



Awareness and Adoption of Telemedicine among Undergraduates of Chukwuemeka Odumegwu Ojukwu University.

Chibugo Judith Okara¹, ²Shehu Abdulkadir Abdullahi, ³Anataogu Helen Nwanneka, ⁴David Oluwafemi Ibikunle, ⁵Maryann Seyram Adabra, ⁶Onukak Wisdom Okon.

¹Chukwuemeka odumegwu ojukwu university, judithugo20@gmail.com

²Federal Polytechnic Bauchi, sabdulkadir240@gmail.com

³Chukwuemeka odumegwu ojukwu university, helennwanneka8@gmail.com

⁴Obafemi Awolowo University, davidibikunle0@gmail.com

⁵Wisconsin International University College, Accra Ghana, maryannadabra2018@gmail.com

⁶ University of Cross River State, onukakwisdom054@gmail.com

DOI : <https://doi.org/10.55248/gengpi.5.1124.3242>

ABSTRACT

The study investigated the awareness and adoption of telemedicine by undergraduates of Chukwuemeka Odumegwu Ojukwu University (COOU) Igbaram. The specific objectives of the study were to determine the extent of awareness of telemedicine by undergraduates of COOU; to investigate the extent of adoption of telemedicine by undergraduates of COOU; and to ascertain the effectiveness of telemedicine in managing health challenges among undergraduates of COOU. The study is anchored on technology acceptance model (TAM) and the theory of planned behavior (TPB). The study adopted survey research design. The population of the study comprised the undergraduate students of the Chukwuemeka Odumegwu Ojukwu University, Igbaram and a sample size of 300 undergraduates was selected for the study. The data were analyzed using frequency tables and simple percentage analysis. The study found that undergraduates of COOU are aware of telemedicine and what its entails. The results also indicate that undergraduates of the university have has adopted telemedicine. The study also found that telemedicine is very effective in managing health challenges among undergraduates of COOU. Based on the foregoing, the study concludes that undergraduates of COOU have has adopted telemedicine which is very effective in managing health challenges. The study recommends amongst others that there is need to build proper and effective communication channels and awa

INRODUCTION

Information and communication technology, ICT, has revolutionized many aspects of modern technology, including the health care industry. The importance of telemedicine especially in remote areas and secluded population cannot be overemphasized. In the modern world, telemedicine a medical service made possible through information and communication technology (ICT) is rapidly evolving, particularly during the COVID-19 outbreak. The logical development of health services in the digital age is telemedicine. It literally translates to "healing from distance," a phrase that is frequently used to refer to the provision of healthcare as well as research, education, health surveillance, and promotion (Rupa, Mohit & Shipra, 2020). telemedicine/telehealthcare are cost efficient and gives rural dwellers access to medical treatment. People who don't have access to healthcare services in their local locations can now receive them with the evolution of telemedicine, which offers a novel way to offer healthcare services across geographic boundaries.

Many hospitals, large healthcare systems, health insurance companies, and governments worldwide are using telemedicine to provide healthcare solutions as a result of the development of newer technologies like the Internet of Things, fast internet bandwidth, artificial intelligence, including devices that allow doctors to measure temperature, oxygen, pulse rate, and even chest X-rays online.ng Assistant It might be difficult to provide healthcare in a place like Nigeria with vast geographic distances and few resources through lowering re-admission rates, telemedicine can lessen the strain on hospitals (Wootton, Vladzmyrskyy, Zolfo & Bonnardot, 2011). Through the use of telemedicine services, patients can consult with physicians from the convenience of their own homes and, in some cases, follow their recommendations to take care of themselves.

In situations where people are exposed to contagious disease, telemedicine can provide safety to patients, medical professionals, and physicians. One of the best examples is the usage of telemedicine services during the Coronavirus pandemic. The general growth and advancement of health systems depend on ensuring that everyone has equal access to high-quality treatment and digital health. According to Alajlani and Clarke (2013), telemedicine offers the Middle East and North Africa the opportunity to provide healthcare between physically separated locations through the use of information and communication technologies, facilitated by medical healthcare practitioners. Meeting the needs of healthcare consumers or users is the

goal of telemedicine, and it should be able to meet the necessary healthcare criteria. By facilitating accessibility and boosting employee productivity by eliminating the need for patients to travel to visit them, telemedicine can improve healthcare delivery and patient outcomes (Azin & Amnie, 2020).

