggested the importance of CBCT (cone beam computerized tomography). Diogaurdi M et al.[16] suggested the importance of guided implant surgery in their article. But CBCT and guided implant surgery software are not used routinely in private practices in northern and eastern states of India due to their increased operational cost. Although there are few independent CBCT and radiological centers where CBCT is available. These modern diagnostic tools and software's can be included in questionnaires of future survey.

In a study by Karen Kaiser,[17] titled "Protecting respondent confidentiality in qualitative research", it is suggested that respondent's confidentiality should be maintained for ethical and qualitative aspects of the research. Hence, the present questionnaires based study was completely voluntary and participant's privacy was maintained. The various questions in the survey were regarding – place of practice, age, gender, dental specialty of the participants, no. of various prosthodontics treatment procedure performed and respective charges. Questions regarding income and expenditure were also included.[11,12] The aim of this study is to evaluate the

success of prosthodontist in performing prosthodontic treatment procedures in a private practice in comparison to non-prosthodontist.

Based on the age distribution of the study sample 55.33% were of 25-34 years age group, 34% were of 35-44 years age group, 8.67% were of 45-54 years age group and 2% were of 54-65 yeas age group. This trend is explained by the fact that more number of dental specialists including prosthodontists are graduating from dental schools compared to the last decade. In a study by Samuel S. R.[18] in 2016 it is stated that about 30000 dental graduates pass out in India, many of these go for post graduation. Hence more number of prosthodontists are in their thirties and forties. Based on the gender distribution of the study subjects 34.67% were females and 65.33% were males. This trend may be explained by the fact female dental specialist opt for academics or jobs and more number of the male counterparts are present in private practice.

Based on the years of practicing dentistry 6.67% were practicing since 0-2 years, 34% were practicing since 3-5 years, 24% were practicing since 11-15 years and 1.33% were practicing since 16-25 years. The mean number of patients in the OPD of Non-Prosthodontist was 263.92 whereas the mean number of patients in the OPD of Prosthodontist dentist was 184.11.The difference in the number of patients treated by the Non- Prosthodontist and Prosthodontist was statistically significant. Nonprosthodontist attend to more number of patients in the OPD because their practice may span to more than one discipline of dentistry. Some nonprosthodontist may include multiple disciplines in their practice. But not necessarily more rewarding economically. In a study by Mohanty A and Patro S et al[19] in 2020 it is suggested that more than 41,000 root canal treatments (RCTs) are performed every day and about 25 RCTs are performed every week by an endodontist.

The mean number of complete dentures completed by the Non-Prosthodontist was 2.520/month whereas the mean number of dentures delivered by the Prosthodontist was 4.693. The mean number of dentures delivered by Prosthodontist was significantly higher than the Non-Prosthodontist. The mean number of patients with application of Tissue conditioners and Soft Liners were 0.160 and 0.226 by the Non-Prosthodontist where as the mean number of patients with application of tissue conditioners and soft liners by the prosthodontist were 0.853 and 1.013 respectively.

The mean number of patients treated for soft liners and tissue conditioners was significantly higher for the prosthodontist as compared to non-prosthodontist. **.** This finding can be can be supported by a study conducted by Sreeharsha T *et al*[20] *in* 2012 where they planned to evaluate and compare the masticatory performance in patients wearing complete dentures with and without the use of soft liners. Significant differences were seen between the masticatory performances of patients wearing complete dentures without and with the use of soft liners. . Soft liners can be advised in patients having poor mucosal conditions, tissue soreness and in cases of resorbed ridges.

The mean OPD charges of the nonprosthodontist were 392.02 and among the prosthodontist was 445.62. The mean OPD charge of the prosthodontist was significantly higher than non prosthodontist. The charge for the complete denture among the non-prosthodontist was 18533.33 whereas the charge among the prosthodontist was significantly higher at 30053.30. The mean charge for the tissue conditioners among the non-prosthodontist was 4600.02 and among the Prosthodontist was 5528.83, the mean charge for the non-prosthodontist was 4325.33 for the soft liners and 6532.0 for the prosthodontist with significant difference between the non prosthodontist and prosthodontist when analyzed using independent t test.

