

Media Preference and Use Pattern among Diabetes Patients in Enugu State, Nigeria

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Abstract

This study investigated media preference and use among diabetes patients in Enugu State, Nigeria with attention to type of media preferred, time used, duration and reason for media use. Survey research design was used to achieve the study objectives. Within the framework of Media Richness and Uses and Gratification theories, a total of 274 respondents were purposively selected from University of Nigeria Teaching Hospital, Bishop Shanahan Hospital and Federal Medical Centre all in Enugu State, Nigeria. The questionnaire was used to collect data for the study while data was analyzed using the Statistical Package for Social sciences version 22. Result showed that TV was the most preferred medium. It was also found that time of the day had a significant influence on the choice of media. While TV was largely preferred at night, newspaper was preferred in the early morning and radio in the afternoon. Result further showed that longer duration was used to in watching TV than consuming any other medium. The researcher concludes that media preference was determined by time of the day and gratification sought. The researcher recommends, among others, that health communication should be guided by media preference and use of target population.

Keywords: Diabetes; Media; Patients; Preference and use

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Introduction

Over the years, diabetes has proved to be one of the dangerous diseases globally. Apart from the health danger that comes with the disease, it is very common and efforts at stemming its spread have not significantly achieved the desired result. Diabetes describes a group of metabolic diseases in which the person has high blood glucose (blood sugar), either because insulin production is inadequate, or because the body's cells do not respond properly to insulin, or both (WHO 2015). According to Chinenye [1] patients with high blood sugar are likely to experience polyuria (frequent urination), and this eventually makes them become increasingly thirsty (polydipsia) and hungry (polyphagia).

The World Health Organization [2] in its report on diabetes revealed that the ailment caused 1.5 million deaths in 2012 and that higher-than-optimal blood glucose caused the death of an additional 2.2 million because of increased risks of cardiovascular and other diseases. The World Health Organization adds that many of these deaths (43%) took place under the age of 70 and that in 2014, 422 million people in the world had diabetes – a

prevalence of 8.5% among the adult population. WHO regrets thus: 'The prevalence of diabetes has been steadily increasing for the past 3 decades and is growing most rapidly in low- and middle-income countries.'

Commenting on the imperative of the mass media and information dissemination in combating diabetes, WHO notes: "Mass media campaigns and social marketing can influence positive change and make healthy behaviours more the norm. These strategies have the potential to reduce the occurrence of type 2 diabetes and may also reduce complications associated with diabetes (p. 15)." Suffice it to say that mass media campaigns are essential for reducing the increasing risk of diabetes, it then follows logically that understanding media preference and consumption of diabetes patients is very essential in developing communication strategies for managing diabetes.

Scholars [3] have investigated media consumption and preference of media audience. For example, Singh and Singh studied the media preference of judges and reported that newspaper is the most preferred media for the judges in the morning hour showing that information precedes over entertainment in early part of the

day while choice of Television programmes at night and late night show that entertainment precedes over information. Hanson, et al. [4] in a study of Community Health Center patients reported that they preferred that their providers use email, cell phones for texting, and Facebook and cell phone apps for sharing health information. Significantly more Hispanic than white patients believed their providers should use Facebook ($P=0.001$), YouTube ($P=0.01$), and Twitter ($P=0.04$) for sharing health information. Use and intentions to use social media for health-related purposes were significantly higher for those patients with higher subjective norm scores. The media consumption pattern of the audience has been thought to account for the success or failure of health campaigns. Wakefield [5] corroborates that communication campaigns involving diverse topics and target audiences have been conducted for decades and some reasons why information campaigns fail is largely because exposure to such messages is, generally passive. Wakefield adds that such campaigns are often competing with factors, like pervasive product marketing, powerful social norms, and behaviours driven by addiction or habit. Variables of media preference and use that are likely to affect health campaigns include: the type of media use, the time of media use and the average duration for media consumption. Based on this background, this study investigated media preference and use of diabetes patients in Enugu State, Nigeria.

