

UNIVERSITY OF PORT HARCOURT

**WALKING IN HIS STEPS:
THE STEWARDSHIP OF A
PROSTHODONTIST**

An Inaugural Lecture

By

PROF. ABIODUN OLABISI ARIGBEDE

*BDS (Ib), MSc Biomed Ed (Ib), FWACS, FMCDS, FICS, FICD
Department of Conservative Dentistry and Prosthodontics,
Faculty of Dentistry, College of Health Sciences*

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DEDICATION

I dedicate this Inaugural Lecture to the glory of the
Almighty God who redeemed my life.

ACKNOWLEDGEMENTS

First and foremost, I give glory to the Almighty-the Bishop of my soul for His mercies and love for me over the years. I thank Him for the opportunity to witness this memorable day. May His name be praised. The Lord blessed me with a wonderful family for which I remain grateful to Him. My special appreciation goes to my wife, my “better half”, Mrs. Foluke Olayemi Arigbede (fsi) and my darling daughter, Fogofoluwa Boluwarin Arigbede. Your support is the fuel for my progress and pillar for my success. I remember vividly my parents’ labour of love. It is evergreen in my mind. My late father, Pa Joseph Oladipupo Arigbede tried very hard to ensure that I had a quality education in spite of his precarious financial situation. My dear mother, Mrs. Ibijoke Rachael Arigbede, who is here present was also absolutely committed to my education and welfare during my formative years. I appreciate their sacrifices and loving care.

I would like to especially appreciate Barr Kolawole Odunayo Arigbede, Mrs. Kemi Sanni, Pastor Abayomi Arigbede, and Mr. Seun Talabi. Your wonderful families are also duly recognised. I am indebted to you all. I will not forget my nieces, Yetunde Ayodele and Funto Ayodele and their families. I heartily recognise late Mrs. Beatrice Arike Arigbede, Rev Bolaji Arigbede, Pasor Dayo Arigbede, Mrs. Tomilola Akande, Mr. Ademola Arigbede, Mrs. Yemi Afolabi, Rev Akin Arigbede and their precious families. In addition, my special recognitions go to the Arigbedes, Olatises-my in-laws, Bakares, and Abodundes. I thank you all for your unflinching support. May the Lord continue to uphold you with His right hand of power.

I would also like to recognise the following people: All my friends who have always been there for me through thick and thin. We have indeed grown to become one large family. These include: Dr. Tunde Okelola, Dr. Kunle Famakinwa, Dr. Timothy Osodin, Dr. Muyiwa Akinola, Pastor Simeon Ayoola, Pastor Deji Faleye, Pastor Olubisi, Mrs. Abike Agbeleye, Mrs. Funke Oluwade, Mr. Kehinde Ajisafe, Prof. M.A. Adedigba, and many other loved ones too numerous to mention.

Whatever I am today is by the grace of God. I thank all the people who lifted me up and on whose shoulders I stand today. I appreciate all my teachers in the Dental School, Ibadan starting with Prof. A.E. Obiechina, the late Prof. J.O. Lawoyin, Dr. D. Lawoyin, Prof. G.A. Oke, Prof. J.T. Arotiba, Prof. M.O. Arowojolu, Prof. A.O. Fasola, Prof. O.O. Denloye, Prof. J.O. Taiwo, Prof. B.M. Kolude, Dr. O.O. Bankole (Assoc Prof), Dr. O.O. Falomo, Dr. A. Ogunyinka as well as Prof. O.O. Dosumu and his wife-Prof. E.B. Dosumu. Prof. Dosumu recommended me for recruitment into the residency programme in Prosthodontics at the University College Hospital (UCH) Ibadan, trained me and supervised my projects. May God bless him tremendously. I recognise my other fellowship supervisors: Prof. T.A. Esan, Prof. P.A. Akeredolu, and the late Dr. O.P. Shaba. I am very grateful. I would not fail to recognise Dr. D.M. Ajayi (Assoc Prof), Dr. T.A. Ogunrinde, Prof. BF Adeyemi, Prof. Okoje, Dr. A.O. Sulaiman and others too numerous to mention. The contributions of Prof. D.C. Watts of the University of Manchester, UK and other senior colleagues and associates from other dental schools in Nigeria to my career are deeply and most sincerely acknowledged.

I am indebted to the General Overseer of the Mountain of Fire and Miracles Ministries (MFM) Worldwide, all the Pastors I have worked with in MFM Ozuoba, Uncle Segun and Mrs.

Kumbi Daramola and other wonderful brethren I have ever encountered, for their contributions to my spiritual development and well-being.

I would like to appreciate the Vice Chancellor of the University of Port Harcourt (Uniport)- Prof. Owunari Abraham Georgewill and indeed all the past Vice Chancellors since I joined the services of Uniport for their most invaluable contributions to my career. I am also indebted to Prof. O.J. Odia, the then Provost of the College of Health Sciences, who along with his team, midwived the Uniport Dental Programme. I thank Prof. Angela Frank-Briggs, the current Provost for her unflinching support and also the first female Provost of the College- Prof. Christie Mato for her mentorship. I am most grateful to the current DVC (Research and Development), Prof. Iyeopu Siminialayi and the former DVC Academic, Prof. Hakeem Fawehinmi for their priceless input in my career. I so much value the assistance Prof. Alice Nte has given to me in the course of my career particularly for helping in putting my documents in proper order before my professorial interview and also for proofreading the script of this lecture. I pray that you will forever enjoy divine assistance.

My gratitude goes to the past and present Chief Medical Directors (CMDs) of the University of Port Harcourt Teaching Hospital (UPTH) for starting and sustaining dental training in our Dental Centre. Very importantly, I would like to appreciate the pioneer Dean of our Faculty- Prof. Frank Okoisor for facilitating my employment and for the mentorship he provided. I deeply appreciate the efforts of the subsequent Deans and senior colleagues starting from Prof. A.E. Obiechina, Prof. C.O. Onyeaso who succeeded him and Prof. B.O. Akinbami, who handed the baton of deanship to me. Your various contributions to the Faculty are precious and

invaluable. I must recognise the present Dean, Prof. O.G Omitola and his Associate Dean Prof. J.O. Eminue for sustaining the progression of the Faculty of Dentistry. I am most grateful to Prof. O.A. Akadiri, my friend and brother; your support will never be forgotten. Further appreciation goes to Prof. O.B. Braimoh who was my Associate Dean, the Acting Head of the Department of Restorative Department- Dr. A.U. Umanah, and other colleagues in our department-Dr. C. Omoruyi, Dr. Peter Igwedibia and indeed all the Heads and academic staff of our faculty.

I must not fail to acknowledge the support of Mrs. Gladys Amadi, Dr. Anna Brambraifa, Dr. Ekwi John-Adegbesan, Mrs. Chinaza Akaninwor, Mrs. Florence Udeorah, Mr. Benedict Obiam and all the other senior and junior staff in our faculty office who made my tenure a success. My gratitude also goes to Mrs. Isioma Soni-Uboh, Mrs. Obatarhe Ehoru, and Mrs. Chinasa Ogini. I admire the support of Mr. Chinedu Nwankwo, Mr. Chuku-Robinson, Mrs. Augustina Olufemi, Mrs. Chioma Cheta-Chuku, Mrs. Susan Kelechi and all other non-academic staff in the Department and Faculty at large. How I wish late Mr. B.O. Ocheke was alive today. May His soul rest in peace. Finally, I appreciate all the Resident Doctors, Dental Surgery Technicians especially Mrs. Margaret, Dental Technologists-Mr. Tony, Mrs. Atuegbu, Mrs. Njor, Mr. Warmate, Mrs. Eyisi and their teams, Dental Therapists, Dental Nurses and administrative staff in UPTH. My beloved students, past and present, without you, I will probably not be here today. To all the guests and well-wishers here present today, I ask the good Lord to honour you all.

ORDER OF PROCEEDINGS

2.45 pm. Guests are seated

3.00pm. Academic Procession begins

The Procession shall enter the CBN Centre of Excellence auditorium, University Park, and the Congregation shall stand as the Procession enters the hall in the following order:

Academic Officer

Professors

Deans of Faculties/School

Dean, School of Graduate Studies

Provost, College of Health Sciences

Lecturer

University Librarian

Registrar

Deputy Vice Chancellor Research and Development

Deputy Vice Chancellor Academic

Deputy Vice Chancellor Administration

Vice Chancellor

After the Vice Chancellor has ascended the dais, the Congregation shall remain standing for the University of Port Harcourt Anthem.