Research on using telemedicine technologies to improve health care models for patient requirements is expanding quickly.

Health challenges among university students are of major concern in Nigeria . A high number of university students are exposed to different health issues which most often cannot be resolved within the university environment due to the remoteness of the university environment and non-availability of well equipped hospitals within the university environment. The effects of these can be devastating on the students if not properly managed. Mobile phone ownership and internet availability within the university environment is rapidly increasing and is providing opportunities to attend to the health needs of the students especially through telemedicine. Telemedicine offers healthcare using digital devices such as computers and smartphones. affords it students the opportunity to quickly and conveniently access healthcare services and related resources instead of having to go to a clinic or see a health care provider. However, the awareness and adoption of telemedicine among undergraduate students of Chukwuemeka Odumegwu Ojukwu University remain unevaluated.

Objective of the Study

- Determine the extent of awareness of telemedicine by undergraduates of Chukwuemeka Odumegwu Ojukwu University Igbariam.
- Investigate the extent of adoption of telemedicine by undergraduates of Chukwuemeka Odumegwu Ojukwu University Igbariam.
- Ascertain the effectiveness of telemedicine in managing health challenges among undergraduates of Chukwuemeka Odumegwu Ojukwu University Igbariam.

1.4 Research Questions

1. What is the extent of awareness of telemedicine by undergraduates of Chukwuemeka Odumegwu Ojukwu University Igbariam?
2. To what extent is telemedicine adopted by undergraduates of Chukwuemeka Odumegwu Ojukwu University Igbariam?
3. How effective is telemedicine in managing health challenges among undergraduates of Chukwuemeka Odumegwu Ojukwu University Igbariam?

1.5 Scope and Limitations of Study

This study examined critically the respondents' awareness and exposure to telemedicine; the acceptability and adoption of telemedicine among undergraduates; and the effectiveness of telemedicine in handling health challenges among Chukwuemeka Odumegwu Ojukwu University Students. This study was carried out at Igbariam Campus of the university and only the undergraduate students were covered.

2.2 Theoretical Framework

The theory was prounded by Davis (1989) the technology acceptance model (TAM), an information systems theory that simulates how people adopt and utilize a technology. This model's objective is to predicts a tool's acceptability and highlight the changes that need to be made to the system to make it user-friendly. According to this model,perceived utility and perceived ease of use are the two primary determinants of an information system's acceptability. They asserted that a user's perceived ease of use is still a significant factor in determining perceived utility as experience grows, but it loses significance in terms of behavioral intention to use the new system (Venkatesh & Bala, 2008).Consequently, the theory of technology acceptance by Davis's is crucial for gauging how students behave when it comes to telemedicine. The model illustrates how widely a new technology (telemedicine) is accepted and how certain circumstances affect its use. Another popular behavioral model is the Theory of Planned Behavior (TPB). It aids in our comprehension of how people's conduct might alter. The model predicts intentional conduct because it presumes that behavior is planned (Ajzen, 1991). A related model called the TRA is the ancestor of the TPB (Ajzen & Fishbein, 1975).Following the addition of perceived behavioral control to the model in response to the recognition that behavior is not always completely voluntary and under control, the theory was named the TPB. According to the TPB, any action a person takes is influenced by three types of factors: normative beliefs, which are beliefs about the normative expectations of other people; behavioral beliefs, which are beliefs about the likely results of the behavior being practiced; and control beliefs, which are beliefs about the existence of factors that may help or hinder the behavior being performed.. ICT is has become commonplace component of the healthcare setting. It is employed in high- and low-resource environments, as well as in urban, rural, and remote locations. Additionally, ICT has grown into a major component of some medical specializations. For example, "telepsychiatry" is the term used to describe the use of ICT to provide care in psychiatry (van Dyk, 2014). As a result of this increased interest, several words have been developed to characterize the use of ICT in healthcare. The most popular ones are "e-health," "mhealth," "telemedicine," and "telehealth." Each areas of health and medicine discusses a different facet of ICT use in healthcare, but they all touch on the idea of using technology to supplement or replace traditional means of patient-provider and health system communication and care (Bashshur et al., 2011).Here the focus of study is telemedicine. . One aspect of telemedicine is M-Health,coined refers to medical and public health procedures that are facilitated by mobile technology, including PDAs, cell phones, patient monitoring devices, and other wireless gadgets. "Mobile devices" are portable gadgets that can be used to send text, audio, and video health information remotely. Global positioning systems (GPS), 3G and 4G network connectivity, general packet radio systems (GPRS), and Bluetooth-based features are some of the communication techniques they use to accomplish this (Bashshur et al., 2011).