The mean number of rpd fabricated by the non-prosthodontist was 5.40 and among the prosthodontist was significantly higher at 7.32.. The mean number of pfm fabricated by non prosthodontist was 10.68 and among the prosthodontist was 23.66.The mean number of zirconium crowns fabricated by non-prosthodontist was 6.24 and among the prosthodontist was 12.24. The mean number of rpd, pfm and zirconia crowns fabricated by the prosthodontist was significantly higher than the non-prosthodontist. The mean charge of rpd fabricated by the non prosthodontist was 2134.73and among the prosthodontist was significantly higher at 3460.13.. The mean charge of pfm fabricated by non-prosthodontist was 3054.23 and among the prosthodontist was 3586.03.The mean charge of zirconium crowns fabricated by non prosthodontist was 6558.13 and among the prosthodontist was 6846.73. The charge of rpd, pfm and zirconia crowns fabricated by the prosthodontist were significantly higher than the non prosthodontist. Increased use of zirconia crowns by prosthodontists is due to the fact that zirconia crowns are aesthetically superior and

comes with better internal and marginal fit. This fact can be supported by a study conducted by Per Svanborg[21] in 2019 to evaluate the fit of zirconia single crowns and multi-unit FDPs. It was found that the zirconia crowns may be regarded as clinically acceptable, and the accuracy of the manufacturing of zirconia was60 microns for marginal, internal, and total gap. Also, digital impressions seem to be associated with a smaller gap value.

The mean number of over denture fabricated by the non- prosthodontist was 0.56 and among the Prosthodontist was significantly higher at 2.520. The mean number of implants placed by non- prosthodontist was 2.520 and among the prosthodontist was 5.693. The mean number of laminate crowns fabricated by non- prosthodontist was 1.67 and among the prosthodontist was 4.346. Laminates are a treatment of choice in prosthodontics and aesthetic dentistry. Yousef Alothman and Maryam Saleh Bamasoud[22] in 2018 suggested in their study that. Porcelain veneers show excellent aesthetic results and predictable longevity of the treatment, if the preparation design is proper.

The mean number of cast metal post and core fabricated by non- prosthodontist was 0.224 and among the prosthodontist was 1.034. The mean number of pre fabricated post and core fabricated by non- prosthodontist was 2.140 and among the prosthodontist was 4.259 The mean number of the prosthodontic treatment procedures performed by the prosthodontist and their respective charges were significantly higher than the non- prosthodontist. The explanation to this finding is that prosthodontists are more efficient in performing prosthodontic treatment procedures hence get more no. of patients seeking prosthodontic care.

In response to question on availability of intraoral scanner in the practice 6.80% of the non-prosthodontist and 48% of the prosthodontist were having intraoral scanner in their clinics. Use of intraoral scanners leads to better patient comfort and saves time. This fact can be supported by a study by Rafael Siqueira, Matthew Galli et al[23] in 2021 presented in which the authors speak about reduced procedure working time associated with the use of IOS can improve clinical efficiency and the patient experience during impression procedures. Patient-reported outcome measures (PROMs) are an essential component of evidence-based dental practice as they allow the evaluation of therapeutic modalities from the perspective of the patient. IOS is

generally preferred by patients over conventional impressions. In response to question on the availability of milling machine in the clinics none of the non-prosthodontist had milling unit in their clinic whereas 1.40% of the prosthodontist were having milling unit in their practice. In response to question on the use of zirconia abutments in practice, 9.50% of the non- prosthodontist and 47.20% of the prosthodontist were using it in their clinics. In response to question on use of peek abutments, 5.23% of the non- prosthodontist and 16.70% of the prosthodontist. On the question of availability of lasers in the clinics the 22.20% of non- prosthodontist and 47.20% of the prosthodontist were using it. The difference between prosthodontist and non- prosthodontist in response to questions on availability of intraoral scanners, use of zirconia abutments use peek abutments and availability of lasers was statistically significant more than 41,000 root canal treatments (rct's) are performed every day and about 25 rcts are performed every week by an endodontist. The success rate of endodontic treatment ranges between 86% and 98%; however, the failure rates cannot be ignored which can range up to 20% of the treated cases due to a varied number of reasons including incorrect adoption of working techniques and usage of inappropriate materials.

