
New Media and Digital Mums: The Role of Social Media in Promoting Healthy Dietary Practices amongst Pregnant Women in Enugu State, Nigeria

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ABSTRACT

This study was on the effectiveness of social media in promoting healthy dietary practices among pregnant women in the Enugu state. The major aim of the work was to ascertain if social media plays any significant role in promoting healthy dietary practices among pregnant women in Enugu state Nigeria. The study employed the survey research design method while the media dependency theory formed the theoretical premise on which the work was hinged. The population of the study was pregnant women in Enugu state and a sample size of 385 was used. A multi-stage sampling method was adopted in getting to the final respondent. The questionnaire served as the research instrument used for the study. Findings showed that the social media had a powerful role to play in enhancing and promoting the proper and healthy engagement of pregnant women and women alike on dietary practices, but the Nigerian contemporary society is yet to utilize this aspect of information acquisition towards the betterment of the society. Based on the findings, it can be recommended that increased efforts should be made towards the effective utilization of social media in propagating useful health information for expectant mothers in Enugu State since it has been established that most contemporary mothers are social media savvy and will always use it in search of useful information.

INTRODUCTION

The process of information acquisition has recorded a dramatic change the world over. It has transcended the traditional media up to the era of the new media, thereby making the quest for information seeking in all spheres of life a serious business which no longer rests on the all-powerful traditional media to dish out the updates it was known for, but now rests on the active audience participation of information seekers as they go on to determine what information they want.

The introduction of the Web 2.0 created the much-heralded opportunity for openness, organization and community as the mass media used to be the sole creator of content. But this also changed as Web publishers began to create platforms that emboldened ordinary people to create content using platforms such as MySpace, Facebook, Twitter, Wikipedia, YouTube, etc. (Alejandro, 2010).

Being a progeny of the internet and birthed by technological innovations, the use of social media technologies such as social networking sites, blogs, and microblogging tools is gaining profound interest in a wide variety of fields (Sjöberg, 2010; Wu & Pinsonneault, 2011) cited in (Osatuyi, 2012). Social media has particularly given rise to user-generated content and encouraged interactivity between the mass media and its audience. It has become a prevalent channel to access information, spread ideas, and influence opinions (Nikolov, Oliveira,

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Flammini, & Menczer, 2015). Validating the assertion, Dominick (2009) states that social media "use special techniques that involve participation, conversation, sharing, collaboration and linkage." This, therefore, makes it stand out from the former way of information seeking using the traditional media of the newspapers, magazines, radio or television.

In Nigeria, however, according to a report by Terragon Group (2018), citing Nigeria Communication Commission (NCC), there are about 100.5 million Internet subscribers in Nigeria, whereas Webclick (2018) reports 103 million Internet subscribers. This is a laudable increase in population when compared to the 2017 statistics report of 91 million users which further decreases exponentially when compared to the 2016 data.

According to Asiodu et.al. (2015), social users, platforms appeared to be the preferred mechanism for obtaining important information during the antepartum and postpartum periods. However, proper dietary practices by pregnant women are greatly influenced by the content and the media through which such content is fetched. Bearing this in mind, the study therefore seeks to ascertain the effectiveness of social media in promoting healthy dietary practices among pregnant women in Enugu state.

STATEMENT OF PROBLEM

Developing nations account for 99% of all maternal deaths in the world (World Health Organization, 2015). Nigeria has one of the highest maternal death rates in the world with the current rate of 576 deaths per 100,000 live births (National Population Commission, 2013). These staggering statistics show that it is important that the major avoidable causes of maternal mortality and adverse pregnancy outcomes are eliminated by looking into the dietary practices of pregnant women to help them achieve safe, healthy, and balanced diets. Insight into the factors influencing their dietary behaviours is therefore quintessential as the knowledge would help pregnant women achieve safe, healthy, and balanced diets, insight into the factors influencing their dietary behaviours. While healthy eating is critical for the health of mothers and their infants, many women do not sustain an optimal diet during pregnancy (Malek, Umberger, Makrides and Zhou, 2015). Some pregnant women's diets lack key nutrients including folate, iron, and fibre or fail to meet some healthy guides for some major food groups such as fruit, vegetables, breads and cereals or grains and meat or their alternatives (Bookari, Yeatman & Williamson, 2017).