The Congregation shall thereafter resume their seats.

THE VICE CHANCELLOR'S OPENING REMARKS.

The Registrar shall rise, cap, invite the Vice Chancellor to make his opening remarks and introduce the Lecturer.

The Lecturer shall remain standing during the Introduction.

THE INAUGURAL LECTURE

The Lecturer shall step on the rostrum, cap and deliver his Inaugural Lecture. After the lecture, he shall step towards the Vice Chancellor, cap and deliver a copy of the Inaugural Lecture to the Vice Chancellor and resume his seat. The Vice Chancellor shall present the document to the Registrar.

CLOSING

The Registrar shall rise, cap and invite the Vice Chancellor to make his Closing Remarks.

The Vice Chancellor's Closing Remarks.

The Vice Chancellor shall then rise, cap and make his Closing Remarks. The Congregation shall rise for the University of Port Harcourt Anthem and remain standing as the Academic [Honour] Procession retreats in the following order:

Vice Chancellor
Deputy Vice Chancellor Administration
Deputy Vice Chancellor Academic
Deputy Vice Chancellor Research and Development
Registrar
University Librarian
Lecturer
Provost, College of Health Sciences
Dean, School of Graduate Studies
Deans of Faculties/School
Professors
Academic Officer

PROTOCOL

- ❖ The Vice Chancellor
- ❖ Past Vice Chancellors
- ❖ Deputy Vice Chancellor, Academic
- ❖ Deputy Vice Chancellor Research and Development
- ❖ Past Deputy Vice Chancellors
- ❖ Members of the Governing Council
- ❖ Principal Officers of the University
- ❖ Provost, College of Health Sciences
- ❖ Dean, School of Graduate Studies
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- ❖ Deans of Faculties
- ❖ Heads of Departments
- ❖ Distinguished Professors
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- ❖ Visiting Academics and Colleagues
- ❖ Esteemed Administrative Staff
- ❖ Captains of Industries
- ❖ Cherished Friends and Guests
- ❖ Unique Students of UNIPORT
- ❖ Members of the Press
- ❖ Distinguished Ladies and Gentlemen

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Introduction

Mr. Vice Chancellor, Sir, the inaugural lecture I am giving today is the first in the Department of Conservative Dentistry and Prosthodontics of the University of Port Harcourt, the third in the Faculty of Dentistry and the second in the specialty of Prosthodontics in Nigeria. The first was presented in 2015 by my teacher and mentor, Professor Oluwole Oyekunle Dosumu of the University of Ibadan Dental School.

Getting to the peak of any career, most especially in academia, is not a mean feat. I am, therefore very delighted today to stand before you Mr. Vice Chancellor, and this noble audience to share the story of my stewardship in the specialty of Prosthodontics.

What is Prosthodontics?

Word origin- The term is coined from Prosth(**esis**) + odont (**tooth**) + ics (**a subject of study**).

Prosthesis: - *“an artificial replacement of part of the human anatomy restoring form, function, and aesthetics”* -GPT-9, 2017.

Prosthetics: - *“the art and science of supplying artificial replacements for missing parts of the human”* -GPT-9, 2017.

When the art and science of providing prosthesis is applied to Dentistry, the term Prosthetics becomes **Prosthodontics** or **Dental Prosthetics** which is defined as *“the Dental specialty pertaining to the diagnosis, treatment planning, rehabilitation, and maintenance of the oral function, comfort, appearance, and health of patients with clinical conditions associated with missing or deficient teeth and/or maxillofacial tissues by using biocompatible substitutes”*-GPT-9, 2017.

The subspecialties include:

- **Removable Prosthodontics-** In this subspecialty, patients are rehabilitated with prostheses that can be removed from the mouth and reinserted at any time.
- **Fixed prosthodontics** -this subspecialty involves the rehabilitation of patients with prostheses that the patients cannot remove by themselves.
- **Implant Prosthodontics** -the prostheses provided in this subspecialty are retained or supported by specially embedded devices called dental implants.
- **Maxillofacial Prosthodontics** -this subspecialty involves the art and science of providing prosthetic replacement for eyes, ears, nose, jaws, tongue and other defective or missing tissues in the cranio-facial region.

Classification of Oral and Maxillofacial Defects

“It is the God-given right of every human being to appear human” -Chalian et al.,1972.

The oro-facial region significantly determines the aesthetic appearance of an individual. Defects in this region disfigure the individual and distort form and function. In addition, the self-confidence, self-worth, social acceptability, and ability of the individual to interact with others may be significantly damaged.

Oral and maxillofacial defects can be classified as follows:

Congenital Defects: (present at birth) e.g., cleft lip and palate, craniofacial cleft, micrognathia and mandibulofacial dystosis.

Developmental Defects: These defects are formed when growth centres involved in the formation of the face and mouth

structures are exposed to trauma, surgery, or radiotherapy; hence, subsequent disruption or arrest of growth and development. Examples include prognathism and retrognathism

Acquired Defects:

1. Defects that are formed due to trauma (gunshot wounds, traffic accidents, etc.)
2. Surgical excision of tumour (post-surgical defect);
3. Disease conditions-Noma/cancrum oris, osteomyelitis, syphilis, cancer;
4. Osteoradionecrosis
5. Osteonecrosis secondary to the use of bisphosphonates, chronic use of cocaine

Examples of Oral and Maxillofacial Defects



Upper Jaw Defect



Orbital Defect

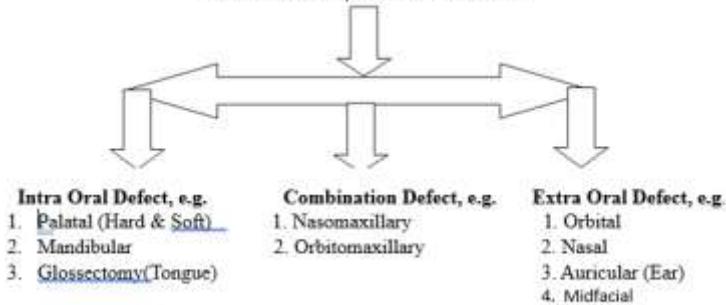


Cleft Lip & Congenital Nasal Deformity



Lower Jaw Tumour

Classification of Maxillofacial Defects



Objectives of Prosthetic Treatment

1. Restoration of facial aesthetics: the face is the anterior part of the head and it is the first part of human body to be noticed by others. Defects in this region easily and commonly cause significant disfigurement that may affect the quality of life of those concerned.
2. Restoration of function: patients who have maxillary resection, for example, can present with hypernasal speech, and swallowing can result in nasal regurgitations (food or fluid coming out of the nose). If the soft palate is involved, in addition to hypernasal speech, fluid or food bolus cannot be properly propelled into the oesophagus, swallowing thus becomes difficult.
3. Protection of tissues
4. Therapeutic or healing effect
5. Psychological therapy

Operating Field of a Dentist

Presently, none of the nomenclatures used so far to describe the Dental programme, viz. Dental Surgery, Dentistry, Dental Medicine, Oral and Dental Medicine, and Odontostomatology appropriately captures the operating field of a dental surgeon. Ironically, some dental specialties like Oral and Maxillofacial Surgery, Oral and Maxillofacial Pathology and subspecialty like Maxillofacial Prosthodontics, on the basis of their nomenclatures alone describe a broader scope than the parent discipline. It is, therefore, informative to disclose that the operating field of dental surgeons encompasses not just the teeth but the entire oral cavity and maxillofacial region.

In some situations, the expertise of a maxillofacial surgeon and maxillofacial prosthetic dentist may be required even beyond these anatomical regions.

Education & Training in the Specialty of Prosthodontics

To be a specialist in Prosthodontics, it is mandatory to, first of all, have a Bachelor of Dental Surgery degree (BDS, B.Ch. D., DDS, etc.). This takes a period of five to six years fulltime, depending on whether the admission is by direct entry into 200 level or through the Joint Admission Matriculation Examination (JAME) into the 100 level. Those who successfully complete the programme would undergo a compulsory one-year internship programme and a year National Youth Service.