In a study in 2022 by Arunpriyatharsini S and Anandh B it was suggested that advances in digital dentistry have a significant impact in various fields of prosthodontics ranging from diagnosis to final treatment plan. CAD-CAM technology and its digital flow counterpart have simplified treatment procedures and reduced appointment time when used precisely. Though conventional impression has been the standard of practice for many decades, it is associated with time consumption, patient discomfort, and an undeniable degree of technical and manipulative skills and errors. The various modern treatment tools and procedures included in the survey find their relevance more in prosthodontic practice hence those are owned more by the prosthodontist. Prothodontists have better expertise in using the modern treatment tools and devices because they are trained so in their post graduate programs

The mean expenditure related to dental lab charges per month was 19162.40 by the non-prosthodontist and 27877.14 by the prosthodontist.

The mean expenditure on dental materials per month was 13426.24 by the non-prosthodontist and 14110.24 by the prosthodontist. The mean expenditure related to staff salary per month was 14849.54 by the non-prosthodontist and 16274.64 by the prosthodontist the mean expenditure related to rent per month was 11340.27 by the non-prosthodontist and 14014.27 by the prosthodontist. The mean expenditure related to service and maintenance of equipment per month was 3199.33 among the non- prosthodontist and 3002.14 among the prosthodontist. The difference between the prosthodontist and non-prosthodontist was statistically non-significant in terms of expenditure related to dental materials, salaries and rent payments. The mean expenditure on the dental laboratory charges were significantly higher in the prosthodontist as compared to non-prosthodontist. Prosthodontist expand more in lab charges, dental material charges. The explanation to this is that fabrication of various prostheses involves lab charges and dental materials compared to the practice of a non-prosthodontist. Additional hands in prosthesis fabrication and delivery would lead to increase in staff salary. Additional space requirement in the clinic would lead to increase in rent.

CONCLUSION

The present study was a survey based comparison to evaluate the success and trends followed between the prosthodontists and non-prosthodontists in their private practice in Northern and Eastern states of India. Following are the conclusions drawn from the study:

a) Based on the age distribution of the study sample 55.33% were of 25-34 years age group, 34% were of 35-44 years age group.

b) Based on the gender distribution of the study subjects 34.67% were females and 65.33% were males.

c) Based on the years of practicing dentistry 6.67% were practicing since 0-2 years, 34% were practicing since 3-5 years, 24% were practicing since 11-15 years and 1.33% were practicing since 16-25 years.

d) The mean number of patients in the OPD of non prosthodontist was 263.92 whereas the mean number of patients in the OPD of prosthodontist dentist was 184.11, which was found significant.

e) The mean number of complete dentures delivered, tissue conditioner and soft liner application by the Prosthodontist was significantly higher compared to non prosthodontists

f) The mean OPD charges of the Prosthodontist were significantly higher than the non prosthodontists. The mean charge for complete dentures soft liners and tissue conditioners of prosthodontists was significantly higher than the non prosthodontists

g) The mean number of rpd Fabricated and the mean charges of rpd done by the prosthodontists were significantly higher compared to non prosthodontist

h) The mean number and charge of PFM and zirconia crowns/FPD done by the prosthodontists were significantly higher compared to non prosthodontists.

i) The mean number and charges of a dentures, implant case, laminate and veneers done by the prosthodontists was significantly higher than the non prosthodontists

j) In response to question on availability of intraoral scanner, lasers, milling machine use of zirconia and peek abutments, the prosthodontists were significantly higher possession of these tools compared to non-prosthodontists

k) The mean monthly expenditure related to dental lab charges and dental materials of the prosthodontists was non-significantly higher compared to non prosthodontists. The expenditure related to service and maintenance paid by the non prosthodontists was non-significantly higher than the prosthodontists

l) The mean overall profit among the prosthodontist was significantly higher as compared to non-prosthodontist. The mean monthly profit of prosthodontists was found to be Rs 228277 and of non-prosthodontist it was Rs.118162.