On a daily basis, research has shown that women lose their foetus or even die as a result of poor dietary orientation thrust by factors such as financial difficulties in families, problems associated with pregnancy or negatively inculcated habits that go on to grow adverse effects. This has been the case from time immemorial and has consequently, raised concerns among corporate organisations, the government at different levels and concerned individuals and the media. Although ongoing efforts exist in the traditional media towards curtailing health-related problems between the period of pregnancy and childbearing, there exist disparate campaigns in both local and English languages such as the National Orientation Agency (NOA) and United Nations Children Educational Trust Fund (UNICEF) campaign against child mortality rate in South East, the National Zero Water campaign on breastfeeding towards reducing stunting and severe acute 19 malnutrition in the country, among others. But unfortunately, maternal mortality is still on the increase not because the campaigns are not strategic enough, but because these women of childbearing age are not exposed to such messages because of the time factor which they lack, as they barely sit to watch the television while trying to balance their work and family life.

This is a direct consequence of certain nutritional deficiencies caused by poor or unhealthy dietary habits by women in the Nigerian society. Hence, the need for the study, as it seeks to explore the effectiveness of the use of social media as an important tool for promoting positive dietary habits or practices among pregnant women in Enugu state. The study seeks to ascertain the level of exposure and usage of social media among pregnant women and also seeks to find out if there are dietary campaigns on the social media known to pregnant women

in Enugu state that would aid them in better living during the pregnancy period.

Research Questions

1. What is the degree of exposure and usage of social media among pregnant women in the Enugu state?
2. Do pregnant women in the Enugu state engage in healthy dietary practices?
3. What is the place of the social media healthy dietary contents in promoting healthy dietary practices?
4. How effective is the social media in promoting healthy dietary practices among pregnant women in Enugu state?

REVIEW OF RELATED LITERATURE

Social media as a concept

The term social media, also referred to as user-generated media, covers a wide array of different communication outlets including social networking, video- and picture-sharing, blogs, and microblogs (Rutsaert, 2013). Social Media has been defined by many scholars with diverse views and perspectives. While Boyd & Ellison, (2008) sees them as websites which allow profile creation and visibility of relationships between users, Kietzmann et al., (2011) sees them as web-based applications which provide functionality for sharing, relationships, group, conversation and profiles. They are set information technology platforms which facilitate interactions and networking.

The attention to social media is growing exponentially. Social media applications like Facebook, Twitter and YouTube are extremely popular and used by millions of people every day. However, the growth in popularity is only one aspect of social media. The increase in the amount of time people are spending on these applications is changing the way people spend their time online as well as offline, and has major consequences on how people behave, share and interact within their normal daily lives, especially where food-related decision-making, purchasing, preparation and consumption traditionally occupy an important place (Rutsaert, 2013).

Expected Healthy dietary practices among pregnant women

Healthy dietary practice means eating a wide range of foods with abundant nutrients in the right proportions and consuming the right quantity of meals to achieve an overall healthy body state. A healthy diet is a diet that helps to maintain or improve overall health. A healthy diet provides the body with essential nutrition: fluid, macronutrients, micronutrients, and adequate calories. (World Health Organization, Food and Agricultural Organization of the United Nations, 2004).

Nutrition and micronutrient deficiencies have been attributed as a major cause of maternal and infant mortality. The prevalence of anaemia among women in the reproductive age group is 17%. In addition, the prevalence of underweight among women in reproductive age is 28%, and subclinical iodine deficiency during pregnancy is 82.8% (Darnton, 2015).

The need for healthy dietary practices from above, cannot be overemphasised as the neglect of healthy dietary practices leads to a whole lot of negativities or problems before, during and even after pregnancy.

Information acquisition through social media among pregnant women

Pregnancy is an important time to increase women's awareness about healthy eating. Pregnant women recognize diet as important to fetal health and are more likely to be mindful of nutrition, seek health advice, and modify their diets. Nutrition knowledge has been positively associated with maternal dietary behaviour and the use of supplements. Nutrition education also has been shown to have beneficial effects on pregnancy

outcomes, reducing the number of infants born with so much fat, reducing the incidence of respiratory distress syndrome, and producing shorter lengths of stay in hospitals.

In contemporary times, almost everybody uses social media for disparate reasons and gains. Fortunately, pregnant women are not an exception, as they use social media to find out very much about their status as they follow forums/groups that help teach them certain pregnancy tips and techniques as well as dietary needs or nutrition updates and techniques. This is why they go all out into social media to source relevant information concerning their pregnancy periods.