Residency training in Prosthodontics by the West African College of Surgeons and/ or National Postgraduate Medical College of Nigeria takes a period of five to six years. Therefore, it takes a minimum of 12 to 14 years to qualify as a specialist in Prosthodontics in Nigeria.

Those who are interested in Maxillofacial prosthodontics as a super specialty would require additional years after the postgraduate fellowship qualification. Apart from the Residency Training pathway, some countries also have postgraduate clinical academic degree pathway which takes 3-4years on its own.

My Training Experience

I did my Residency Training in Prosthodontics at the famous University College Hospital (UCH), Ibadan under Prof. Oluwole Dosumu. I passed the Part II Examinations of the West African College of Surgeons and that of the National Postgraduate Medical College of Nigeria in October and November 2004 respectively. By divine providence, I became the first Dental Surgeon to achieve this feat in any Nigerian-based training institutions.

I am delighted today in that a few other individuals have subsequently achieved the same feat. I must sincerely confess that my success at both examinations at that time was not due to any extraordinary ability or ambitious pursuit of an exemplary honour, it was rather by His grace and I give God the glory. I was not even aware of the feat until one of my supervisors brought it up to my attention.

Evolution of Prosthodontics

Sir Winston Churchill advised us to "study history when planning for the future so as not to perpetuate the failures of the past."

The origin of dental prosthetic practice is uncertain, but many ingenious dental and facial prostheses made using pebbles, wax, bone, ivory, etc, were used for many centuries despite their gross limitations. This is understandable because maxillofacial defects are often accompanied by poor quality of life; hence affected patients will always seek care.

Many of these ancient prostheses dated as far back as 700 BC or earlier. Therefore, it is not correct to associate dental prosthetic rehabilitation with civilization. As the understanding of the science of dental materials improved, the art and science of dental technology and clinical prosthetic rehabilitation equally evolved. However, the journey to the discovery of the current principles and practices in the field of Prosthodontics was long and tortuous.

Ancient Dental and Maxillofacial Prostheses



A denture with six ivory teeth bound with gold wire excavated at Sidon in 1802



Carved upper and lower complete ivory dentures retained by spring



Cosgrove, 2013

(Sir Henry Wellcome's Museum Collection)

Modern Dental and Maxillofacial Prostheses



Flexible Lower Partial Denture



Silicone Nasal Prosthesis
Endolite India Ltd
ID: 22296763791



Upper and Lower Complete Dentures



Fixed Partial Denture

Steps Involved in Prosthodontic Practice

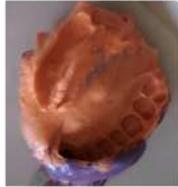
Some of the steps involved in prosthetic rehabilitation of individuals with oral and/ or extra oral defects may include the following:

- Evaluation (history, oral examination, investigation, etc.) and consent taking
- Dental impression making (negative record of the teeth & supporting structures, facial defect, etc)
- Pouring of the cast (positive record) & Registration of jaw relationship where necessary
- Fabrication of wax image (model) of the prosthesis and try-in procedure
- Processing of the prosthesis (manual/ digital methods)
- Delivery of the prosthesis and follow up

Photographic Representations of the Steps Involved in Dental Prosthetics



Upper Jaw Defect
in One of
Our Patients



Impression of
the Affected
Jaw



Dental Stone
Cast of the
Defect

Walking In His Steps

The steps used in modern dental prosthetic practice took ages to discover even though they were clearly documented in the Holy Bible as shown below. Therefore, the crude, trial and error clinical practices of ancient times could have been avoided if attention was given to the scriptures.

- **Taking patient's history:** - *“Jesus asked the boy's father (a sick boy's father), “How long has he been like this?” “From childhood”, he answered.” (Mark 9:21). This type of conversation is what is now referred to as history taking in clinical practice.*
- **Oral examination:** - *“Jesus led him (a deaf man with speech impairment) away from the crowd so they could be alone (private consultation). He put His fingers into the man's ears. Then, spitting on his own fingers, he touched the man's tongue (oral exam)”- Mk 7:33*
- **Consent taking:** - *“When Jesus saw him lie, and knew that he had been now a long time in that case, he saith unto him, Wilt thou be made whole (requested for consent)?” John 5:6 (KJV)*
- **Orbital impression:** - *Then he spit on the ground, made mud with the saliva (mixing of impression material), and*

spread the mud over the blind man's eyes (orbital impression making).” -John 9:6(NLT)



Orbital impression
for orbital prosthesis
Mutneja et al., 2018



One of our patients
for orbital impression

- **Request for wax pattern (model of the prosthesis):** *And God said, Let us make man in our image, after our likeness. Gen 1: 26 (KJV)*
- **Processing:** - *“And the LORD God formed man of the dust of the ground (unprocessed image/model), and breathed into his nostrils the breath of life (the non-living, non-resilient, non-aesthetic and brittle material that was used to make the model was removed); and man became a living soul (a new and better material in terms of aesthetics and compatibility with life was introduced to replace the lost material).” -supernatural or divine processing.” Gen 2:7. The approach used for processing dental prosthesis is similar to this.*

Mr. Vice Chancellor Sir, from the foregoing, prosthodontists today are merely following His steps; hence, the title of the inaugural lecture- **“Walking In His Steps”: The Stewardship of a Prosthodontist (I Pet 2:21)**

My Stewardship in Clinical Practice & Service to the Local Community

Case One



A Lady with
Missing Upper
Front Teeth



After Treatment
with Dental
Implant

Case Two



A School Boy with
Total Mandibular
Defect



After Prosthetic
Treatment

Case Three



Upper Jaw
Defect



Trial
Prosthesis



After Prosthetic
Treatment

Case Four



Elderly Man
Having No Teeth



After Prosthetic
Treatment

Case Five



Industrial Accident: Surgical Phase of Treatment



Prosthetic Phase of Treatment

My Contributions to Knowledge and Activities in the University-Stewardship of a Prosthodontist

Dental Materials

One of my areas of research interest is dental materials and the materials I worked on include resin composite.

Resin Composite

It is the most commonly used restorative material globally. It has excellent aesthetic and physical properties. However, it is not an ideal restorative material. The limitations include: incremental processing, stickiness, fracturing, chipping, polymerisation (processing) shrinkage and so on.



Resin composite & Processing light

I and my colleagues investigated extensively some of these limitations and came up with beautiful results and recommendations.

Resin Composite Stickiness Study

Stickiness of resin composite could contribute to restoration failure and increase in treatment time. During my visit to the University of Manchester, we assessed the stickiness of seven resin composite materials using the newly commissioned equipment designed by biomedical engineers from the University of Manchester at the behest of Prof. Watts, Head, Biomaterials Research Group Laboratory, Dental School, University of Manchester. I had the privilege of being the 1st person to use the equipment for experimental studies. We found out that the stickiness instrument was able to distinguish between the resin composite materials regarding their stickiness parameter. Tetric resin composite appeared to show the highest stickiness while TetricEvoceram showed no stickiness. Stickiness shows a direct relationship with high temperature and indirect relationship with the speed at which the probe was retracted. We recommended that resin-composites should not be dragged while being picked up; rather, a snappy movement should be employed.

These novel findings were presented by Prof. Watts himself at the Pan European Federation of the International Association for Dental Research Conference, London, September, 2008 (Watts, Gleave, Ertl, & **Arigbede (2008)**). Rate-dependence of Resin-Composite stickiness during simulated clinical placement. Paper presented at Pan European Federation of the International Association for Dental Research Conference, London.