Statement of the Problem

The increasing cases of diabetes globally have constituted a health challenge to medical experts. While complete cure of the disease has remained a daunting challenge to scientist, managing it has been identified as a vibrant way of avoiding it from becoming complex. The American Diabetes Association (2017) reveals that given the complex and chronic nature of diabetes, requiring continuous medical care with multi-factorial risk-reduction strategies beyond glycemic control, ongoing patient self-management education and support are critical to preventing acute complications and reducing the risk of long-term complications. This means that knowledge of media preference and use among diabetes patients is very essential for effective campaigns managing diabetes. However, the increasing number of diabetes patients in Nigeria has not been greeted with corresponding literature on the media preference and use among these patients as areas like the type of media most preferred, the time of media use, the duration as well as reasons for media preference and use have not been significantly investigated. Rather, previous studies [1,6,7] have focused more on media coverage, causes and prevention. This gap in literature is the problem and motivation for this study.

Objectives of the Study

The general objective of this study is to determine the media preference and use among diabetes patients. Specifically, the study sought to determine the following:

- The most preferred media among diabetes patients in Enugu State, Nigeria.
- The time of media use among diabetes patients in Enugu State, Nigeria.

- The duration of media use among diabetes patients in Enugu State, Nigeria.
- The reasons for media use and preferences among diabetes patients in Enugu State Nigeria.

Overview of Diabetes in Nigeria

Nigeria is one of the 32 countries of the International Diabetes Federation, African region. Figures from the Federation revealed that there were 3.747 million cases of diabetes in Nigeria in 2014. The result of the Federation further revealed that the prevalence of diabetes in adults (20-79 years) is 4.6%. The number of cases of adults that are undiagnosed was put at 1,723.4. Cost per person with diabetes (USD) was put at 178.8 while the number of deaths in adults due to diabetes was put at 105,091. Dahiru, Aliyu and Shehu [8] did a study wherein twenty population-based studies that had been conducted on the prevalence of diabetes in Nigeria between 1990 and December 2013 were reviewed and reported that the prevalence of diabetes ranged from 0.8% to 11% involving both urban and rural populations, with varying sampling schemes. The International Diabetes Federation Diabetes Atlas, shows that Nigeria is the leading country in Africa in terms of the number of people with diabetes which is estimated to increase annually by 125,000 between 2010 and 2030. This over views shows the danger diabetes poses to the Nigerian people.

Media preference, use and health communication

Media preference and use of the audience is a very fundamental criterion in planning and implementing health campaigns. Knowledge of media preference and use of the target population is a *sin qua non* for successful health campaigns. The United States Department of Health and Human Services, [9] corroborates that to effectively reach the targeted audiences health promotion and communication activities should reflect audiences preferred formats, channels, and contexts. This suggests that for effective communication on health related issues, the preferences of information from the audience should be consistent with the channels in which the health information is sent. Uittenhout [10] avers that the Internet, television and newspapers are among the types of mass media that can be used for health communication. Hartman, [11] opines that giving that the media choice of individuals is not always made deliberately and can be influenced by an inner drive or impulse including habitual and even addictive media choices more popular forms of media are often used for health communication. Cassell, Jackson and Cheuvront, [12] submit that as an alternative to direct communication with doctors, health professionals can use the popularity of mass media for health communication through these channels. This cannot be achieved without knowledge of media use and preferences of the target population. Therefore, in any health communication the following questions about the target population must be answered: Which medium/media do they prefer? What time do they access the medium/media? How long do they access the medium/media? These tripod will significantly determine the success or otherwise of health communication.

Health communication is a broad concept that covers sharing of health related information. Ratzan [13] describes health communication as the art of informing, influencing, and motivating individual, institutional, and public audiences about health issues through planned learning experiences based on sound theories. The overall aim of health communication is promote healthy living through interventions, advocate health policies, among others. No matter how well crafted a health intervention is, if it is done without the target population in mind, the communication will fail. Bennett and Glasgow [14] posit that the effectiveness of a health communication programme can be ascertained through the measuring of the impact vis-a-vis improving the quality of life or reducing the negative effects of diseases on individuals, which in this case, diabetes. Uittenhout [10] avers that when launching health communication, attention should be paid to how the information will be made available to the target population, how to influence the target population as well as motivate them. Therefore, in the chain of health communication, the target population is the king. Just like in the production process, the health communication is never complete until it reaches the target population. This makes the communication behaviour of the population measured in media preference and use very essential for health communication undertakings.