Empirical review

For the purpose of placing this research work in its rightful place in history, the study reviews relevant and related works of other authors and researchers alike in order to enrich and strengthen the substance of the content of the study.

Yang and Baker (2018) carried out a study that examined "Social Media as Social Support in Pregnancy and the Postpartum", based on the rapidly growing use of social media and its influence on society. A survey link or QR, quick read code was provided to new mothers in the postpartum setting of an academic medical centre, posted on the hospital-hosted website for new mothers and shared with Centering Pregnancy groups at the research hospital. The survey link was available for 4 weeks and 117 mothers from 64 different zip codes across the United States completed the survey. The study found that the main source of social support came from their current partner (92%). It also found out that 43% used blogs to communicate with other mothers, 99% used the internet for answers to parenting questions, 89% used social media sites for questions and advice related to pregnancy and/or their role as a parent, and 84% considered social media friends a form of social support. The study, therefore, recommended that providers of healthcare should become familiar and comfortable with social media resources to support mothers of young children since social media plays a substantial role in the lives of mothers today.

Similarly, Khlood, et al. (2017) carried out a study entitled "Informing Nutrition Care in the Antenatal Period: Pregnant Women's Experiences and Need for Support". The study aimed at providing insights into Australian women's experiences in gaining nutrition information during pregnancy. Individual semi-structured telephone interviews were conducted with 17 pregnant women (across all trimesters) and 9 postpartum women in five Australian states. Data were transcribed and analysed using inductive thematic analysis. The study found that "women valued nutrition information, actively sought it, and passively received it mainly from three sources: healthcare providers (HCPs), media, and their social networks."

Also, Oluleke, et al. (2016) embarked on a study that investigated the "dietary intake knowledge and reasons for food restriction during pregnancy among pregnant women attending antenatal clinics in Ile-Ife, Nigeria." It used a cross-sectional survey involving 530 pregnant women visiting 35 primary health care (PHC) centres in Ile-Ife and made use of an Interviewer-administered questionnaire to collect data that included a 30-point knowledge scale and food restriction-related questions. Data were analysed using descriptive statistics and chi-square at $p = 0.05$. The study found that "respondents were knowledgeable about dietary intake. However, cultural taboos and religious beliefs were major reasons for food restriction among pregnant women and were more pronounced among women with low education and low monthly income." It, therefore, recommended that nutrition education interventions are needed to address the phenomenon.

Despite the data evident in some of the stated empirical reviews, it is obvious that these can only be used as generalizations as specific state-related information is still lacking. These data when gotten will help the Nigerian government and other health practitioners in producing and disseminating health-related information meant for pregnant women based on individual state peculiarities.

Theoretical framework

This study is pegged on the media dependency theory which is a systematic approach to the study of the effects of mass media on audiences and of the interactions between media, audiences, and social systems. It was proposed by Sandra Ball-Rokeach and Melvin DeFleur in 1976. Media Dependency theory is one of the theories, first of its kind which regards the audience as an active part of the communication process. The theory postulates that in industrialized and information-based societies, individuals tend to develop a dependency on the media to satisfy a variety of their needs, which can range from a need for information on a particular issue to a need for relaxation and entertainment. The applicability of the theory to this study is therefore rooted in its postulation on the extent of the media's influence which is directly related to the degree of dependence of individuals and social systems on the media. Given this stand, pregnant women are dependent on several media platforms to get quality information that would make their pregnancy periods a healthy and successful one, one without issues.

METHODOLOGY

This study used the survey design. The use of survey research design was because it is suitable to explore, describe as well as explain the phenomenon. It is a quantitative method of conducting research and involves sampling a large number of respondents (Ohaja, 2003). For the purpose of this study, the target population consists of all the women residents in Enugu State. According to the 2006 census figures, Enugu state has a female population of 1,671,795. Due to the fact that the population increased between the period of the 2006 census till now, there is a need for projections to be made in order to determine the current population. To do this, the researcher approximated the 2006 women national census population of Enugu state using the United Nations Development Program (UNDP) population projection ($1+3.2/100 \times \text{number of years}$). The calculation is as follows:

$$1+3.2/100 \times 13 \text{ years}$$

$$\text{Where } 3.2/100 = 0.032$$

$$\text{Add } 1+0.032 \times 13 = 1.416$$

$$\text{Thus, } 1,671,795 \times 1.416 = 2,367,262$$

Therefore, the projected population of women in Enugu state is 2,367,262.