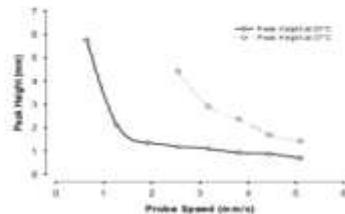
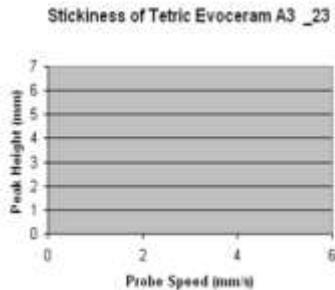
Prof. Watts posed with the stickiness machine



During my send forth in Manchester

Details of the Resin Composite Materials Used for the Study on Stickiness

Material	Shade	Lot	Filler Content (wt %)	Company
<u>Grandio</u>	A3	680533	87	VOCO, Germany
<u>Clearfil Majesty Posterior</u>	A3	00001A	-	Kuraray Medical Okayama, Japan
<u>Filtek Silorane</u>	A2	204685	-	3M ESPE, Germany
Ceram X Mono	M5	0611000357	-	Dentsply <u>DeTrey</u> <u>GmbH</u>
<u>Tetric Evoceram</u>	A3	J20253	48.5%	<u>Ivoclar</u> <u>Vivadent</u>
<u>Tetric</u>	A3	H03716	81.0%	<u>Ivoclar</u> <u>Vivadent</u>
<u>Quixfil</u>	Universal	0609001914	86%	Dentsply <u>DeTrey</u> <u>GmbH</u>



Tetric Resin Composite

Microhardness and Depth of Cure Study

Another shortcoming of resin composite material is the fact that the curing light (used to convert it from paste form to a hard or rigid structure/polymerise) does not penetrate much depth and area where the light does not get to sufficiently will not become hard. On this note, the recommended depth of curing/processing the material is usually 2mm or less. When this thickness is exceeded, some of the material may remain unprocessed and thereby predispose the restoration to failure.

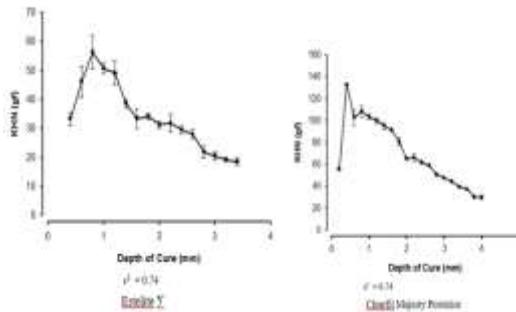
To analyse these challenges, we evaluated the microhardness of six randomly selected resin composites and one experimental sample as a function of depth of cure of the materials (in relation to the depth of penetration of the curing light). We discovered that two of the materials (Estelite Σ and Clearfil Majesty) could be cured at a depth greater than 3mm (capable of being cured in bulk) and the shade of resin-composite influences the depth of cure. Regression analysis shows a negative correlation between microhardness and depth of cure parameters. I am happy to report today that bulk curable resin composites are now available in clinical dental practice. **Arigbede et al., (2010).**

Details of the Resin Composite Materials Used for the Study on Microhardness

Material	Lot No.	Shade	Manufacturer
<u>Gradia Dentin</u>	0109012	DA3	GC, Tokyo, JP
<u>Estelite Σ</u>	E627	A3	Tokuyama Dental, Tokyo, JP
<u>Filtek Silorane</u>	203905	A3	3M ESPE, Seefeld, DE
<u>Clearfil Majesty Posterior</u>	00001A	A3	Kuraray Medical, Okayama, JP
<u>Els extra low shrinkage A2</u>	04.2008-08 Art. No. 7104	A2	<u>Saremco Dental</u> , Rhein valley, CH
<u>Els extra low shrinkage A3</u>	11.2010-27 Art. No. 7101	A3	<u>Saremco Dental</u> , Rhein valley, CH
<u>NEUN</u>	VP250705	A3	Heraeus Kulzer, Hanau, CH



Microhardness Tester



Two Materials that could be processed at a depth of 3mm

Resin Composite and Edge Strength Study

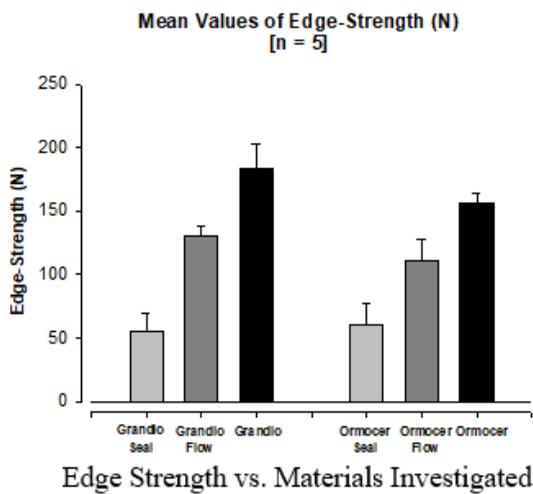
A promising restorative material that does not exhibit the polymerisation (processing) shrinkage and shrinkage stress associated with resin composite (the most commonly used material presently) and which has been on the research radar of dental materials scientists for some time now isOrmocer (organically modified ceramic). As part of the in-vitro assessment of an experimental Ormocer material, we evaluated and compared the force required to create a chip at an arbitrary depth of 0.5mm (edge strength) and the mode of failure (cracking or chipping) of commercial Grandio-based group of resin-composites (Grandio, Grandio flow and Grandio seal) and those of a group of experimental Ormocer (Ormocer, Ormocer flow and Ormocer seal) all of which were manufactured by VOCCO in Germany. We hypothesised that the edge-strength of the materials had no relationship with the filler load fraction. Edge strength measurement device (CK10) (Engineering systems, Nottingham, UK) was used.

We were able to show that the Grandio-based resin-materials exhibited greater edge-strength than their equivalents Ormocer composites apart from Grandio seal where the converse was the case. A step-wise decline in edge-strength was recorded for both the Ormocer composites and the Grandio-based resin-composites as the filler content decreases. Chipping was the predominant failure mode recorded for all the Ormocer resin composites whereas this type of failure mode was only recorded for Grandio seal under Grandio-based resin composite. The study showed that the Grandio-based resin composite performed better than the experimental Ormocers. The study is significant because edge strength is considered to be one of the critical indicators for the success of dental restorative materials.



Edge Strength Machine-CK10

Engineering Systems, Nottingham, UK



Edge Strength, Filler Content and Predominant Failure Mode of the Materials Investigated

Materials	Mean Edge-Strength, n=5 (SD)	Filler content by weight (%)	Predominant Failure Mode
Grandio	183.3 (19.2)	87	Cracking
Grandio Flow	130.2 (7.9)	80	Cracking
Grandio Seal	55.5 (13.4)	70	Chipping
Experimental Ormocer	156.0 (8.5)	-	Chipping
Experimental Ormocer Flow	111.5 (16.1)	-	Chipping
Experimental Ormocer Seal	60.0 (16.9)	-	Chipping

Repair of Resin Composite Restoration Study

We investigated how defective composite resin restorations were being repaired among Conservative dentists in Nigeria with the objective of comparing the findings with the global practice and we found that their practice was consistent with the findings in the literature. **Arigbede et al., (2012).**

Causes of Failure and Management of Defective Amalgam Restoration Study

Similarly, we evaluated the causes of amalgam restoration failure and how they were being managed in our environment. We found that fracturing of the restoration was the commonest cause of failure and that management was variable, but replacement with amalgam was the commonest treatment. The average life span of restoration was 8.3years. **Ajayi, Abiodun-Solanke, & Arigbede (2013).**

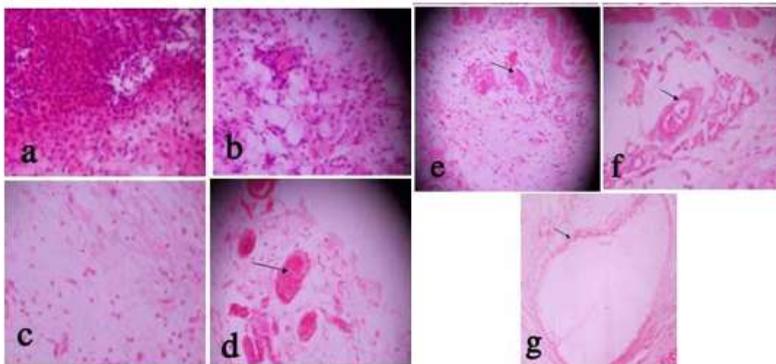
Dental Application of Nanotechnology

We reviewed the literature and reported that nanotechnology was applied in the following areas of dentistry: diagnosis and treatment, bone replacement materials, nano anaesthesia, nano

solutions, impression materials, nano needles, nanorobotic dentifrices, hypersensitivity cure, orthodontic treatment, nano composite, nano composite artificial teeth, nano encapsulation, for caries prevention, digital dental imaging, surface disinfectants etc. This publication is widely referenced. Abiodun-Solanke, Ajayi, & Arigbede (2014).