Hence it can be concluded that prosthodontists are more successful in performing prosthodontic procedures compared to non-prosthodontists. Prosthodontists are also better equipped in terms of adopting modern treatment protocols in their private practice.

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BABU BANARASI DAS UNIVERSITY

BBD COLLEGE OF DENTAL SCIENCES, LUCKNOW

INSTITUTIONAL RESEARCH COMMITTEE APPROVAL

The project titled **"A Survey To Evaluate The Growth And Trends In Private Practice Of Prosthodontists In Northern And Eastern States Of India From 2018-2022"** submitted by **Dr Khirod Sonar** Postgraduate student in the **Department of Prosthodontics & Crown and Bridge** for the Thesis Dissertation as part of MDS Curriculum for the academic year 2021-2024 with the accompanying proforma was reviewed by the Institutional Research Committee in its meeting held on **14th September, 2022** at BBDCODS.

The Committee has granted approval on the scientific content of the project. The proposal may now be reviewed by the Institutional Ethics Committee for granting ethical approval.

Prof. Dr. Puneet Ahuja
Chairperson

Dr. Mona Sharma
Co-Chairperson

BABU BANARASI DAS UNIVERSITY

BBD City, Faizabad Road, Lucknow – 226028 (INDIA)

Dr. Lakshmi Bala
Professor and Head, Deptt of Biochemistry and
Member-Secretary, Institutional Ethics Committee (IEC) of BBD University, Lucknow

Communication of the Decision of the VIII[th] Institutional Ethics Committee Meeting

IEC Code: 42 **BBDU/MDS/42/2024**

Date: 27/02/2024

Title of the Project: A Survey To Compare The Success And Trends Followed Between The Private Practice Of Prosthodontists And Non-Prosthodontists In Northern And Eastern States Of India.

Principal Investigator: Dr. KHIROD SONAR **Department: Department of Prosthodontics**

Name and Address of the Institution: BBD University, Lucknow
Type of Submission: Modified, MDS Dissertation proposal

Dear Dr. Khirod Sonar,
The meeting of the Institutional Ethics Committee (IEC) was held on 06-02-2024 in Conference room, First Floor, BBDCODS, BBD University, Lucknow. Following members were present:

1	Dr. Chandishwar Nath Rtd. Chief Scientist, CDRI, Lucknow.	Chairman
2	Dr. JS Srivastava, Rtd. Chief Scientist, CDRI, Lucknow.	Member
3	Dr. Manodeep Sen, Professor, Department of Microbiology, RMLIMS, Lucknow	Member
4	Dr. Shaleen Chandra, Professor & Dean, Dental Sciences, Atal Bihari Vajpai Medical University (ABVM University), Lucknow	Member
5	Dr. Manuka Khanna, Professor, Deptt. of Political Science, Lucknow University, Lucknow	Member
6	Mr Abhishek Chaudhary, Advocate, Lucknow	Member
7	Dr. Puneet Ahuja, Professor of Oral Pathology and Principal, BBD College of Dental Sciences, BBD University, Lucknow	Member
8	Dr. Lakshmi Bala, Professor & Head, Department of Biochemistry, BBD College of Dental Sciences, BBD University, Lucknow	Member-Secretary

The committee reviewed and discussed your submitted documents of the research proposal in the meeting. Following comments were suggested and communicated.

Comments:

1. To mention in PID: "Participation in the study is purely voluntary."
2. Confidentially & Privacy to be mentioned.

Thereafter, the proposal was revised by Principal Investigator and duly approved by the Supervisor and Head of the Department.

Decisions: The committee approved the above proposal from ethics point of view.

