



PREFERRED MODE OF MEDICAL KNOWLEDGE DISSEMINATION TO MEDICAL STUDENTS DURING THE COVID-19 ERA: A CASE STUDY OF CALABAR MEDICAL SCHOOL, NIGERIA.

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Abstract

Objective: Corona virus disease 2019 (COVID19) has drastically changed the course of events. Global activities have been disrupted on all sides following the COVID19 pandemic. The delivery of medical student education changed rapidly during the COVID 19 pandemic. Medical education has been grossly affected by the alteration in academic calendar due to COVID19 pandemic. This has led to a deviation from the native ways of teaching and medical information delivery among medical and dental students. This study aims to assess the effect of COVID19 on medical education.

Design: This was a cross-sectional observational study.

Place and Duration of Study: The study was done and conducted at the College of Medical Sciences at the University of Calabar. The study which had a 3-month duration, started July 30, 2020 and ended 30th October 2020.

Methodology: Using a well-structured detailed questionnaire, one hundred medical and dental students from the College of Medical Sciences were requested to fill and give reasons for the preferred mode of information dissemination they desired which was beneficial to them during the COVID 19 era.

Results: A total of 100 (hundred) students participated in the study; which was made up seventy(70) students of the Faculty of medicine and thirty(30) dental students from the Faculty of dentistry. This was equal to a total of 65 males and 45 females. Many of the students (91%) of them were of the opinion that they preferred face-to-face interaction and learning. Five percent (5%) of them opted for virtual form of learning; while 4% opted for a combination of both virtual and face-to-face interaction. This was based on the fact that it was more interactive, less expensive, it enhanced student-teacher relationship, devoid of distractions, better interaction between teacher and students, better expression of teacher, increased feedback and reduction in the cost of data.

Conclusion: This study goes to show that the delivery of medical education has changed drastically. COVID-19 pandemic seems to herald a new chapter in future of medical training of students.

Keywords: COVID19, medical, pandemic, students, information.

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1. Introduction

The Advent Of Corona Virus Disease 2019 (COVID19) Changed The Course Of Events Globally^{1,2,3}. Virtually All Aspects Of Human Endeavour Have Been Affected By This Scourge That Has Ravaged All Parts Of The World⁴. The Health Industry, Financial, Social, And Other Aspects Of Human Activities; Inclusive Of Education, Have Been Grossly Affected By COVID-19 Pandemic. This Has Led To Job Losses, Alteration Of Academic Calendars, Depreciation Of Economic Activities, And Even Loss Of Lives^{5,6,7,8}.

Medical Education, Like All Other Forms Of Education Requires Utmost Skill In Information Delivery^{9,10}. This Involves Whole Lot Of Diligence, Carefulness And Seriousness In Its Delivery^{9,10}. All Over The World, Medical/Clinical Students Require Intensive Exposure To Their Course. This Also Implies That, The Mode Of Knowledge Dissemination Or Delivery Is Important In Getting The Information To The Students Involved. The Structure Of Medical Education Is Such That It Is Divided Into Clinical And Preclinical Sections Or Phases. During The COVID19 Era, Many Public And Private Learning Environments Were Shutdown. Many Government And Private Libraries Were Also Closed. The COVID19 Pandemic Affected Even Normal Lectures, Examinations And Assessment^{12,13}. These Altered The Normal Academic Training Of Medical Students^{11,12,13}.

The Closure Of Schools Was Part Of The Modalities Adopted By Many People In Controlling The COVID-19 Pandemic. The Governments Of Many Nations Directed A Stay-At-Home Order Which Aimed At Curbing The Spreading Of The Pandemic. Consequently, Students Of The College Of Medical Sciences Were Deeply Affected As There Was No Formal School For About One Year. The Stay-At-Home Order Also Made Schools To Look For Alternative Ways To Disseminate Medical Knowledge, Information And To Teach Their Students. This Led To A Shift From The Traditional One-On-One Teaching Method/Face-To-Face Teaching To

Online Measures. Also, A Combination Of Both Online And Face-To-Face Learning Platforms Existed In Many Locations Existed. As The Online Learning Progressed; It Was Seen In Many Climes As The Ideal Way Of Learning During The COVID-19 Pandemic Period. The Online Learning Was So Emphasized Since It Is Gave Room For Social Distance (One Of The Modalities Of Preventing COVID-19). Following The COVID-19 Pandemic, This Study Was Done To Assess The Impact Of COVID-19 On The Mode Of Delivery Of Medical Information, And Teaching Of Medical Students From A Tertiary Health Institution In Southern Nigeria.