Biocompatibility of Resin Composite Study

Our research on relative biocompatibility of micro-hybrid and nano-hybrid light-activated composite resins showed that nanohybrid composite resin that had a filler content of 74% elicited higher grades of inflammation on the 2nd and 14th days of implantation while micro-hybrid composite that had a filler content of 80-90% exhibited higher inflammatory response on the 90th day of implantation. Arigbede et al., (2017).



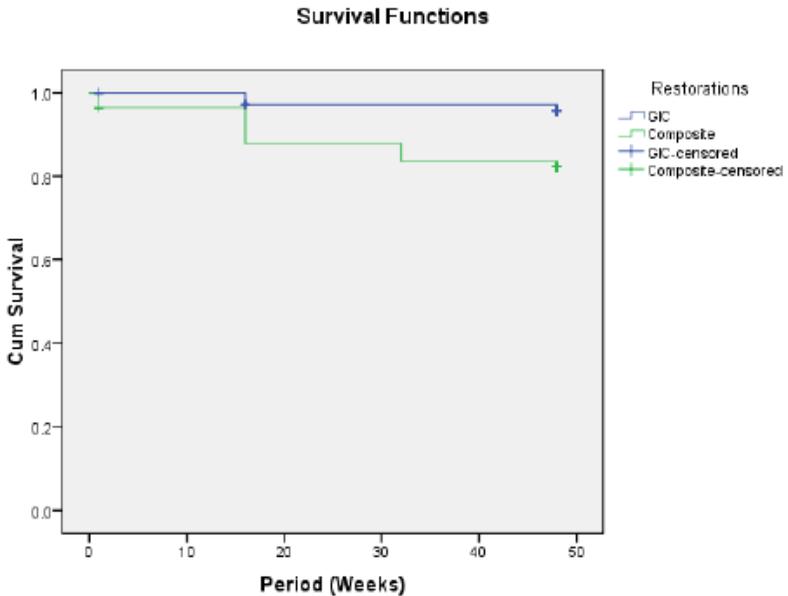
Histology of the Implanted Resin Composites

Performances of Resin Composites and Glass Ionomer Cement

Our research on performances of resin composite and resin-modified glass ionomer cement (RMGIC) in non-carious cervical lesion (NCCLs) restorations showed that the retention rate and marginal adaptation of RMGIC was better and the

material had significantly less dentinal sensitivity. Imemesi, **Arigbede**, & Udoeye (2020).

Log-rank analysis showed that the mean survival time for RMGIC restorations was 47.10 ± 0.77 weeks while that of composite restorations was 42.90 ± 1.48 . Kaplan-Meier estimates showed that the survival time was longer for RMGIC restorations than that for composite restorations. Log-rank analysis also showed that the difference in survival time was statistically significant ($\chi^2=6.95$, $df=1$, $p=.008$)



Log-Rank Test of Survival of RMGIC and GIC

Study on Pattern of Presentation and Possible Predictors of Restoration Failure in NCCLs

In the study titled “Evaluation of pattern of presentation and a group of possible predictors of restoration failure in NCCLs, we were able to show that more NCCLs were found in the older individuals, males, premolars, upper and left side of the arch and that the type of material used for restoration was the only predictor of failure or survival. Imemesi, **Arigbede**, & Udoeye (2020).

Emerging Dental Polymers

Through conference presentations and many continuing education programmes, I was able to draw the attention of colleagues in Nigeria to emerging dental polymers like high performance polymer, polymeric films (PMFs) shape memory polymers and their numerous prospects.

Maxillofacial Prosthetic Rehabilitation

Impact of Acrylic Resin obturator on Speech

Metallic obturator is the recommended definitive obturator design for patients with surgically acquired partial maxillary defects after healing is completed and resorption has stabilised; but this design is not commonly employed in our environment for financial and technical reasons. We were able to demonstrate in the publication titled “Evaluation of speech in patients with partial surgically acquired defects: pre and post prosthetic obturation” published in the Journal of Contemporary Dental Practice that acrylic resin maxillary obturator (non-metallic) retained by wrought wire clasps, which hitherto is generally regarded as a provisional prosthesis significantly improve speech in patients with surgically acquired partial maxillary defect.

In addition, we were able to establish that immediate, interim, and definitive obturators are all important for speech rehabilitation of patients with surgically acquired maxillary

defects and that speech intelligibility is affected by the class of maxillary defect. It was this publication that opened up research in the field of maxillofacial prosthetics in Nigeria.

Prosthetic Obturation of Maxillary Surgical Defect and Facial Aesthetics

Our findings on the outcome of patients' self-assessment of facial aesthetics following prosthetic obturation of surgically acquired maxillary defect showed that the class of surgical defect affected the patients' perception of their facial aesthetics and the data we generated provided baseline information on this subject. **Arigbede et al., (2006).**

Design of Sectional Denture

We designed and reported on a sectional removable denture for a patient with uncommon mandibular resection and presentation. Dosumu, **Arigbede, & Ogunrinde (2007).**



Anterior mandibular resection without reconstruction (Cantor & Curtis Class VI)



Disassembled sectional mandibular denture and the lock



Assembled sectional denture



Denture in the oral cavity

Challenges of Dental Prosthetic Rehabilitation

We were able to articulate the challenges to prosthetic rehabilitation following ablative tumour surgery in a developing economy and these include: poor attitude to denture, poor denture foundation, and lack of expertise for microvascular free flap surgery. Bello, **Arigbede, & Dorgu** (2014).

We also presented our preliminary report on aesthetic outcomes following prosthetic rehabilitation after ablative maxillary surgery based on our experience. Akinbami & **Arigbede** (2012).

Classification of Surgically Acquired Maxillary Defects

We encountered and reported on an additional configuration of a surgically acquired maxillary defect not previously reported. On this basis and the need to have a definite pattern of arrangement, we proposed a new classification. Dosumu & **Arigbede** (2012).

Removable Prosthodontics

Acceptability and Interest in Prosthetic Dentistry

We were able to determine the level of acceptability and interest of dental residents in Prosthetic dentistry many years back. We identified the reasons why the specialty was not popular among Residents and proffered solutions. Dosumu, **Arigbede, & Owoaje** (2006).

Curriculum Review

As a follow-up to the above research, I wrote an opinion paper on the need for immediate restructuring of the Restorative Dentistry curriculum in Nigeria to reflect the international best practices having realized that the defect in the curriculum

contributed significantly to the reason why students, house officers and residents disliked the subject of prosthetic dentistry. **Arigbede (2011).**

This view was later re-echoed by the foremost and internationally acclaimed restorative dentist in Nigeria -Prof. Akpata in a paper titled “Specialist Restorative Dentist: Scope of Practice & Training” presented to the Nigerian Society for Restorative Dentistry (NISORD) in Lagos on 17th May 2019. I am happy to report today that the curriculum of restorative dentistry has been reviewed by the Faculty of Dental Surgery of both the West African College of Surgeons and National Postgraduate Medical College and the anomaly whereby Prosthodontics was limited to the Removable and Maxillofacial aspects only had been addressed. Residents in prosthodontics are now expected, as it is in other parts of the world, to be exposed to and indeed practise all the aspects of Prosthodontics.

Prosthodontic Care of the Elderly

I was able to articulate and present a comprehensive report on the challenges to prosthodontic care in ageing prosthodontic patients and the treatment options available for them in the form of a chapter in the textbook titled “**Oral Health of the Elderly**”, **JO Taiwo (ed), Kerala, India: Research Signpost; 2012, pp 85-103.**

Acceptability of Maxillary Major Connectors

Our research on “Acceptability of maxillary major connectors in removable partial dentures” which happened to be the Editor’s Choice in *African Health Sciences*. 2006; 6(2): 113-117 showed that metal bar major connector was the most acceptable maxillary major connector, and that acrylic resin

plate connector was more acceptable than metal plate major connector. **Arigbede et al., (2006).**

Masticatory Performance and Major Connector Design

We were able to determine and publish the effects of major connector design on speech and masticatory performance. **Arigbede, Esan, Dosumu, & Akeredolu (2009).** Effect of major connector design on speech and masticatory performance. *World Applied Sciences Journal*. 6(6): 849-854.