In selecting an appropriate sample for the study, the Australian sample size calculator was used. The sample size of this study was made of 385 mothers. In the calculator, the confidence level is 95%, the confidence interval is 0.05 and the proportion of 0.5 were the constants keyed into the calculator alongside the population size of 2,367,262. A sample size of 385 was obtained from the calculation to represent the entire population.

Determine Sample Size	
Confidence Level:	95% ▼
Population Size:	2367262
Proportion:	0.5
<input type="radio"/> Confidence Interval:	0.04998
Upper	0.54998
Lower	0.45002
<input type="radio"/> Standard Error	0.02550
<input checked="" type="radio"/> Relative Standard Error	5.10
<input type="radio"/> Sample Size:	385
<input type="button" value="Calculate"/> <input type="button" value="Clear"/>	

In this study, the multi-stage sampling technique was adopted. In the first stage, the cluster sampling technique was used to cluster Enugu state into senatorial zones named, Enugu East, Enugu North and Enugu West Senatorial zones. Purposive sampling technique was implemented through the use of the questionnaire by carefully identifying and selecting pregnant mothers in Enugu state, while the accidental sampling technique was implemented to share out questionnaires to all pregnant mothers seen at the particular time the questionnaire was shared. The copies of the questionnaire were administered in the selected rural communities using the convenience sampling technique, a non-probability sampling that involves the sample being drawn from that part of the population that is accessible.

The questionnaire was employed as the instrument of data collection. The questionnaire served as a guide for the respondents in the selection of answers from the options provided. The questionnaire was divided into two sections; section A and section B which contained the demographic information of the respondents and contextual questions relating to the study.

DATA PRESENTATION AND ANALYSIS

In analyzing the collated data, a total of 385 copies of the questionnaire were distributed. This represents the sample size of the study ascertained using the Australian online sample size calculator. Out of the total copies of the questionnaire distributed, 380 copies were returned valid, 98.7%, while 5 copies of the questionnaire representing 1.3% were rendered invalid on the grounds that the respondents did not finish the questions or they were not filled appropriately.

Analysis of demographic data of respondents

Table 1. Age distribution of the respondents

Response	Frequency	Percentage (%)
18-28	156	41
29-38	160	42
39-48	56	15
49 and above	8	2
Total	380	100

The table above shows the dominance of respondents from the age range of 26-33. However, the difference between respondents aged 18-25 and 26-33 is marginal. Thus, a majority of the responses came from people aged between 26 and 33 which is the age bracket for active childbearing.

Table 2. Educational level of respondents

Response	Frequency	Percentage
Primary	82	21.6
Secondary	120	31.6
Tertiary	178	46.8
Total	380	100

The table above shows that the educational level of the dominant respondents is people with their tertiary qualifications. However, the difference between respondents between tertiary and secondary is not that wide. It should be noted, however, that the outcome of this study is not dependent on their educational status.

Table 3. Responses on their knowledge of the existence of social media platforms.

Response	Frequency	Percentage (%)
Yes	380	100
No	0	0
Undecided	0	0
Total	380	100

The above distribution illustrates that all 380 respondents representing 100% of pregnant women know what social media is in existence. This knowledge level as indicated in the table above is an indicator of their level of awareness and use of social media in their everyday lives.

Table 4 .responses on their use of social media to get health-related information during pregnancy

Response	Frequency	Percentage (%)
Yes	160	44.9
No	196	55.1
Undecided	0	0
Total	356	100

The table above shows that the dominant response on the use of social media to get information during pregnancy is No. However, the difference between respondents No and Yes is .This implies that these pregnant mothers use the social media to source other categories of information outside dietary needs.

Table 5. Responses on how effective the social media is in promoting healthy dietary practices.