2. Materials/Methods

The Study Was Conducted At The College Of Medical Sciences, University Of Calabar, Calabar, Nigeria. It Was A Cross Sectional Study Conducted During The COVID-19 Era (The Study Started July 30th, 2020 And Ended October 30, 2020 After A 3-Month Period). The College Of Medical Science Is A Foremost Training Medical School With Five Faculties. It Is Located In South-South Part Of Nigeria. A Self-Administered Printed Questionnaire Was Generated Using Google (Google LLC, Mountain Views, CA). This Survey Questionnaire Had A Some Series Of Open And Closed Questions, Made Up Of Demographic Data And Experience With COVID19. The Target Population Was The Medical And Dental Clinical Students Of The College Of Medicine From 400level To 600level. A Well-Structured And Detailed Questionnaire Was Used With Parameters Covering Demographic Indices. The Ages Of Medical Students Were Between 20 To 25 years. Data Collected Were Analysed By A Statistician.

3. Results

A Total Of 100 (Hundred) Students Participated In The Study; Which Was Made Up Seventy(70) Students Of The Faculty Of Medicine And Thirty(30) Dental Students From The Faculty Of Dentistry (See Figure 1). This Was Equal To A Total Of 65 Males And 45 Females. Features Are Represented By Figure 2 Below.

