

PERCEPTION OF CAREGIVERS ON COMMONLY USED ICT AND SOCIAL MEDIA DEVICES IN DISSEMINATING INFORMATION IN THE PANDEMIC PERIOD

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Abstract

The work is a qualitative research design specifically descriptive survey. The study was based on determining the perception of caregivers on the commonly used ICT devices in dissemination of information in pandemic period in Anambra State. One research question guided the study. The population was made up of all caregivers that brought their patients to government and mission hospitals in Anambra state at the period of the study. Purposive sampling technique was used to sample only government and mission hospitals from three cities in Anambra State. In each of the cities, purposive sampling was utilized to sample two major government hospitals in the state while simple random sampling techniques balloting with replacement was used to select one mission hospital in each of the three cities in the state. In each of the three cities, 10 caregivers from the population were used for the study. Thus, a sample of 90 caregivers was drawn and used for the study. The study employed semi-structured questionnaire for

data collection. Simple percentage was used for data analysis. Result indicated among others that: internet (100%), text messages (100%), WhatsApp (100%), radio(100%), television(100%), were the predominantly used ICT and social media devices used for information delivery.

Keywords: perception, ICT gadget, dissemination of information, pandemic.

Introduction

Innovations in the 21st century have curbed the use of errand boys, town criers, trained animals like dogs, the use of fire and smoke and lastly the postal services are gradually giving away to the advancement in information and communication technology (ICT). The earlier practices are attributed with challenges such as time consuming, abysmally slow in reaching target audience prove to be distortion and often unreliable (Nnaka&Anaekwe, 2007). Nnakaetaldiscussed briefly some innovative tools / gadgets for communication as follows:

Computer: This is an electronic device that works under the control of stored programmes, automatically accepting, storing, retrieving and processing data to produce information that is the result of the process. It has many educative functions such as: typing, sending and retrieving of information, charting and sending of mails. Computers can be desktop, laptop, palm top, touch pad, note book, phones and the like.

Internet: It simply means international networking. It is a global computer network that allows data to be transferred from one computer to another. It offers a cheap and reliable means of information accessing and communication, which compliments the telephone. It relies on telephone lines and computer. Internet

ensures that information is broken down into digital packets and large amount can be accessed and distributed over large distance.

Electronic mail (E-mail): This promotes meaningful interaction between the sender (teacher) and the (receiver) learner. With the e-mail technology, the receiver will be able to access any meaningful materials from system anywhere at any time provided the necessary payments for access charge has been made.

Fax: The technological advances of the past few decades have made it possible to transmit printed messages, pictures and even live performances to all comers of the world with speed. Fax or facsimile machine carries printed messages either in form of words or pictures in photocopy form from the sender instrument to the receiver instrument (gadgets). The sender of a fax message prepares the copy on a sheet which can be fed into the fax machine. The sender dials the destination number, gets the destination number, gets the fax tone and feeds the message into the machine. The printed message is converted into electronic signals as the paper rolls through the fax machine. This message is received in the same form at the other end of the paper roll that is attached to the machine.

Videoconferencing, Teleconferencing and Computer conferencing: These modes of communication begin in teleconferencing. A number of neither computers nor telephones are simultaneously connected to one another. Teleconferencing is a facility enabling people in different parts of the world to have an audio meeting (as opposed to dialogue), saving on transit time and hotel stay. It helps in thrashing out a variety of opinions on a subject to reach a faster conclusion. On the other hand, Videoconferencing is the most modern that enables the sender and the receiver to see each other in the process of discussion. The technologies used in a videoconference are: monitor screen, camera, microphone, codec (compressor-decompressor), equipment control pad at each

location and internet connectivity. With the passage of time, this is becoming more popular and easier to use. It is often seen in television interviews.

Satellites: Satellites are geostationary communication repeaters located at about 35, 700 km above earth surface (Adaniran, 2002). It rotates around the earth every 24 hours and remains above the earth always. They receive microwave signals in one frequency band and transmit them in another frequency. Satellite handsets transmit voice, text, audio and visual information. It is thus a suitable ICT for data transmission, broadcasting and internet. They bring information to the rural areas with installation of cables as a result of their reception to satellite geostationary repeaters.