Media preference and use of diabetes patients

Information is a very fundamental need of patients. Patients require information to better manage their ailments. The Pew Internet and American Life Project avers that patients with chronic health conditions are usually looking to the Internet for information and support related to their illness. An analysis of the ten most popular social media websites with emphasis to individuals living with a chronic disease revealed that the sites had an average of 6,700 members and up to 100 new posts daily, depending on the day and topics [15]. Greene, et al. [5] examined the content of Internet-based discussion groups for those with diabetes through thematic analysis of posts and group discussion threads using the Facebook accounts of patients with diabetes and found that sharing personal clinical information, requesting disease-specific guidance, and receiving emotional support were the most common topics among users. Armstrong, et al. [16] reported the same topic areas after a study of a peer-to-peer discussion group used by a sample of patients with diabetes living in the United Kingdom. Armstrong et al further reported that Diabetes self-management; new possibilities in treatment, and coping psychologically with the disease were most commonly discussed among patients in the United Kingdom. This implies that diabetes patients were seeking for information for the management and psychological support of their medical condition. This information is very useful for health communication because it will help in packaging communication contents for diabetes patients. This is also likely to influence their media preference and use. Bahammam [17] studied 454 diabetes patients in Saudi and reported family and friends were the main source of diabetes-related information, and the Internet was the least likely source. Liebreich, et al. [18] investigated the effectiveness of a 12-week online intervention targeting

physical activity among a sample of older patients with Type 2 diabetes – mean age = 54 years. The programme was hosted on a website containing didactic content and interactive components with elements of social networking such as message boards and personalized weekly emails from a counselor. In sharp contrast to those in a control group, intervention participants demonstrated increased amounts of physical activity and also reported high levels of satisfaction with the online delivery mode. This result paints a picture of the importance of information in diabetes management.

Shaffer-Hudkins et al. [19] studied social media use among individuals with Diabetes in the United States. The researchers describe a study surveying 244 participants of four national diabetes online communities with a view to understanding the frequency, motivating factors, and preferences of social media use as well as related outcomes. The result showed that participants are regularly active in diabetes online communities, with over half accessing such sites daily or even multiple times per day. Differences in frequency of use were not evidenced across age groups or relation to diabetes (i.e. patient versus loved one or caregiver). The result also showed that almost half of the respondents indicated that they engage in diabetes social media use regularly regardless of health status or personal situation at the time. Topics of most interest when accessing diabetes-related were found to include diabetes management, the latest technology, and nutrition. From the studies reviewed, there is little or no evidence on media preference of diabetes patients in from Nigeria even though the country has the highest number of diabetes patients in Africa.

Theoretical Framework

This study found expression in Uses and Gratification theory. The Uses and Gratification Theory was propounded by Katz in 1970. The main idea of the theory is how people use media for gratification of their needs. The theory holds that people use media for many purposes and that the audience is active and its media use is determined by goal. People have various needs they seek to satisfy through media. Audience members take initiative to link need gratification to a specific media. The theory propounds the fact that people choose what they want to see or read and the different media compete to satisfy each individual's needs.

This theory was found useful because it helps in understanding media preferences and use among diabetes patients. It provided the basis for understanding the gratification that diabetes patients seek in their media preference and uses.

Methodology

Design and area of the study

The researcher applied descriptive survey to achieve the study aim. The study was conducted in Enugu State, Nigeria. Enugu is located in South East Nigeria with three Senatorial zones. Enugu was considered appropriate for the study because evidence in literature [20,21] suggest that there is the prevalence of diabetes in the State.

Study participants

A total of 274 registered diabetes patients were selected from the University of Nigeria Teaching Hospital (UNTH), Ituku-Ozalla, (n=116), Bishop Shanahan Hospital Nsukka (n=34) and Federal Medical Centre Enugu (n=124). One hospital was selected from each senatorial zone. To recruit participants for this study, request letters were written and addressed to the authorities of the health centers. In the letters, the authorities were requested to provide contact details of registered diabetes patients. When this was done, the research team contacted the diabetes patient and requested their consent to participate in the study. Those who agreed were further requested to fill a consent form. Only those who filled the consent form were included in the study. In the consent form, the participants were assured that that information provided will be used solely for the study and that their identities will not be revealed.