Lakshmi Bala 27/02/24

(Dr. Lakshmi Bala)
Member-Secretary IEC
BBD University
Ethics Cell (Vth Floor, BBDCODS)
ethics@bbdu.ac.in

Dr. LAKSHMI BALA
Member-Secretary
Institutional Ethics Committee
BBD University, Lucknow-28

Babu Banarasi Das College of Dental Sciences

(Babu Banarasi Das University)

BBD City, Faizabad Road, Lucknow – 227105 (INDIA)

Consent Form (English)

Title of the Study: A survey to compare the success and trends followed between the private practice of prosthodontists and non-prosthodontits in northen and eastern states of india.

Study Number:

Subject's Full Name:

Date of Birth/Age:

Address of the Subject:

Phone no. and e-mail address:

Qualification:

Occupation: Student / Self Employed / Service / Housewife/ Other (Please tick as appropriate)

Annual income of the Subject……

Name and of the nominees(s) and his relation to the subject… ..... (For the purpose of
compensation in case of trial related death).

1. I confirm that I have read and understood the Participant Information Document dated ……..
for the above study and have had the opportunity to ask questions. **OR** I have been explained the nature of the study by the Investigator and had the opportunity to ask questions.
2. I understand that my participation in the study is voluntary and given with free will without any duress and that I am free to withdraw at any time, without giving any reason and without my medical care or legal rights being affected.
3. I understand that the sponsor of the project, others working on the Sponsor's behalf, the Ethics Committee and the regulatory authorities will not need my permission to

look at my health records both in respect of the current study and any further research that may be conducted in relation to it, even if I withdraw from the trial. However, I understand that my Identity will not be revealed in any information released to third parties or published.

4. I agree not to restrict the use of any data or results that arise from this study provided such a use is only for scientific purpose(s).

5. I permit the use of questionnaire data for future research **Yes [ ] No [ ] Not Applicable [ ]**

6. I agree to participate in the above study. I have been explained about the complications and side effects, if any, and have fully understood them. I have also read and understood the participant/volunteer's Information document given to me.

Signature (or Thumb impression) of the Subject/Legally Acceptable Representative……..

Signatory's Name……. Date …….

Signature of the Investigator…… Date……..

Study Investigator's Name..... Date……..

Signature of the witness…… Date……..

Name of the witness……

Received a signed copy of the PID and duly filled consent form

Signature/thumb impression of the subject or legally Date……..

Acceptable representative

Babu Banarasi Das College of Dental Sciences

(Babu Banarasi Das University)

BBD City, Faizabad Road, Lucknow – 227105 (INDIA)

Consent Form (Hindi)

अध्ययन का शीर्षक: भारत के उत्तरी और पूर्वी राज्यों में प्रोस्थोडॉन्टिस्ट और गैर-प्रोस्थोडॉन्टिस्ट के निजी अभ्यास के बीच सफलता और रुझानों की तुलना करने के लिए एक सर्वेक्षण।

स्टडी नंबर.....

विषय का पूरा नाम .....

जन्म तिथि/आयु .....

विषय का पता.....

फोन नंबर। और ई-मेल पता .....

योग्यता .....

व्यवसाय: छात्र / स्वरोजगार / सेवा / गृहिणी / अन्य (कृपया उपयुक्त के रूप में टिक करें)

विषय की वार्षिक आय.....

नाम और नामांकित व्यक्ति (ओं) और विषय के साथ उसका संबंध (के प्रयोजन के लिए) मुकदमे से संबंधित मौत के मामले में मुआवजा)।

1. मैं पुष्टि करता हूं कि मैंने प्रतिभागी सूचना दस्तावेज दिनांक . को पढ़ और समझ लिया है

.....उपरोक्त अध्ययन के लिए और प्रश्न पूछने का अवसर मिला है। या मुझे अन्वेषक द्वारा अध्ययन की प्रकृति के बारे में बताया गया है और मुझे प्रश्न पूछने का अवसर मिला है।