Radio and Television sets: These are ICT tools or gadgets that equally have educative functions. Just as the computers, they can be used as object of information delivery. Some educational programmes such as the UNIAR, distance learning or the Open University etc are facilitated through these gadgets. Media stations equally use these gadgets to disseminate information to citizenry. This was perceived during COVID 19 pandemic that occurred in the early part of 2020 worldwide.

Newspapers, Magazines (Printed materials / media): These are forms of materials that provide communication in many different types. Messages can be sent out and printed on fliers, in newspapers, billboards and magazines. Once the pieces are printed, they are distributed to their proper audience. The communication can be used to send information on promotions or updates on news or events.

Social Media devices such as Whatsapp, Facebook, Twitter, Togo and YouTube: They are means of communication but are regarded as social media as a result of large area of coverage (audience). They are very important for sharing of news and local information. But in countries where the press has been

weakened or suppressed or compromised social media is the best means of dissemination of information.

Furthermore, Globitel in Binitie (2019) mentioned **unstructured supplementary service data (USSD)** as one of the ICT gadgets. USSD is a menu-based service which runs as a real-time open session between the application and the end user built into the global system for mobile communication (GSM) standard. It allows high speed, bidirectional communications between mobile handsets and applications. Banks of various branches often makes use of it for inter-bank communication.

Intercom: This is the most commonly means of dissemination of information among institutions of learning, hospitals and organizations. It covers a smaller area.

In addition, Etiubun and Akpan in Ugwanyi, Onah, Ude and Okeke (2018) described the importance of the innovative gadgets as follows: it changes the mind set of people through the way they think and learn. It helps to run activities in the society faster and smoothly towards achieving the societal or nations objectives. This shows that every human society is dynamic because of its technological needs and values rapidly change over time. These changes are often related to acquisition of new knowledge, skills and technology for life-long living, life-long learning, human development, better living and the growth of the society. The thrust of life-long living, life-long learning and human development relates to literacy, eradication of poverty and disease control through acquisition of scientific knowledge, attitudes, ethics and skills for living (Okonkwo&Adigwe, 2018).

Thus, the invention of information and communication technology (ICT) for information gathering, dissemination and communication process becomes necessary. Information and communication technology (ICT) has been defined by

various scholars from different perspectives. Mueen, Asadullah, Raed and Jamshed (2013) defined ICT as electronic network-embodying complex hardware and software-linked by a vast array of technical protocol. Apuke (2017) referred ICT as facilities and tools for message dissemination through the use of internet, satellite, cable data transmission and computer assisted equipment. This indicates ICT as technologies that provide access to information through telecommunication. In all, UNESCO in Ratheeswari (2018) summarized the definition of ICT as a “scientific, technological and engineering discipline and management technique used in handling information, its application and association with social, economic and cultural matters”. It is worthy to note that, ICTs are making dynamic changes in society. They are influencing all aspects of life. The influences are felt more in Nigeria and other countries / nations in this period of pandemic. The influence of ICT in Nigeria in the period of pandemic cannot be over emphasized.

A pandemic can be termed “an epidemic” which occurs over a wide area, crossing international boundaries and usually affecting a large number of people. World Health Organization (WHO) (2010) defined pandemic as emerges spread of influenza around the world that kills people with very low immunity. WHO further stressed that the large scale outbreaks of infectious disease increase morbidity and mortality over a wide geographic area and cause significant economic, social and political disruption. This results to high rate of poverty in developing country like Nigeria. WHO (2010) further pointed out risks associated with pandemic as:

- It appears to be increasing in frequency particularly because of the increasing emergence of viral disease from animals
- Pandemic risk is driven by the combined effects of spark risk (where a pandemic is likely to arise) and spread risk (how likely it is to diffuse

broadly through human populations)

- Some geographic regions with high spark risk, including central and West Africa, lag behind the rest of the globe in pandemic preparedness
- Probabilistic modeling and analytical tools such as exceedance probability (EP) curves are valuable for assessing pandemic risk and estimating the potential burden of pandemic
- Influenza is the most likely pathogen to cause a severe pandemic. EP analysis indicates that in any given year, a 1% probability exists of an influenza pandemic that causes nearly 6 million pneumonia and influenza death or more globally.