Removable Partial Denture and Periodontal Health

We were able to further establish that removable metallic partial denture indeed caused increased plaque accumulation and inflammation around the abutment teeth of the removable partial denture wearer. **Arigbede et al., (2009).**

Denture Hygiene

Prof. Taiwo and I investigated and reported on the denture hygiene of 39 elderly denture wearers in Southeast Local Government Area in Ibadan and found that most (82.1%) had poor hygiene but only a few had denture stomatitis. **Taiwo & Arigbede (2012).**

Oral Hygiene Practices among School Children

In addition to the study on denture hygiene, we investigated tooth brushing skills and oral hygiene practices in a selected group of Nigerian school children and found that the commonest brushing technique among them was the horizontal scrub (52.7%) and that only sixteen pupils (14.5%) brushed all teeth surfaces and tongue. The lingual tooth surfaces were the most missed surfaces during cleaning. **Eigbogbo & Arigbede (2020).**

Mouth Odour

One of the implications of poor oral hygiene is mouth odour (halitosis). We contributed to the available literature on knowledge and perception of mouth odour in our environment (**Adeyemi et al., 2009**). Still on periodontal health, we reviewed and published the relationship between periodontitis and systemic diseases. **Arigbede et al., (2012)**.

Denture Impaction

When I arrived Port Harcourt in 2005 following the establishment of the University of Port Harcourt Dental School, I encountered within a short time many cases of denture impaction. I was, therefore, prompted to investigate the characteristics of impacted denture cases not only in Rivers, but also in Nigeria, and we established that poor denture design and maintenance habit were mostly responsible. **Arigbede & Dosumu (2010)**.

Tooth Shade

We were able to establish that the commonest tooth shade (colour) presentation in our centre was Vita Classic A2. This has significant implication when artificial teeth are being ordered for purchase. **Arigbede et al., (2020)**.

Pattern of Demand for Removable Partial Denture in Port Harcourt

Our survey on the pattern of demand for removable acrylic partial denture in the city of Port Harcourt surprisingly showed that more males demanded for upper removable denture and combination of upper and lower removable dentures (**Arigbede & Taiwo, 2011**).

Declining Demand for Complete Dentures

Long before other colleagues began to report a downward trend in the number of elderly patents requesting for complete denture prosthetic rehabilitation, we investigated a five-year experience at Ibadan Dental School and we reported a steady decline in the demand. **Arigbede & Dosumu (2007)**.

Attitude to Anterior Teeth Extraction and Prosthetic Replacement

Furthermore, we investigated and reported the attitude of patients toward anterior teeth extraction and prosthetic replacement at the UPTH Dental Centre, Port Harcourt and found that 86.2% of the patients below 40years either had immediate dentures or replacement within a month as against 50% of those above 40years. **Osagbemi, Akadiri, & Arigbede (2011)**.

Determination of Appropriate Size of Maxillary Anterior Teeth

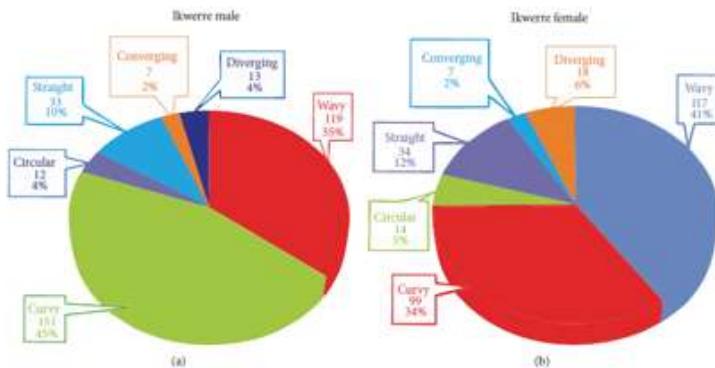
Our research on how to determine the appropriate size of missing maxillary anterior teeth using selected facial anatomic landmarks among a group of subjects in Port Harcourt showed that the width of the philtrum was about the size of one upper central incisor. This is a useful reference material for artificial tooth size selection in our environment (**Arigbede & Igwedibia, 2016**).

Palatal Rugae and Forensic Odontology

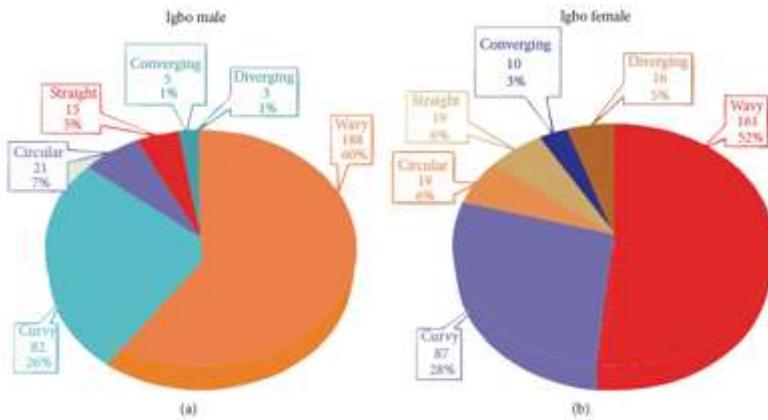
There are several oral anatomical structures of interest to prosthodontists. The interest may be related to their anthropological and forensic significances or their ability to influence denture design. We investigated two of these anatomical landmarks. In our study on palatal rugae, our findings showed that each individual had a different and

unique palatal rugae pattern, the wavy pattern of rugae was higher in females than males and the males had more curve pattern than the females. Ibeachu, Didia, & Arigbede (2014a).

In addition, our comparative study of palatal rugae patterns among Igbo and Ikwerre ethnic groups of Nigeria showed that the Igbos predominantly had a wavy pattern while the Ikwerres predominantly had a curve and straight patterns. More Igbo males (51.6%) and females (59.9%) presented with a wavy pattern of rugae compared to the Ikwerre males (35.6%) and females (40.6%). The difference was statistically significant ($P < 0.05$). Ibeachu, Didia, & Arigbede (2014b).



Distribution of Rugae Patterns by Gender among the Ikwerres



Distribution of Rugae Patterns by Gender among the Igbos

Palatal Torus

From our study on torus (bony protuberance in the oral cavity), we found that torus was more common in the mandible and that the nodular type occurred more frequently in the lower arch while the spindle type occurs more in the palate. In addition, torus was more frequently diagnosed in females. Adeyemi, Dosumu, Kolude, **Arigbede**, & Olowookere (2014.)

Relationship between Anatomical Site and Shape of Tori

Shape	Anatomical sites			Total (%)
	Palate	Mandible	Combined	
Flat	24	13	2	39(14.3)
Nodular	22	90	8	120(43.4)
Spindle	49	16	1	66(25.0)
Multinodular	6	34	1	46(16.9)
Composite	0	0	1	1(0.4)
Total	106(39)	153(56.3)	13(4.8)	272(100)

Dental Caries

The major reason why dental patients present for treatment is pain. Our study in the area of oro-facial pain show that dental caries involving the pulp was the most common source of orofacial pain (296; 63.5%), followed by periodontal diseases (101; 21.7%), tooth (46; 9.9%) and jaw fractures (8; 1.7%), respectively. Omitola & **Arigbede (2010)**.

In one of our community-based studies, we assessed the prevalence of caries using decayed missing and filled teeth (DMFT) index, oral hygiene status using the OHI-S and restorative index [(F/F + D) ×100]. Our findings showed that about 35.1% of the participants presented with dental caries. The mean DMFT for the whole group was 0.67 ± 1.27 . There was no statistically significant difference in the mean DMFT between the males and the females ($P = 0.399$). Majority of the participants had no filled teeth. The restorative index for the subjects was 26.8%. Regarding oral hygiene status, 36 participants (12.5%) had good oral hygiene out of which 25 (69.4%) were females. In 197 individuals (68.4%), the oral hygiene was fair and 111 of these were females (56.3%). Fifty-five participants (19.1%) had poor oral hygiene and 36 (70.6%) of these were males. There was a statistically significant difference between the oral hygiene status ($P = 0.002$) of male and female participants. Even though caries prevalence was low, most of the respondents had fair and poor oral hygiene, which suggests the need to educate and motivate the community towards adopting and maintaining positive oral health attitudes and practices to prevent tooth loss. **Arigbede et al., (2015)**.