2. मैं समझता हूं कि अध्ययन में मेरी भागीदारी स्वैच्छिक है और बिना किसी दबाव के स्वतंत्र इच्छा के साथ दी गई है और मैं बिना कोई कारण बताए और अपनी चिकित्सा देखभाल या कानूनी अधिकारों को प्रभावित किए बिना किसी भी समय वापस लेने के लिए स्वतंत्र हूं।

3. मैं समझता हूं कि परियोजना के प्रायोजक, प्रायोजक की ओर से काम करने वाले अन्य, नैतिकता समिति और नियामक प्राधिकरणों को वर्तमान अध्ययन और किसी भी आगे के शोध के संबंध में मेरे स्वास्थ्य रिकॉर्ड को देखने के लिए मेरी अनुमति की आवश्यकता नहीं होगी।

इसके संबंध में आयोजित किया जा सकता है, भले ही मैं परीक्षण से हट जाऊं। हालांकि, मैं समझता हूं कि तीसरे पक्ष को जारी या प्रकाशित किसी भी जानकारी में मेरी पहचान प्रकट नहीं की जाएगी।

4. मैं इस अध्ययन से उत्पन्न होने वाले किसी भी डेटा या परिणामों के उपयोग को प्रतिबंधित नहीं करने के लिए सहमत हूं, बशर्ते ऐसा उपयोग केवल वैज्ञानिक उद्देश्यों के लिए हो।

5. मैं भविष्य के शोध के लिए संग्रहीत नमूने (दांत/ऊतक/रक्त) के उपयोग की अनुमति देता हूं। हाँ नही [ ]

लागू नहीं [ ]

6. मैं उपरोक्त अध्ययन में भाग लेने के लिए सहमत हूं। मुझे जटिलताओं और दुष्प्रभावों के बारे में समझाया गया है, यदि कोई हो, और उन्हें पूरी तरह से समझ लिया है। मैंने प्रतिभागी/स्वयंसेवक के मुझे दिए गए सूचना दस्तावेज को भी पढ़ और समझ लिया है।

विषय/कानूनी रूप से स्वीकार्य प्रतिनिधि के हस्ताक्षर (या अंगूठे का निशान):.....

हस्ताक्षरकर्ता का नाम..... तारीख .....।

अन्वेषक के हस्ताक्षर ..... तारीख.....

अध्ययन अन्वेषक का नाम ..... तारीख.....

गवाह के हस्ताक्षर..... तारीख.....

गवाह का नाम .....

पीआईडी की एक हस्ताक्षरित प्रति और विधिवत भरे हुए सहमति फॉर्म विषय के

हस्ताक्षर/अंगूठे का निशान या कानूनी रूप से दिनांक.....

स्वीकार्य प्रतिनिधि

Babu Banarasi Das College of Dental Sciences

(Babu Banarasi Das University)

BBD City, Faizabad Road, Lucknow – 227105 (INDIA)

Guidelines for Devising a Participant / Legally Acceptable Representative Information Document (PID) in English

Study Title A survey to compare the success and trends followed between the private practice of prosthodontists and non-prosthodontists in northern and eastern states of India.

1. Invitation Paragraph

You are being invited to take part in a research study. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with friends, relatives if you wish. Ask us if there is anything that is not clear or if you would like more information.

2. What is the purpose of the study?

This study aims to compare the success and trends followed between the private practice of prosthodontits and non prosthodontits in northern and eastern states of India.

3. Why have I been chosen?

You are chosen as you fulfill the criteria for the study.

4. Do I have to take part?

It is up to you to decide whether or not to take part. If you do decide to take part, you will be forwarded a google form of questionnaire. If you decide to take part, you are still free to withdraw at any time and without giving a reason.

5. What will happen to me if I take part?

You will have to answer a questionnaire.

6. What do I have to do?

You will be forwarded a google form questionnaire in your smartphones or laptops. The questionnaire will be containing questions regarding your private practice. Your identity will not be disclosed. This research study is self-sponsored by the candidate. You do not have to pay for any procedures involved.