Video conferencing is the most common method used in telemedicine (Anil, Manju, Kannan, Himiki & Divija, 2022). Nonetheless, some healthcare professionals decide to give services through phone calls or emails. Telemedicine includes both clinical and non-clinical applications, according to Field (1996). Clinical uses of telemedicine include patient care, which includes diagnostic, therapeutic, and other medical services. Continuous medical education and administration that does not entail making judgments regarding patient care are examples of non-clinical applications of telemedicine (Field, 1996).

Furthermore, According to El Taguri et al. (2008), the World Health Organization (WHO) stated in its global observatory for e-Health series (WHO, 2010) that telemedicine, which literally translates to "healing at a distance" and was first used in the 1970s, is the use of information and communication technology in healthcare to enhance patient outcomes. telemedicine according to Demiris (2003), is the transfer of medical information via electronic communications between locations for the benefit of the patient's or healthcare provider's health and education, with the aim of enhancing patient care. Alajlani and Clarke (2013) defined it as the application of ICT to expand access to healthcare services and get over geographic restrictions.

the use of telemedicine technologies, such as smartphones loaded with medical software, users can improve the collection, analysis, and sharing of data. When text is combined with high-quality photos and video, health data can be gathered more thoroughly. Health care can become more efficient by using the Internet to enable remote video-linked clinical conversations to speed up the sharing of complex patient data, particularly when patients and doctors live far apart, reducing the expenses related to long-distance travel, such systems can also improve the efficiency of healthcare (Wootton, Vladzmyrskyy, Zolfo & Bonnardot, 2011).

Relevance of Telemedicine to Students

For conveniences in consumers are now required to make appointments for phone or video consultations with their healthcare provider, and more doctors are letting consumers "see" them on their computers and smartphones. The following are some ways that telemedicine can help students:

Comfort and Convenience: When students are ill, telemedicine eliminates the need for them to travel to the doctor's office or clinic, park, walk, or wait in a waiting area. Students can visit their physician in the convenience of their own homes. It may be simpler to accommodate virtual visits into their hectic schedule. Students may not even need to take time off from school due to telemedicine, depending on their schedule (Ayatollahi, 2015).

Control of Infectious Illness: Telehealth allow doctors to test patients for possible infectious diseases, preventing the spread of infections like the flu and COVID-19. It also removes the need for unwell people to come into work. Less exposure to other people's germs is beneficial for everyone, but it is especially beneficial for the elderly, pregnant, immunocompromised, and chronically ill (Rupa, Mohit & Shipra, 2020).

Better Assessment: Since telemedicine enables them to see patients in their homes or educational institutions, some specialized practitioners may find it advantageous. For instance doctors can easily spot allergic triggers through recognizing environmental cues that induce allergies. Neurologists, physical therapists, and occupational therapists can observe and assess students' self-care and navigation skills in classrooms. It can help to evaluate patients mental health (Anil, Manju, Kannan, Himiki & Divija, 2022).

Lower Cost: The costs of visiting a doctor or therapist can be high, even for people with sufficient health insurance. However, telemedicine consultations are generally less costly than in-person ones. This removes a care barrier and reduces out-of-pocket costs.

Medical Access for Students in Rural Areas: Telemedicine offers a convenient option for students who reside far from the closest medical facility to see a doctor. When driving conditions are less than ideal, like during a thunderstorm or hailstorm, this saves time and enables students to avoid the road (Alajlani & Clarke, 2013).

2.3.5 Challenges in Modern Healthcare and Telemedicine

There are several significant obstacles facing the contemporary health care system. Globally, communities' resource consumption and health care requirements are evolving. Life expectancy is rising and populations are getting older. This is accompanied by an increase in the incidence and consequences of chronic, non-communicable, and incapacitating diseases as opposed to acute, lethal ones (Cusack, Pan, Hook, Vincent, Kaelber & Middleton, 2008). People requires more continuous, long-term care for complicated, coexisting illnesses and short-term treatment for individual illness. Primary health care services have high demand, leading to a run out in health care resources. This is particular to remote areas, where the average burden of chronic diseases is larger than that of metropolitan populations. Health systems must change to deliver more comprehensive, sustainable, and efficient care models than those employed in the past in order to satisfy the demands of modern populations (Hamilton, Gibberd, & Harrison, 2014; Reeve et al., 2015).