The application of ICT and social media devices in dissemination of information created awareness of what pandemic is, risks associated with it, preparation involved for life-long living and curbing global recession.

Coronavirus disease 2019 (COVID -19) is a viral disease that kills millions of humans in a twinkle of an eye. Bronze (2020) defined COVID -19 as an illness caused by a novel coronavirus now called severe acute respiratory syndrome coronavirus 2 (SARS-COV-2; formerly called 2019-ncov). It is called COVID-19 because it was identified in the year 2019. The viral disease was identified in 2019 in Wuhan China before its spread to various countries of the world in which Nigeria is one, Anambra State being in Nigeria is affected. This type of virus has not been identified in humans as indicated by WHO. This killer of millions of human beings probably does not have vaccine for its prevention nor for its cure.

On 31st December, 2019, the case was officially reported to WHO. WHO on March 11th, 2020 declared COVID-19 a global pandemic having more than 185 countries infected with the pandemic. WHO as at 24th April, 2020 recorded 1,813,684 active cases and 195,920 deaths.

Furthermore, WHO outlined possible ways of infections and its preventive measures respectively as;

Possible ways of infections

- Transmission through droplets generated when an infected person coughs, sneezes or exhales. These droplets are too heavy to hang in the air and quickly fall on floor or surfaces
- One can be infected by breathing in the virus if one is within close proximity of someone who has COVID-19 or by touching a contaminated surface and then the eyes, nose or mouth

Preventive measures

- Cleaning of hands often. Use of soap and water or an alcohol-based hand rub
- Maintaining a safe distance from anyone who is coughing or sneezing
- None touching of eyes, nose or mouth
- Covering of nose and mouth with bent elbow or tissue when coughing or sneezing
- Staying home if one feels unwell
- If fever, cough and difficulty in breathing, seeking medical attention are needed. Call in advance become necessary
- Adherent to directions of local health authority is very necessary
- Avoiding unneeded visits to medical facilities allows health care systems to operate more effectively, thereby protecting one and others.

The listed possible ways of infection and its preventive measures highlighted by WHO made Anambra State government through its agencies to uphold the use of ICT gadgets in disseminating information on COVID-19 outbreak to her citizens. Thus, the study seeks to investigate citizenry perception

on the use of various ICT gadgets in dissemination of information in pandemic period.

Statement of the Problem

The researcher observed that the traditional means of communication can no longer disseminate information effectively in Nigeria. This is attributed to high rate of population and the need to survive through the knowledge and ideas sharing for individual awareness, growth and national development. Information and communication technology is seen as a potential tool for dissemination of information, information sharing and knowledge acquisition. It is generally accepted as the modern means of disseminating information. The study investigated the perception of caregivers on the commonly used ICT and social media devices in dissemination of information in pandemic period.

Purpose of the Study

The aim of the study was to determine the perception of caregivers on the commonly use of ICT and social media devices in dissemination of information in pandemic period in Anambra State. Specifically, the study sought to find out: The perception of caregivers on the commonly used ICT and social media devices in dissemination of information in the period of pandemic.

Research Question

The research question guided the study: What were the commonly used ICT and social media devices employed by caregivers in dissemination of information in the period of pandemic?

Method

The study adopted a descriptive survey research design. The population consists of all caregivers that brought their patients to government and mission hospitals in Anambra state during the period of the study. Purposive sampling technique was used to sample only government and mission hospitals from three cities in Anambra State. The cities are Awka, Nnewi and Onitsha. The choice of selecting the state was as a result of the lockdown and proximity. In each of the cities, purposive sampling technique was utilized to sample two major government hospitals ($2 \times 3 = 6$ government hospitals), in the state while simple random sampling technique balloting with replacement was used to select one mission hospital from each of the cities in the state ($1 \times 3 = 3$ mission hospitals). Purposive sampling technique was used to choose 10 caregivers from each of the hospitals that made up the population for the study ($9 \text{ hospitals} \times 10 \text{ caregivers} = 90$). Thus, a sample of 90 caregivers was drawn and used as sample for the study.