7. What is the procedure that is being tested?

The Google questionnaire will be containing questions regarding various aspects of private practice.e.g: a)no of OPD patients in your clinic

b)no. of various treatment procedure/expenses etc.

8. What are the interventions for the study?

No interventions are required for the study

9. What are the side effects of taking part?

There are no side effects on the participant of the study.

10. What are the possible disadvantages and risks of taking part?

There are no disadvantages of taking part in this study.

11. What are the possible benefits of taking part?

The possible benefits of taking part in study is that. Data collected from this questionnaire survey regarding the private practice in various specialties in dentistry will be analyzed. This will help in understanding and solving various challenges in private dental practice today. This will also help the dental surgeon to better equip and prepare themselves for forthcoming practice in dentistry.

12. What if new information becomes available?

Sometimes during the course of a research project, new information becomes available about the research being studied. If this happens, you will be informed about it and the changes that can happen to the study will be informed. You are free to withdraw in the middle of the study. If you decide to continue in the study, you may be asked to sign an updated consent form.

13. What happens when the research study stops?

If the study finishes/stops before the stipulated time, then the reason for the same will be explained to the participants.

14. What if something goes wrong?

Nothing as such may go wrong since no invasive procedure is involved

15. Will my taking part in this study be kept confidential?

Your personal information will be kept confidential.

16. What will happen to the results of the research study?

Identity of the participants will not be disclosed in any result/ reports/ publications.

17. Who is organizing the research?

Study is organized by the Department of Prosthodontics, BBDCODS Lucknow.

18. Will the results of the study be made available after study is over?

If the participants wishes, the result of the study will be made available to him/ her.

19. Who has reviewed the study?

The HOD /IRC/IEC of the BBDCODS, Lucknow has reviewed and approved the study.

21. Contact for further information

Dr. Khirod Sonar
Department of Prosthodontics
Address: Banarasi Das University, Faizabad Road, Atif Vihar, Lucknow, UP. 226028
E-mail : khirod3285@bbdu.ac.in
Dr. Lakshmi Bala
Member Secretary of Ethics Committee of the institution,
Address: Babu Banarasi das University, Faizabad road, Atif Vihar, Lucknow, UP. 226028
Email: ethics@bbdu.ac.in

Name of pt.

– Address –

Email –

Tel no. –

Signature of PI……

Name……..

Date……..

The participant will be given a copy of the information sheet and the signed consent form.

Thank you for taking part in the study.

बाबू बनारसी दास कॉलेज ऑफ डेंटल साइंसेज (बाबू बनारसी दास यूनिवर्सिटी)

बीबीडी सिटी, फैजाबाद रोड, लखनऊ - 227105 (भारत)

एक प्रतिभागी तैयार करने के लिए दिशानिर्देश / अंग्रेजी में कानूनी रूप से स्वीकार्य प्रतिनिधि सूचना दस्तावेज (पीआईडी)

अध्ययन शीर्षक सफलता और रुझानों की तुलना करने के लिए एक सर्वेक्षण भारत के उत्तरी और पूर्वी राज्यों में प्रोस्थोडॉन्टिस्ट और गैर-प्रोस्थोडॉन्टिस्ट की निजी प्रैक्टिस के बीच इसका पालन किया जाता है।

1. निमंत्रण पैराग्राफ

आपको एक शोध अध्ययन में भाग लेने के लिए आमंत्रित किया जा रहा है। निर्णय लेने से पहले आपके लिए यह समझना महत्वपूर्ण है कि शोध क्यों किया जा रहा है और इसमें क्या शामिल होगा। कृपया निम्नलिखित जानकारी को ध्यान से पढ़ने के लिए समय निकालें और यदि आप चाहें तो दोस्तों, रिश्तेदारों के साथ इस पर चर्चा करें। हमसे पूछें कि क्या ऐसा कुछ है जो स्पष्ट नहीं है या यदि आप अधिक जानकारी चाहते हैं।

2. अध्ययन का उद्देश्य क्या है?