It has been acknowledged that telemedicine has the ability to support the development of care models that address the demands of modern healthcare. The quality, scope, and accessibility of patient data can all be enhanced by technology. Additional patient data can guarantee more thorough individualized care, lowering the burden on primary care services, telemedicine can help increase the sustainability of health systems. Remote patient monitoring can promote preventative health practices and help avoid time wastage and resources. Additionally, telemedicine platforms can promote increased cooperation amongst medical professionals to address complicated patient needs without requiring them spend time and resources in long-distance travel. (Ackerman, Filart, Burgess, Lee, & Poropatich, 2010; Cormick et al., 2011). Academic and governmental organizations have expanded their investments in research into the potential advantages of telemedicine systems for health systems as a result of this recognition.

2.3.6 Empirical Review

To find the gap in the literature, relevant empirical literatures were reviewed in this part. Prateek, Anandhi, Ruby, Disha, and Nupur (2021) evaluated medical and inclined healthcare students enrolled in private universities' knowledge, attitudes, and readiness to use telemedicine. In India, a cross-sectional survey of healthcare students was carried out between May 10, 2020, and June 30, 2020. Non-Probability Convenience Sampling was used to choose 428 people, who were contacted via online Google Forms. The study was analyzed employing survey descriptive statistics. The findings show that 52.1% of the population was unaware of the use of telemedicine, and 43 percent of the public as a whole acknowledged insufficient knowledge about it. Nonetheless, 90.9% of respondents said telemedicine was a practical strategy and expressed willingness to employ and incorporate it into their practice going forward. It was shown that their propensity to utilize telemedicine in their careers was influenced by their opinion of it. According to the study, for telemedicine to be successful, appropriate and efficient channels of communication as well as awareness among users, professionals, and students must be established.

Anil, Manju, Kannan, Himiki, and Divija (2022) conducted a cross-sectional study on Kerala doctors' knowledge and proficiency in contemporary telemedicine practices. Using a standardized questionnaire created specifically for the study, 535 modern medicine doctors in Kerala participated in the study between June 2020 and May 2021. The awareness and skill total scores were computed and categorized as good, moderate, and bad. The Chi-square test and Fisher's exact test were used to analyze the collected data and determine their significance. According to the results, the majority of participants (80.56%) had a moderate level of awareness regarding telemedicine, while 15.89% had an excellent level of awareness. Additionally, 46.54% of respondents said that practicing telemedicine required specialized software knowledge. The study comes to the conclusion that more webinars or workshops are required to enhance the knowledge of doctors practicing modern medicine, despite the fact that their awareness and proficiency are favorable.

Azin and Amnie (2020) conducted a study on American medical students' knowledge and perceptions of telemedicine. The aim of this study was to investigate the views and experiences of medical students with regard to telemedicine. 287 medical students from 20 different allopathic medical institutions in the US were given an online survey. The 14 questions in the poll asked centered on demographics, exposure to telemedicine, interest, and future usage plans. Only 17.4% of medical students have ever encountered telemedicine, according to the study's findings. However, students' perceptions of telemedicine were influenced by their growing exposure to the technology, which also helped them become more aware of it. Finally, all planned specialties showed interest in using telemedicine in the future, with the highest levels of interest shown by specialties like pathology, psychiatry, ophthalmology, and dermatology. As more medical students express interest in using telemedicine, the study suggests that telemedicine education and exposure will become more and more crucial.

In 2020, Rupa, Mohit, and Shipra conducted a study to evaluate college-bound Uttarakhand students' attitudes, perceptions, and knowledge regarding the use of telehealth services. Since the students are young and have a high rate of technology adoption and skill set, the study's goal is to evaluate their knowledge, perception, and attitude about telehealth services. Students from different colleges in Uttarakhand, mostly in the districts of Dehradun, Haridwar, and Nainital, were sent a questionnaire using Google Forms. Approximately one thousand pupils were singled out via their WhatsApp groups and Gmail accounts. Students have a positive opinion of telemedicine because they want to utilize it and are willing to recommend it, despite their lack of knowledge of telemedicine apps and associated topics. The study came to the conclusion that telehealth services could be beneficial for states like Uttarakhand, whose weak health infrastructure is a result of the state's geographic location.