Figure 1.Bar Chart showing the study groups

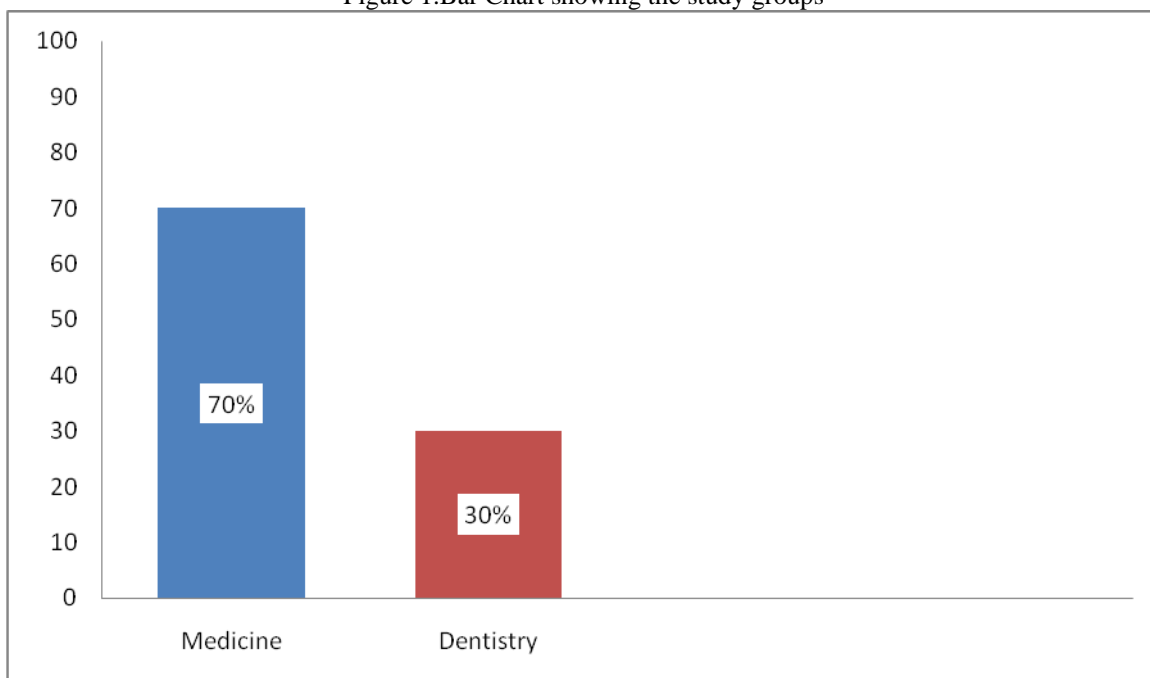
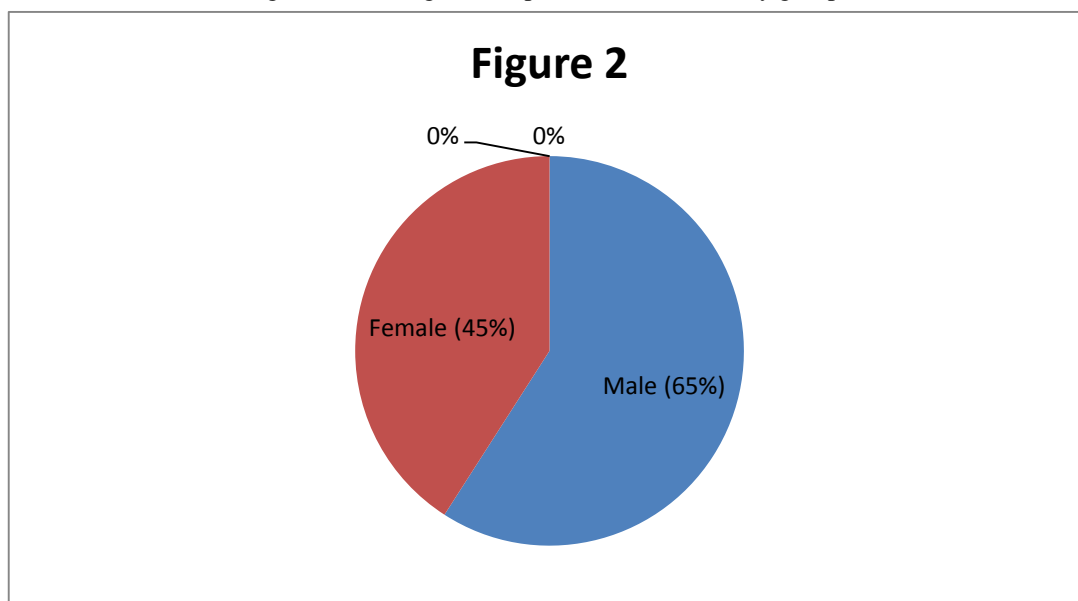


Figure2: Showing the sex prevalence of the study groups



Many of the students (91%) of them were of the opinion that they preferred face-to-face interaction and learning. Five percent (5%) of them opted for

virtual form of learning; while 4% opted for a combination of both virtual and face-to-face interaction.

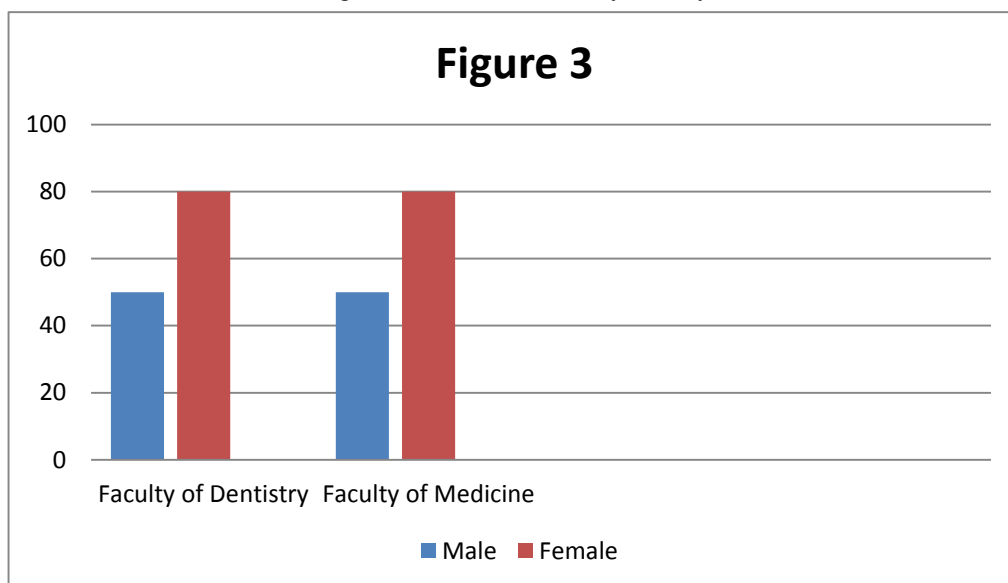
TABLE 1: Distribution of various preferred modes of Information dissemination