Before the study commenced, the researcher trained four health workers as research assistant for one week on method of conducting interview using Citizenry Perception on the Commonly Use ICT Gadgets in Dissemination of Information in the Period of Pandemic (CPCU ICTGDIPP).

The study employed semi-structured interview termed Citizenry Perception on the Commonly Use ICT Gadgets in Dissemination of Information in the Period of Pandemic (CPCU ICTGDIPP) for data collection. CPCU ICTGDIPP was compilation of questions used to collect opinion from respondents. The instrument was subjected to validation by experts in computer education and measurement and evaluation from Nnamdi Azikiwe University, Awka. The instrument was validated in terms of clarity of instruction, proper wordings of the items, appropriateness and adequacy of the items in addressing the purposes of the study.

The instrument comprised of Section A which dealt on bio-data of respondent and Section B on the questions concerning ICT and social media devices used by caregivers in disseminating information. Simple percentage was used for data analysis.

Results

Table 1: Percentage rating of Caregivers on Commonly used ICT and Social media devices in dissemination of information in the period of pandemic

S/N	ICT Devices	Yes	No
Transmission medium			
1	Satellites	45 (50%)	45 (50%)
Connecting medium			
2	Internet	90(100%)	0(0.0%)
Social and Network media			
3	Text messages	90(100%)	0(0.0%)
4	E-mail	6(7%)	84(93%)
5	What Sapp	90(100%)	0(0.0%)
6	Facebook	87(97%)	3(3%)
7	Twitter	76(84%)	14(16%)
8	YouTube	68(75.6%)	22(24.4%)
9	2go	0(0.0%)	90 (100%)
10	USSD	74 (82%)	16 (18%)
11	Intercom	0(0.0%)	90(100%)
12	Teleconferencing	0(0.0%)	90(100%)
13	Videoconferencing	0(0.0%)	90(100%)

14	Fax	0(0.0%)	90(100%)
Hardware			
15	Radio	90(100%)	0(0.0%)
16	Television	90(100%)	0(0.0%)
Printed media			
17	Newspapers	88(98%)	2(2%)
18	Magazine	18(20%)	72(80%)

Discussion

Making reference to Table 1, it is evident that internet (100%), text messages (100%), WhatsApp (100%), Radio (100%), television (100%), were the predominantly used ICT and social media devices used for information delivery. This is in line with the findings of the study carried out by Tinio (2002) that potentials of ICT gadgets utilization in information delivery / dissemination is increasing and so improves the relevance of information through quick and fast delivery. It facilitates acquisition and absorption of knowledge, offering developing countries unprecedented opportunities to access information globally. Also, Ratheesawri (2018) supported the assertion by adding that ICTs and its gadgets are catalyst for societal upliftment through change in mind set of individual, change in working conditions, exchange of information and handling of information. This speeds up development of the society. Hence, Anambra citizens benefited from information's like government instructions concerning COVID-19 during the period of the epidemic.

Conclusion

The study adopted a descriptive survey research design. The population consists of all caregivers that brought their patients to government and mission hospitals in Anambra state during the period of the study .Purposive sampling technique was used to choose10 caregivers from each of the hospitals that made up the population for the study (9hospitals x 10 caregivers = 90). Thus, a sample of 90 caregivers was drawn and used as sample for the study . Data were analysed using simple percentages. The findings of the study revealed that internet (100%), text messages(100%), ,whatsApp (100%), radio(100%),, television(100%), were the predominantly used ICT and social media devices used by caregivers for information delivery.

Recommendations

Based on the findings of the study, it was recommended that:

- Government should expand its scope of information delivery through other ICT gadgets that were not effectively utilized satellite dishes, teleconferencing and other devices. This would assist citizens to explore and utilize other ICT gadgets for information gathering.
- Electricity generation and distribution in the country should be given serious attention to enable citizens make effective use of their personal electronic and social media devices.
- Bandwidth and data subscription charges should be subsidized by government for the welfare of the populace.

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