Rousseau, DaSilva, DeCasabianca, Begue, Tessier-Cazeneuve, and Legendre (2019) investigated the overall influence of smartphone applications on contraceptive awareness and decision-making through a comprehensive review of 22 studies. The sites of the four remaining research were not mentioned, while three of the 22 studies were carried out in low- and medium-income nations and 15 of the 22 studies were based in the United States. Although apps could be helpful in promoting the use and prescription of contraceptives, the reviewers concluded that they were not trustworthy information sources. The authors pointed out that the studies' heterogeneous nature made it more challenging to make conclusions about how mobile health applications affect people's understanding and use of contraceptives.

In order to reduce unwanted pregnancies among young people in three lower middle-income countries, Ona et al. (2018) conducted research on the creation of a mobile phone-delivered intervention. Young people in Tajikistan, Bolivia, and Palestine participated in this study. The data was analyzed using descriptive statistics. The needs assessment's findings led to comparable interventions in each nation. Over the course of four months, the interventions will consist of brief daily messages (sent via text messaging in Palestine and instant messaging on mobile applications in Bolivia and Tajikistan). The messages give young people information on contraception, address attitudes that prevent them from using contraceptives, and encourage them to feel in control of their reproductive health. The same 10 behavioral change techniques used in each intervention are modified for mobile phone delivery.

A study on the creation of a smartphone application on contraceptive alternatives for young African American and Latina females was conducted by Motolani, Luciana, Brandon, Michael, Jane, Amy, and Melissa (2019). The transtheoretical model of behavior change and the idea of planned behavior were used to inform the content of the miPlan app, which was created using user experience design standards. During several iterations of usability testing, a design team from a university involved young Latina and African American women to provide feedback on the app's design. Next, researchers assessed how well-liked the miPlan app was by Latina and African American women between the ages of 15 and 24 at family planning clinics. The app was regarded as very satisfactory by participants, who said it was very informative and simple to use. The study demonstrates that because of their accessibility and user-identifiability, mobile applications created in collaboration with user communities may be successful in disseminating health information. The usefulness of mHealth (mobile health) initiatives for enhancing the use of contraceptives in low-

and middle-income nations was examined by Banyar, Jason, and Kathryn (2020). Identifying the mHealth characteristics and behavior change communication elements included in these mHealth interventions was another goal of the study. The data was analyzed using descriptive statistics.

From the study, it is deduced that mHealth treatments aimed at enhancing family planning in low- and middle-income nations have encountered implementation issues that have hindered the researcher's capacity to assess the efficacy of the interventions. The evaluation is unable to make firm judgments regarding the overall efficacy of mHealth treatments to promote contraceptive use in low- and middle-income nations, despite the fact that three out of eight studies reported improved contraceptive usage in the intervention group.

According to the analysis, telemedicine has been widely used and proven to be successful in addressing health issues among undergraduate students in Nigerian universities.

RESEARCH METHODOLOGY

For this research work, the survey research method was used. The descriptive survey aims to describe and explain why situations exist, allowing for realistic inquiries that can yield valid and trustworthy information on the audience being studied. student's population of 18,000 obtained from (University's Students' Affairs Unit) was used in this study, alongside multistage sampling technique used to select a sample from the population in this study. The first stage involves the selection of faculties. Two faculties were randomly selected through balloting. In line with this, the Faculty of Social Sciences and Management sciences were selected. The second stage involves the random selection of departments from the two faculties. For the Faculty of Social Sciences, department of Mass Communication and department of Political Sciences were randomly selected. For the Faculty of Management Sciences, department of Banking and Finance department and department of Business Administration were randomly selected.

Sample of 300 undergraduate students were drawn (75 students from each of the sampled departments) from the registered undergraduates students for the 2022/2023 academic session in the above selected departments. In all, 300 undergraduate students were issued the copies of the questionnaire.