In a clinic-based study, we found that most of the patients who presented in our clinic for treatment presented with caries or reversible pulpitis secondary to caries (60.0%) followed by irreversible pulpitis (10.0%). **Arigbede et al., (2011).**

In another clinic-based study on the prevalence of caries, the mean DMFT score for the patients was 3.57. For the females, the mean DMFT was 3.88 while that of the males was 3.08. The difference in the mean DMFT between the two groups was statistically significant ($P=0.026$). The decay (D) component of the DMFT was more than the other components while the filled (F) component was the least. Generally, the females had more decay (D), missing (M) and filled (F) teeth than their male counterparts. The restorative index for all patients was 25.3%. Omitola & **Arigbede (2012).**

Biomedical Education

Performances in Clinical Skills Lab and Real-life Environment

In respect of training in clinical skills laboratory, we reported a weak correlation between performances in clinical skills laboratory and real-life environment and on that basis recommend that conscious and concerted efforts should be made to assist students transferring the skills they acquired on simulators to real life clinical practice. **Arigbede et al., (2014).**

Patterns of Iatrogenic Tooth Damage in Clinical Skills Lab

In another study on dental education, we reported the pattern of iatrogenic damage made by students and residents to the approximal tooth surface during class II tooth cavity preparation in Ibadan Dental School Phantom Heads Laboratory. This information would help trainers to assist students to overcome these challenges. **Arigbede et al., (2014).**

Academic and Psychomotor Skills Performances

I also reported poor correlation between academic and psychomotor skills performances of dental students as it relates to complete denture prosthodontics and therefore recommend that conscious efforts should be made to recognise candidates who lagged behind in psychomotor skills acquisition with the objective of assisting them. **Arigbede (2016)**.

Occlusion and Knowledge of Dental Specialties Studies

We also examined the subject of dental occlusion in relation to Nigerian Dental Schools' curricular and also reported students understanding of the subject (**Arigbede & Dosumu, 2010a**). In addition, we assessed the knowledge of house officers about dental specialties. This was informed by our observation that almost all referral to dental specialists by medical doctors were being addressed to Oral and Maxillofacial Surgeons even when the complaint was not related to Oral and Maxillofacial Surgery. **Omitola & Arigbede (2012)**.

Performances of Dental Students and Prosthodontic Domains

In our national study on performance of dental students in respect of prosthodontic domains of learning, our findings showed that the performance of the students in the three domains of learning: cognitive (67.9%), affective (66.5%) and psychomotor (62%) were closely related and that psychomotor scores correlated positively with cognitive ($r = 0.61$, $p = 0.001$) and affective domain scores ($r = 0.47$, $p = 0.001$). We were able to show further that performances in the domains of learning of Prosthodontics were predictive of future interest in specialising in the subject area of Prosthodontics. **Ikusika et al., (2021)**.

Quality of Referral

Having observed several grossly inadequate referral letters over time, we investigated and reported the opinions of Nigerian dental consultants on ideal content, current quality and attitudes to referral letters with the view of raising awareness, improving quality and professionalism. We discovered that only 6.23% referrals was perceived as excellent, while most of the referral letters, 42.63% (SD±31.51) was reported as adequate. The result shows that response to referral is not always prompt while feedback to referral is hardly provided. Undergraduates are hardly taught the art of reference writing. The consultants agreed that date of referrals, patient's name and address, accurate description of complaints, history of patient's complaints and steps taken by the practitioner so far, should be included in a quality referral. **Arigbede & Dosumu (2010b).**

Review publications

In addition, two restorative treatment options and one diagnostic medium which is not commonly employed for patient management and diagnosis respectively in our environment were brought to the fore in our publications on ozone therapy (**Arigbede, Dosumu, & Shaba 2008**) and use of saliva in the laboratory diagnosis of oral diseases. **Arigbede et al., (2013).**

Antibiotics and Combined Oral Contraceptives Interactions

Having observed that broad spectrum antibiotics are commonly prescribed to patients including ladies without obtaining the history of contraceptive use, we decided to conduct a survey to determine the knowledge of dental surgeons in Nigeria on the implications of prescribing broad-spectrum antibiotics to individuals using oral contraceptives.

We discovered that many of them were not well informed about the potential interaction between antibiotics and combined oral contraceptives (COC) and the extra precautions to be taken when antibiotics is prescribed for ladies on this type of medication. **Arigbede, Adedigba, Adeyemi, & Omitola (2008).**

Cross Infection Studies

On issues relating to cross-infection in dental clinical practice, we reported the behaviour of patients attending a university dental centre based on the awareness of possible HIV cross-infectivity in a clinical dental environment (**Arigbede et al., 2009; Arigbede et al., 2011**); we also reported cross-infection practices among dental technologists in Nigeria (**Arigbede et al., 2013**) and I also contributed to the scanty literature on the impact of COVID-19 on dental education and management. **Arigbede (2020).**

Feedback Studies

The acts of providing feedback are central to the provision of quality medical education; and in fact, it is indispensable in all disciplines and situations where learning and pre-defined standards are expected. Because many medical and dental educators are not trained on the subject, feedback practices are left to the whims and caprices of the lecturers and the trainees. It is on this note that we decided to research the subject area and provide data that would help bridge the existing gaps and thereby contribute to the limited literature that is available in the area of provision of quality feedback in medical and dental education particularly in our environment. In one of the studies, 44.44% of the respondents had offensive feedback. Verbal and one-on-one feedbacks were preferred by 56(57%) and 51(52%) respondents respectively. Majority considered peer feedback as important and most of the respondents

recommended the integration of regular period of individualised, interactive, and constructive feedback into their training. We concluded that the practice of feedback in dental specialty training in Nigeria is generally unsatisfactory. Etim & Arigbede (2023a).

In another study on feedback, we found out that only 28% of the participants provided feedback during practical and only 12% provided feedback after assessment. Furthermore, feedback was mainly verbal and time constraint was the major barrier to the provision of feedback by orthodontic trainers. We therefore concluded that the scope and quality of feedback practice among orthodontic educators in Nigeria were inadequate -Etim & Arigbede (2023b).

We also evaluated feedback practices following Objective Structured Clinical Examination (OSCE) in the University of Port Harcourt (Uniport) and we discovered that there were significant differences between the examiners and students' perception of feedback practices following OSCE in terms of whether ($P=0.009$) and when ($P=0.0014$) it was provided. The majority of the examiners (58.49%) and almost all the students (91.49%) reported that feedback resulted in improved performance. We concluded that feedback practice following OSCE in Uniport was satisfactory in some aspects and deficient in others. We recommended that quality feedback practices should be incorporated into the OSCE process in all medical schools with the intention of improving skills development and learning. Alex-Hart, Arigbede & Chinnah (2023).

Future Research Focus

It is difficult to consistently fabricate functional & aesthetically pleasing prosthesis that restores normal oral and/or maxillofacial anatomy and colour, prompting Ricci & Terracio, (2011) to ask a crucial question, which was, where is dentistry in regenerative medicine? Research is now tilting towards regenerative dentistry – an area that is concerned with dental & supporting tissues regeneration. Modest achievements in this area include the report that an antibody for uterine sensitization associated gene-1 or USAG-1 - can stimulate tooth growth in mice suffering from *tooth agenesis* (failure of teeth to develop) and the development of a novel drug treatment (ReDent) that activates resident stem cells in the tooth pulp to differentiate into specialized cell type (odontoblasts) that produce reparative dentine. ReDent thus promotes self-repair of teeth following caries removal.

It is believed that a time will come when patients who have lost one or more teeth and those with maxillofacial defects will request for a new set of natural teeth or tissues grown in the laboratory instead of lifeless prostheses. I would love to be a participant in this emerging area too.

Mentoring and Contributions to Training

It is a common knowledge that students and residents have a lot of misconceptions about Prosthodontics. I have made conscious efforts over the years to disabuse the minds of students and residents through a simplified approach to the teaching and practice of Prosthodontics. It is reassuring to see these students and trainees excel in Prosthodontics during their respective professional examinations. Apart from undergraduate education, I am actively involved in the residency training in our teaching hospital and biomedical education programme of the College. I have successfully co-

supervised Master's degree, PhD and Part II Fellowship projects.

I have worked with Port Harcourt University Dental Students Association (PUDSA) in one capacity or the other, right from the first set till date. I may not be able to estimate the impact I have made on these promising individuals, but I have lost counts of the number of awards I have received from the Association.