Instrument of data collection

The researcher developed a questionnaire to collect data for the study. The questionnaire was divided into two parts. The first part sought the demographics of the participants while the second part sought information on their media preference and use. The response format was a multiple option. To ascertain the reliability of the instrument, a pre-test copy was prepared and administered to diabetes patients (they were not part of the final study). After a period of two weeks, the same instrument was administered to the same respondents, the Guttman scale of reproducibility was used to determine its reliability and this yielded 0.90, an indication of high reliability.

Administration of instrument and analysis techniques

The instrument of this study was administered to the respondents on a face-to-face basis and retrieved immediately. The instrument was administered to the respondents at their private houses. The reason was to further conceal their identities and provide a conducive atmosphere for them to respond to the questionnaire. It was also meant to avoid high attrition rate. For the analysis of data for the study, simple percentages and SPSS version 22 was used.

Results

Sample characteristics

The sample for this study was 62 percent female and 48 percent male. The dominance of female in the sample is not surprising because previous studies [21,22] have shown that there are more female diabetes patients than there are males. The mean age of the respondents was 45 (range 24 and 65 years). Most (89 percent) of the respondents were married. The mean number of years that the respondents had been diabetic was found to be 4 years (range 2 and 6 years). In the area of income, the average annual income of the respondents was 925,000 (range 350,000 and 1,500,000). Most (87 percent) of the respondents were entrepreneurs. This is not surprising because Enugu State is predominantly occupied by the Igbos who is renowned for their

entrepreneurial spirit. Also, 87 percent of the sample was from urban areas.

Table 1 revealed that most of the respondents reported that they prefer the TV followed by radio. This result may have been influenced by the respondent's location because people who are in urban areas are more likely to express preference for TV than those in rural areas.

Table 2 showed that time of the day had a significant influence on the choice of media. While TV was largely preferred at night, newspaper was preferred in the early morning and radio in the afternoon.

Table 3 revealed that longer duration was used in watching TV than consuming any other media. This is because the respondents spend five hours and above watching TV while they spend between 0 to 2 hours reading newspapers.

Table 4 showed that diabetes patients use newspapers for information, TV for entertainment and social media for social integration. TV was also used for personal identity.

Discussion of Findings

This study investigated media preference and use among diabetes patients in Enugu State, Nigeria. The result of this study revealed that TV was the most preferred media among diabetes patients. This result is contrary to a survey conducted by the National Bureau of Statistics [23] which showed that 82.9% of Nigerians have access to radio. A breakdown of the figure reveals that 53.3% only have access to radio, and 30.6% owned radio as against 31.5% and 13.3% access and ownership of television respectively. This result is also inconsistent with that of Hanson, et al. [4] who found that patients preferred that their providers use email, cell phones for texting, and Facebook and cell phone apps for sharing health information. The result also run contrary to that of Bahammam [17] who found that diabetes patients prefer to get information from family members and friends. The difference between this study and other ones could be because of the area of study.

The result of this study also revealed that the media preference of the respondents was influence by time of the day. While TV was mostly preferred at night, newspaper was preferred in the early morning and radio in the afternoon. This result is similar to that of Singh and Singh [3] who studied the media preference of judges and reported that Television programmes was largely preferred at night and late night show. Even though the current study and that of Singh and Singh studied different people, the similarity in the result could be because TV is generally needed at night when most family members must have come back from work.

Table 1 Media preference of diabetes patients.

Media	Frequency	Percent
Radio	39	14.2
TV	165	60.2
Newspaper	36	13.1
Magazine	9	3.3
social media	25	9.1
Total	274	100

Table 2 Media preference and time of use.