3.4 Instrument of Data Collection

Questionnaire were adopted containing close-ended questions. The questionnaire was categorized into two components. Section A consisted of demographic-based information of the respondent including age distribution, marital status, gender and department whereas Section B consisted of close-ended statements of questions designed to elicit information on awareness and adoption of telemedicine by undergraduates of Chukwuemeka Odumegwu Ojukwu University Igbaram. Scaled response was used to measure the intensity respondents' answers compared to multiple choice responses.

3.5 Validity and Reliability of Instrument

Validity of the study was obtained through a pilot survey

Reliability was ascertained using test-retest technique. This was to determine the extent of reliance of research instrument in giving the same results. This was done by administering the research instrument to 20 randomly selected undergraduates from the departments not covered in the study. Their responses were collected and analyzed. After two weeks the same exercise was repeated and their responses were similar to the initial response. This shows that the instrument is reliable.

4. DATA PRESENTATION AND ANALYSIS

4.1 Demographic Data

The analysis and interpretation total of 300 copies of questionnaire were distributed to respondents out of which 215 were collected from respondents. This gives a response rate of 71.7%. Below are the demographic features of the respondents.

Table 1: Demographic Characteristics of the Respondents

Variables	Category	Frequencies	Percentage
Sex	Male	97	45.1
	Female	118	54.9
	Total	215	100
Marital Status	Single	196	91.1
	Married	19	8.9

	Divorced/Widowed	-	-
	Total	215	100
Age	18 - 25	181	84.2
	26 – 30	34	15.8
	31 and above	-	-
	Total	215	100
Department	Mass Communication	24	11.2
	Political Sciences	67	31.2
	Business Administration	81	37.7
	Banking and Finance	43	19.9
	Total	215	100

Source: Field Survey, 2023.

Demographic characteristics of the respondents indicate that 97 respondents accounting for 45.1% are males while 118 respondents accounting for 54.9% are females. This implies that there are more female respondents than male respondents. This implies that majority of the respondents were female.

demographic features of the respondents indicates that 196 respondents accounting for 91.1% are single, 19 respondents accounting for 8.9% are married, while none of the respondents are either divorced or widowed. This implies that majority of the respondents were single.

Data from the age range of the respondents indicate that 181 respondents accounting for 84.2% fall between the age of 18 to 25 years, 34 respondents representing 15.8% are between the age of 26 to 30 years while none of the respondents were above 30 years. This implies that majority of the respondents were within the age bracket of 18 to 25 years.

The table also showed the department distribution of the respondents. 24 respondents representing 11.2% are in Mass Communication department, 67 respondents representing 31.2 are in Political Sciences department, 81 respondents representing 37.7% are in A Business Administration department while 43 respondents representing 19.9% are in the department of Banking and Finance. This implies that majority of the respondents were in Business Administration department followed by Banking and Finance, Political Science and Mass Communication.

Data Analysis

4.2.1 Question One

What is the extent of awareness of telemedicine by undergraduates of Chukwuemeka Odumegwu Ojukwu University Igbariam?

Table 2: Analysis of Respondents Awareness of Telemedicine

Response Category	Frequency	Percentage
Yes	187	87
No	15	7
Not Sure	13	6
Total	215	100

Source: Field Survey, 2023.

The above table shows that out of the 215 respondents, 187 accounting for 87% affirmed that they are aware of telemedicine, 15 respondents ticked no accounting for 7% while 13 respondents accounting for 6% ticked that they are not sure. This implies that majority of the undergraduates of Chukwuemeka Odumegwu Ojukwu University Igbariam are aware of telemedicine.

Question Two

To what extent is telemedicine adopted by undergraduates of Chukwuemeka Odumegwu Ojukwu University Igbariam?

Table 3: Analysis of the Extent of Adoption Telemedicine Adopted by Undergraduates

Response Category	Frequency	Percentage
High Extent	148	68.8
Low Extent	47	21.9
Not Sure	20	9.3
Total	215	100

Source: Field Survey, 2023.

The above table showed the extent of adoption of telemedicine by undergraduates of Chukwuemeka Odumegwu Ojukwu University Igbariam. One hundred and forty eight (148) respondents accounting for 68.8% agreed that they have adopted telemedicine to a high extent, 47 respondents accounting for 21.9% have adopted telemedicine at a low extent while 20 respondents accounting for 9.3% noted that they are not sure they have adopted telemedicine.