इस अध्ययन का उद्देश्य भारत के उत्तरी और पूर्वी राज्यों में प्रोस्थोडॉन्टिक्स और गैर प्रोस्थोडोनिक्स के निजी अभ्यास के बीच सफलता और रुझानों की तुलना करना है।

3. मुझे क्यों चुना गया है?

आपको चुना गया है क्योंकि आप अध्ययन के मानदंडों को पूरा करते हैं।

4. क्या करें मुझे भाग लेना है?

यह आपको तय करना है कि भाग लेना है या नहीं। यदि आप भाग लेने का निर्णय लेते हैं, तो आपको प्रश्नावली का एक Google प्रपत्र भेजा जाएगा। यदि आप भाग लेने का निर्णय लेते हैं, तो आप किसी भी समय और बिना कोई कारण बताए वापस लेने के लिए स्वतंत्र हैं।

6.मुझे क्या करना होगा?

आपको एक Google फॉर्म भेजा जाएगा आपके स्मार्टफोन या लैपटॉप में प्रश्नावली। प्रश्नावली में आपकी निजी प्रैक्टिस से संबंधित प्रश्न होंगे। आपकी पहचान उजागर नहीं की जाएगी. यह शोध अध्ययन उम्मीदवार द्वारा स्व-प्रायोजित है। आपको इसमें शामिल किसी भी प्रक्रिया के लिए भुगतान नहीं करना पड़ेगा।

7. वह कौन सी प्रक्रिया है जिसका परीक्षण किया जा रहा है?

Google प्रश्नावली में निजी प्रैक्टिस के विभिन्न पहलुओं से संबंधित प्रश्न होंगे, उदाहरण के लिए: a) आपके क्लिनिक में ओपीडी रोगियों की संख्या b) विभिन्न उपचार प्रक्रियाओं/खर्चों की संख्या आदि।

8. अध्ययन के लिए क्या हस्तक्षेप हैं?

कोई हस्तक्षेप नहीं है अध्ययन के लिए आवश्यक

9. भाग लेने के क्या दुष्प्रभाव हैं?

अध्ययन में भाग लेने वाले पर कोई दुष्प्रभाव नहीं है।

10. भाग लेने के संभावित नुकसान और जोखिम क्या हैं?

इस अध्ययन में भाग लेने के कोई नुकसान नहीं हैं।

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Submission Information

Author Name	KHIROD SONAR
Title	A SURVEY TO COMPARE THE SUCCESS AND TRENDS FOLLOWED BETWEEN THE PRIVATE PRACTICE OF PROSTHODONTISTS AND NON-PROSTHODONTISTS IN NORTHERN AND EASTERN STATES OF INDIA.
Paper/Submission ID	1469500
Submitted by	amarpal.singh056@bbdu.ac.in
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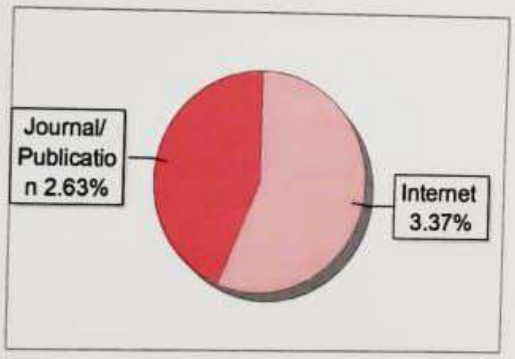

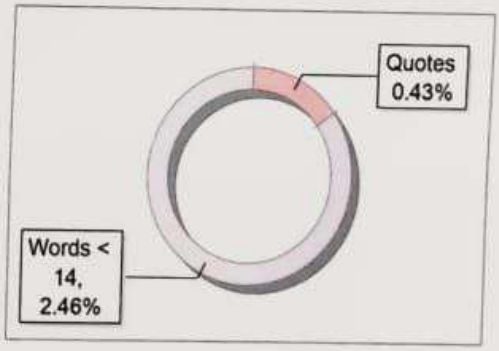

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