			Time and Use				Total
			Early morning	Afternoon	evening	Night	
Media	Radio	Count	4	11	8	16	39
		% of Total	1.50%	4.00%	2.90%	5.80%	14.20%
	TV	Count	8	4	6	146	164
		% of Total	2.90%	1.50%	2.20%	53.30%	59.90%
	Newspaper	Count	12	15	7	3	37
		% of Total	4.40%	5.50%	2.60%	1.10%	13.50%
	Magazine	Count	0	8	0	0	8
		% of Total	0.00%	2.90%	0.00%	0.00%	2.90%
	social media	Count	12	0	0	14	26
		% of Total	4.40%	0.00%	0.00%	5.10%	9.50%
Total		Count	36	38	21	179	274
		% of Total	13.10%	13.90%	7.70%	65.30%	100.00%

Table 3 Duration of media use.

			Duration			Total
			0-2 hours	3-4 hours	5 hours and above	
Media	Radio	Count	8	16	15	39
		% of Total	2.90%	5.80%	5.50%	14.20%
	TV	Count	10	12	142	164
		% of Total	3.60%	4.40%	51.80%	59.90%
	Newspaper	Count	22	11	4	37
		% of Total	8.00%	4.00%	1.50%	13.50%
	Magazine	Count	8	0	0	8
		% of Total	2.90%	0.00%	0.00%	2.90%
	social media	Count	9	5	12	26
		% of Total	3.30%	1.80%	4.40%	9.50%
Total		Count	57	44	173	274
		% of Total	20.80%	16.10%	63.10%	100.00%

Table 4 Reason for media preference and use.

			Media					Total
			Radio	TV	Newspaper	Magazine	Social media	
Media Needs	Information need	Count	12	26	34	2	0	74
		% of Total	4.40%	9.50%	12.40%	0.70%	0.00%	27.00%
	Entertainment reason	Count	16	59	0	0	0	75
		% of Total	5.80%	21.50%	0.00%	0.00%	0.00%	27.40%
	Social integration	Count	6	62	0	0	26	94
		% of Total	2.20%	22.60%	0.00%	0.00%	9.50%	34.30%
	Personal identity	Count	5	17	3	6	0	31
		% of Total	1.80%	6.20%	1.10%	2.20%	0.00%	11.30%
Total		Count	39	164	37	8	26	274
		% of Total	14.20%	59.90%	13.50%	2.90%	9.50%	100.00%

Result also revealed that most of the diabetes patients spend longer duration watching TV than consuming any other media and that diabetes patients use newspapers for information, TV for entertainment and social media for social integration. This result has implications on the Uses and Gratification theory because it suggests that diabetes patients express their media preference and use based on the gratification they have to meet. This is in

line with the postulation of Katz who noted that media audience is active, as such; make use of the media to meet some needs. The result of this study is also consistent with that of Shaffer-Hudkins, et al. [19] who reported that diabetes patients select their media with a view to getting information on treatment and management of the disease.

Conclusion

This study has shown that media preference and use of diabetes patients is largely dependent on time of the day and the type of gratification they seek. The duration for the use of media has also been revealed. This information has implications on health communication in general and communication to diabetes patients in particular. For health communication, this result has provided tips that will form part of a larger strategy when planning and implementing health communication campaigns. Although the result may not be applicable to people with other ailments, it has provided cues on for health communication efforts. With regards to campaigns targeted at diabetes patients, this result has answered specific questions; the type media diabetes patients prefer, the time of the day they use each medium, the duration they use the media and the gratification for using each of the media. This revelation is not only useful to communication health expert, media practitioners and researchers but also advertisers and manufacturers who may want to market special products to diabetes patients. Therefore, the contribution of this study is beyond filling a gap in literature as it can also serve as a working tool for health campaigns. It is also the conclusion of this study that the Uses and Gratification theory have been confirmed by this study. This is evident in the fact that the choice of media by diabetes patients was found to be influenced by the perceived

capacity of the medium to convey the needed information. The preference and use of the media was also found to be determined by expected gratification, this is at the center of the Uses and Gratification theory.

Recommendations

Based on the result of this study, the researcher makes the following recommendations:

1. Health communication should be deeply planned with the understanding of media preference and use of the target population in mind.
2. Advertisers wishing to market products made for diabetes patients should make use of the TV and place their adverts at night.
3. Advertisers who may not have enough money to place their adverts via the TV but still want to reach diabetes patients should place in via the radio in the afternoon.
4. Health communication aimed at reaching diabetes patients should be guided by their media preference and use.
5. Further studies should be expanded to cover more ailments for better understanding.

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