S/N	Responses	Frequency	Percentage (%)
32.	It helps me ensure I have balance diet all the time.		
	f. Strongly Agree	160	100
	g. Agree	0	0
	h. Neutral	0	0
	i. Disagree	0	0
	j. Strongly Disagree	0	0
		160	100
33.	It helps me regulate what I consume		
	f. Strongly Agree	160	100
	g. Agree	0	0
	h. Neutral	0	0
	i. Disagree	0	0
	j. Strongly Disagree	0	0
		160	100
34.	It helps me get updated information on healthy dietary practices.		
	f. Strongly Agree	160	100
	g. Agree	0	0
	h. Neutral	0	0
	i. Disagree	0	0
	j. Strongly Disagree	0	0
		160	100
35.	It helps me choose the right food to consume and at what time.		
	f. Strongly Agree	160	100
	g. Agree	0	0
	h. Neutral	0	0
	i. Disagree	0	0
	j. Strongly Disagree	0	0
		160	100

The above distribution illustrates that respondents use the information gotten from social media to promote healthy dietary practices.

DISCUSSION OF FINDINGS

The result of this study reveals that all of the respondents know what social media is. However, a greater majority of the respondents (356) are exposed to and use the respective platforms such as Facebook, Instagram and WhatsApp, LinkedIn, etc. Often. This result is similar to that of Yang and Baker (2018) who studied Social Media as Social Support in Pregnancy and Postpartum and found out that pregnant women used among other sources of social support, social media sites for questions and advice related to pregnancy.

Findings on whether pregnant women in the Enugu state engage in healthy dietary practices as a result of their exposure to the health information on social media reveal that respondents engage in healthy dietary practices. This is evident in their attitude towards the use of information got from social media in ensuring that they do not consume spoil/unhealthy foods, check on the changes that occur in their body when they eat certain foods, follow doctor's instructions on their eating habits, as well as ensure they have a balanced diet all the time. This finding is related to that of Oluleke, et al. (2016) who studied the dietary intake knowledge and reasons for food restriction during pregnancy among pregnant women attending antenatal clinics in Ile-Ife, Nigeria and found out that respondents were knowledgeable about dietary intake.

CONCLUSION

Coming at a time when the social media is contemporaneous and a significant aspect of everyday life, coupled with its features and characteristics that makes it better preferred to all other media of communication, social media appears to be at the forefront of the new era of the information explosion age. People can now get information on certain issues and seek help where necessary without leaving the comfort of their homes or offices. A number of valuable conclusions can however be deduced from the findings of this study. From a theoretical prism, the media dependency theory which is a systematic approach to the study of the effects of mass media on audiences and of the interactions between media, audiences, and social systems, reveals that in an information-based society like Nigeria, individuals tend to develop a dependency on social media to satisfy a variety of their needs, which can range from a need for information on a particular issue to a need for relaxation and entertainment. While social media has its powerful role to play in enhancing and promoting the proper and healthy engagement of pregnant women and women alike on dietary practices, the Nigerian contemporary society is yet to utilize this aspect of information acquisition towards the betterment of the society

RECOMMENDATIONS

Based on the findings from this study, the following recommendations would be made:

1. Hospitals, doctors, nurses and medical personnel in general should try as much as possible to have a virtual presence on the different social media platforms. This is to enable people that might be in need of medical or health related advices to easily get across to them without having to step out of their comfort zones. This marked on the findings of the study which shows that a greater majority of the respondents are exposed to and use the respective platforms as Facebook, Instagram and WhatsApp, LinkedIn, etc. often.
2. Highly trained medical personnel and individuals that would impact high health-related knowledge should also ensure they cue into the powerful place of social media so as to get the appropriate information passed across to those that might them at any point in time, as the results from this study show that the social media is quite effective in promoting healthy dietary practices among pregnant women despite being underutilised.
3. Pregnant women should be made aware of the ability of social media to provide them with the requisite health-related information they might need at any point in time and should be encouraged to have an online presence. This is because findings from this study reveal that a greater percentage of the respondents do not use social media to get information on healthy dietary practices but use it for other reasons.
4. More social media groups, pages, blogs, etc. should be created to assuage the information need of the era. But these aspects of social media should also be examined to ascertain the validity of the contents, as inappropriate information may be injurious to the healthy state of pregnant mothers during pregnancy. This is on the basis that findings from this study show that social media is quite effective in promoting healthy dietary practices among pregnant women despite being underutilized.

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INTERNET MATERIALS

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- <https://www.albany.edu/~drewa/health/practices.html>
- https://www.breastcancer.org/tips/nutrition/healthy_eat
- <https://www.who.int/news-room/fact-sheets/detail/healthy-diet>
- <https://www.dovepress.com/exploring-australian-women-s-level-of-nutrition-knowledge-during-peer-reviewed-fulltext-article-IJWH>