FACULTY	NUMBER (%)	SEX		PREFERRED		COMBINED (V and FTF)
		M	F	v	FTF	
Dentistry	30 (30%)	M=10	F=20	r=1	FTF=27	2
Medicine	70(70%)	M=65	F=25	v=4	FTF=64	2
TOTAL	100(100%)	75	45	5	91	4

KEY:

FTF = Face -to-face lectures, M=male, F=female ,
V= Virtual lectures

Figure 3: Sex distribution by Faculty



4. Discussion

COVID-19 affected medical education in no small measure. The obvious effects of COVID-19 may forever change how future educators are educated.¹⁴ COVID 19 has restructured medical education, though this is disruptive for medical students ,yet,it reflects that a paradigm shift in the traditions of medical education may be required.¹⁵ Medical education has been severally disrupted by cancellation of exams and lectures due to closure of schools following COVID19 Pandemic^{11,12,13}. This has affected medical lectures, exams and research^{15,16}. Also, academic calendar, clinical posting and examination have been deeply affected¹⁷. From time immemorial, social function affects education as alongside political instability, harsh weather condition and health challenges globally¹⁸. Responses by medical school have been varied. The closure of schools and library forced many students to access alternative unaccustomed learning format.¹⁸ This response is an interplay between the medical students and the medical educators. The social media has proven to be one of the optimal sources of information for medical students; which is not in tandem with their future career as doctors.¹⁸ Medical education quickly transitioned to online formats in basic sciences, health system and even in behavioural sciences. Even medical examination has been transitioned to online format. The challenges of online learning is the legitimate concern regarding honesty and fairness of these exams.¹⁹ The traditional method of convening medical students in a physical location

has been challenged by the global COVID19. This is so as social distance has been the order/mainstay of prevention of viral transmission. The hallmark of social distancing does not affect social distancing is seen as the most effective way of preventing one-on-one transmission of COVID19²⁰. The hallmark of social distances involves abolishing gathering of either in lectures halls or even in small groups. This led to transition to online lectures. This research finding is in tandem with findings with other researchers. Various people preferred the face to face interaction of lectures as against the virtual format. This is so for may reason ranging from the fact that it is more interactive, less expensive, enhanced student-teacher relationship, devoid of distractions, better interaction between teacher and students, better expression of teacher, increased feedback and reduction in the high cost of data. Hindrances to virtual presentation as highlighted by the students and range from power failure, increased data consumption, poor internet connection, organisational failure, poor interest experience by users, network disruption. Virtual format also has its advantages. These ranges from comfort, multi-tasking, convenience, more time for reading, less risk of getting infected and less distraction by participants. This study goes to show that the delivery of medical education has changed drastically.COVID-19 pandemic seems to herald a new chapter in future medical practice – the role of artificial intelligence, telemedicine and robotics is increasing in use. Virtual learning has come to the rescue of face-to-face teaching at this era of COVID-19. However, it requires a lot of attention

on both parties –the medical educator and the clinical student. In the long run, it is possible that the COVID-19 pandemic may represent an enduring transformation in medicine with advancement of telehealth, adaptive research protocols and clinical trials.¹⁴

5. Conclusion

COVID-19 pandemic has restructured medical education. Though this disruption for medical students, yet, it reflects that a paradigm shift in the tradition of medical education may be required. This study goes to show that the traditional one-on-one interaction of teaching and medical education delivery still stands as the preferred mode of medical information delivery and dissemination.

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