Some Memorable Events with the Students



My Activities in the University

When I joined the services of the University of Port Harcourt on June 1st 2005, the pioneer Dean was the only academic staff on ground. As at today, therefore, I am the longest serving

academic staff in the Faculty of Dentistry; the University has officially recognised me for this achievement.

Although I was officially coordinating the Department of Restorative Dentistry at that time, I was also actively involved in scouting for and recruiting academic staff for the whole Faculty. My house was a transit residence then for some of the academic staff who agreed to come to Port Harcourt. I was also involved in the recruitment of the pioneer technical staff in the Faculty, the late Mr Ocheke of blessed memory. He transferred his service from Obafemi Awolowo University, Ile-Ife.

I served and I am presently serving as a member of many Committees, for example:

- Committee on Continuing Medical Education for General Practitioners, College of Health Sciences, University of Port Harcourt, 2008
- Senate Committee on Academic Policies and Programmes (SCAPP), 2010 till 2017
- MBBS Curriculum Review Committee (2014)
- College Website Development Committee (2015)
- Local Affiliations and University-Wide Local Accreditation Centre
- Committee to Prepare a Position Paper for College Academic Board on Maintaining a Culture of Quality Assurance in Assessment

I also served as a member of Basic Studies Unit Board and I am a member of the Faculty of Dentistry and College of Health Sciences Academic Boards.



1st Set of Students



Dental Faculty & the 1st Set



College Management



Profs Arigbede & Omitola
Presenting College Award
to Prof. Okoisor



Prof Arigbede Performing
an Official Duty as Dean



PUDSA President Donating
Signpost to the Faculty

I assisted the pioneer Dean to sketch the drawing of the Faculty of Dentistry building which was later abandoned without any consultation in favour of a smaller building without classrooms and laboratory spaces. This was the reason why an administrative building and a supplementary classroom/laboratory building were erected for the Faculty right from inception contrary to the original plan. When the administrative building became too small to accommodate the staff and the structural challenges were becoming too many a few years back, in my capacity as the Dean, I made passionate appeals through the Provost, Prof. Iyeopu Siminialayi to the Vice Chancellor then, Prof Ndowa Lale who graciously promised to give us a new Faculty building. He mandated us to present a sketch of what we wanted to the Director of TETFund Project. We came up with a design and the Provost personally presented the document in my presence. Just like it happened before, the plan was again abandoned without

consultations. That is how the Faculty ended up having three buildings that do not meet our expectations. My deep appreciation goes to Prof N. Lale for fulfilling his promise in no time during my tenure.

Apart from securing an additional building block from the university during my tenure, a few academic staff were also employed. Proposal to commence academic postgraduate programmes was developed during my time in office and handed over to the new Dean. Our Dentistry Day programme was successfully organized twice during my tenure and the proposal to change the departmental nomenclatures to reflect global standard was duly approved by the university after my tenure.

Challenges of Prosthodontic Training and Practice

- i. Training in maxillofacial prosthodontics subspecialty cannot be completed in any institution in Nigeria presently. As it is often done in Neurosurgery and Cardio-Thoracic Surgery, some form of training and exposure is required abroad. The same thing applies to the dental technological aspect. This explains why this subspecialty is the least developed in Nigeria.
- ii. Maxillofacial implants which are fundamental for retention of maxillofacial prostheses are not provided in any teaching hospital in Nigeria. Although placement of the conventional oral implants is a routine in many teaching hospitals and private dental clinics.
- iii. Rehabilitations of oral and maxillofacial defects are sometimes suboptimal in our environment because the available materials and technology are inadequate to provide functional, durable and aesthetic prosthesis.

- iv. Training and practice of the subject is also hampered by inadequate number of experts in the field. There are less than twenty Prosthodontists in Nigeria presently.
- v. Inadequate equipment, materials and poor maintenance culture.
- vi. Out-of-pocket payment- Many of the people who require maxillofacial prosthesis after surgery cannot afford standard prosthetic care.

Recommendations

- i. I strongly recommend the establishment of a Maxillofacial Training and Dental Materials Institute here in Uniport to provide academic and professional training in the field of Maxillofacial Prosthodontics, Dental Materials, Maxillofacial Surgery/ Implantology, and Maxillofacial Technology. The institute will not only enhance training and research; it will also further position our University on a higher pedestal and boost its fund generation drive.
- ii. No institution offers MSc degree programme in the Science of Dental Materials presently in Nigeria, talk less of a PhD. We can be the first. A robust collaboration with the Faculties of Science and Engineering is the basic requirement.
- iii. The Faculties of Dentistry and Engineering and the Teaching Hospital can collaborate in the area of dental equipment maintenance and training. The arrangement should be clear, solid, and fair to the staff and the two institutions. We have tried some of our engineers before, they did not disappoint! but reasonable incentives are needed to guarantee commitment.
- iv. Subsidised treatment should be considered for all categories of cancer and maxillofacial prosthetic cases.

Conclusion

Mr. Vice Chancellor, Sir, advancements in material science, robotic technology and artificial intelligence have enabled the fabrication of smart body parts. For example, intelligent prosthetic arm (PARM), smart bionic limbs and eyes, etc. Nonetheless, our fabrications can still not be compared to the natural body parts and besides, we still have a long way to go to make every patient happy.

Finally, Mr. Vice Chancellor, I have presented to you today my stewardship in the specialty of PROSTHODONTICS where I have been **“WALKING IN HIS STEPS”**.

As I conclude, Mr. Vice Chancellor, sir, I would like to note that even though what we fabricate in Prosthodontics are artificial and we make them look real as much as possible, this should not be misconstrued in any form to mean that Prosthodontists are liars. As a prosthetic dentist, I shall continue to “Walk in His Steps” to attain greater heights.

This is my pledge!!!

I thank you all for your audience.

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CITATION ON



PROFESSOR ABIODUN OLABISI ARIGBEDE
BDS (Ib), MSc Biomed Ed (Ib), FWACS, FMCDs, FICS, FICD

Prof. A.O. Arigbede was born on the 23rd of Dec 1966 in Modakeke, Osun State to the family of late Pa. Joseph Oladipupo Arigbede and Mrs. Rachael Ibijoke Arigbede of Ajana Owa Compound, Ipoti Ekiti. He attended Baptist Day Pry School, Modakeke, Osun State from where he proceeded to Ipoti High School, Ipoti Ekiti for his secondary school education. He was the Assistant Senior Prefect of the school in the final year and a member of the school football team. He studied Dental Surgery at the Nigeria Premier University (UI), and bagged BDS Degree of the university in 1997 and MSc degree in 2012. He had his residency training at UCH in the specialty of Prosthodontics. He passed the Part II exams of the West African College of Surgeons and National Postgraduate Medical College in October and November 2004 respectively and thus became the 1st dental surgeon to achieve the feat in any Nigerian-based training institutions. He also trained under the famous Prof. D.C. Watts of the University of Manchester in the area of Science of Dental Materials.

Our inaugural lecturer started his carrier as a young academic in the University of Port Harcourt on June 1st 2005 and rose through the ranks to became a professor in 2016. He was the 5th Dean of the Faculty of Dentistry. Prof. Arigbede has successfully supervised candidates for MSc degree, PhD degree and Part II Fellowship of the West African of Surgeons. He has over 70 research publications in local and international peer review journals.

Prof. Arigbede had served as the President of the Nigerian Association for Restorative Dentistry (NISORD) and Deputy Chairman, Medical Advisory Committee in UPTH. He had also served as external examiner to many universities in Nigeria. He is presently an external examiner to the University of Ghana. He was the recipient of Toshio Nakao Fellowship award of the International Association for Dental Research (IADR) in 2007. He is happily married to a virtuous woman, Mrs. Foluke Olayemi Arigbede and the family is blessed with a beautiful daughter. Mr. Vice Chancellor, Sir, distinguished members of the university community, esteemed guests, ladies and gentlemen, I present to you the man of the moment, a distinguished academic, a remarkable mentor, an astute administrator, a model of hardworking and excellent professional, a respected prosthodontist, a firm but kind gentleman, an epitome of grace, a family man, Prof. Abiodun Olabisi Arigbede our inaugural lecturer of today.

Professor Owunari A. Georgewill
Vice-Chancellor