4.2.3 Research Question Three

How effective is telemedicine in managing health challenges among undergraduates of Chukwuemeka Odumegwu Ojukwu University Igbariam?

Table 4: Analysis of the effectiveness of Telemedicine in Managing Health Challenges Among Undergraduates

Response Category	Frequency	Percentage
Very Effective	108	50.2
Less Effective	94	43.7
Not Effective	13	6.1
Total	215	100

Source: Field Survey, 2023.

The above table showed that 108 respondents representing 50.2% agreed that telemedicine is very effective in managing health challenges among undergraduates of Chukwuemeka Odumegwu Ojukwu University Igbariam, 94 respondents representing 43.7% noted that it is less effective, while the remaining 13 respondents representing 6.1% agreed that telemedicine is not effective in managing health challenges among undergraduates of Chukwuemeka Odumegwu Ojukwu University Igbariam. This implies that telemedicine is very effective in managing health challenges among undergraduates of Chukwuemeka Odumegwu Ojukwu University Igbariam.

4.3 Discussion of Findings

The study explored the awareness and adoption of telemedicine by undergraduates of Chukwuemeka Odumegwu Ojukwu University Igbariam. The study found that the students of Chukwuemeka Odumegwu Ojukwu are aware of telemedicine and what its entails. This is supported by the analysis in Table 2 where majority of the respondents (87%) agreed that majority of the undergraduates of Chukwuemeka Odumegwu Ojukwu University Igbariam are aware of telemedicine. This agrees with the findings of Anil, Manju, Kannan, Himiki and Divija (2022) that students had good awareness about the telemedicine practice

Analysis of research question two showed that majority of the undergraduates of Chukwuemeka Odumegwu Ojukwu University Igbariam has adopted telemedicine. This is supported by the analysis in Table 3 where 68.8% of the respondents indicates that they

has adopted telemedicine. This agrees with the findings of Prateek, Anandhi, Ruby, Disha and Nupur (2021) that students viewed telemedicine as a viable approach, and have integrated telemedicine practice.

Analysis of research question three indicates that majority of the respondents agreed that telemedicine is very effective in managing health challenges among undergraduates of Chukwuemeka Odumegwu Ojukwu University Igbariam. This is supported by the analysis in Table 4 where 50.2% of the respondents agreed that telemedicine is very effective in managing health challenges among undergraduates of Chukwuemeka Odumegwu Ojukwu University Igbariam.

This study was undertaken to investigate the awareness and adoption of telemedicine by undergraduates of Chukwuemeka Odumegwu Ojukwu University Igbariam. The study found that the students of Chukwuemeka Odumegwu Ojukwu are aware of telemedicine and what its entails. This implies that the awareness level of telemedicine is high.

The study also found that telemedicine is very effective in managing health challenges among undergraduates of Chukwuemeka Odumegwu Ojukwu University Igbariam. This implies that undergraduates of Chukwuemeka Odumegwu Ojukwu University Igbariam attested to the efficacy of telemedicine in handling health challenges. The following conclusions were drawn from the study. The study concludes that the students of Chukwuemeka Odumegwu Ojukwu are aware of telemedicine and what its entails. The study also concludes that undergraduates of the university have has adopted telemedicine; and that telemedicine is very effective in managing health challenges among undergraduates of Chukwuemeka Odumegwu Ojukwu University Igbariam.

5.2 Conclusion

The study concludes that the students of Chukwuemeka Odumegwu Ojukwu are aware of telemedicine and what its entails. The study also concludes that undergraduates of the university have has adopted telemedicine; and that telemedicine is very effective in managing health challenges among undergraduates of Chukwuemeka Odumegwu Ojukwu University Igbariam.

5.3 Recommendations

The study recommends the following:

1. More campaigns ,enlightenment needs to be carried out for an effective communication channels, high level of awareness and adoption telemedicine among students and health experts .
2. To be able to manage health challenges, Nigeria's healthcare system urgently needs to be strengthened. To achieve this, the health care system in Nigeria should be given due consideration in terms of funding, infrastructural development and equipments in order to make them effective in handling health challenges.
3. There should be sensitization programme for students on the issues related to telemedicine. This is made possible by ongoing public symposiums, stakeholder conferences, campaigns, public lectures, and research aimed at reorienting students to telemedicine.

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