

# **Social Media Use and Students' Health-Lifestyle Modification in University of Calabar, Nigeria**

**Ntongha Eni Ikpi**

Department of Sociology, University of Calabar

**Veronica Akwenabuaye Undelikwo**

PhD, Department of Sociology, University of Calabar

## ***Abstract***

The use of social media platforms has over the years become a veritable tool for individuals, groups, institutions and corporate bodies for the promotion of health and wellness. In recent times, social media has become one of the most potent agents of the media through which health issues are addressed as well as generated and disseminated to different populations in society. The study was conducted to examine social media use and students' health lifestyle modification in the University of Calabar, Nigeria. It sought to determine the extent to which students' use of social media (Facebook, Twitter, and WhatsApp) influences the modification of their health-related lifestyles such as eating habits, sexual behaviour, cigarette and alcohol consumption, drug use and the engagement in fitness activities. The study adopted a randomized descriptive survey design and used a sample of 300 undergraduate students. The questionnaire was the main instrument used for collection of data while simple percentages and means were used to determine the difference between the expected mean of 2.50 and the observed means across various items in the questionnaire. The results showed that apart from Twitter, social media use by University of Calabar students has significantly influenced the modification of their health lifestyles. Since social media has become a veritable tool for the promotion of positive health lifestyle, effort should be made by government through the health sector to create more awareness among students and the entire population of social media users, on the health benefits accruing from use of social media.

**Keywords:** social media, Facebook, Twitter, WhatsApp, health-lifestyles modification

## **Introduction**

The world of Information and Communication Technology (ICT) added great value following the emergence of social media, which has made the world a real global

village. This is because the substantial growth of social networking sites within the last decade has facilitated the removal of time and space barriers that impeded people's interconnectivity, and rather provided them with greater prospects for the maintenance of existing social ties and expansion of social networks (Zhang, He, & Sang, 2013). Social media, by definition, is the collection of online communication channels dedicated to community-based input, interaction, content-sharing and collaboration. Reddy, Ishwarya, and Mulupuri (2015) view them as computer-mediated tools that allow people to create, share or exchange information, ideas, and pictures/videos in virtual communities and networks. Social media are designed in two forms: the open social media (which includes Facebook, Twitter, Google+, Instagram, YouTube, Orkut, and all online sites that allow the sharing of general purpose information), and the specific purpose or intentionally designed social media (which includes MyHeritage, Classmates.com, Studivz, Flixter, LinkedIn, Reddit, Pinterest, Redbrick Health, PatientLikeMe, and all other online platforms that are used for specific purposes like business, sports, politics, health, etc).

In modern society, the application of social media in the health purview has gained unparalleled popularity over the past few years and shows tremendous potential (Coiera, 2013), as their functions are known to be effective in improving access to health information by users (Freyne, Berkovsky, Kimani, Baghaei, & Brindal, 2010), engagement of families in lifestyle changes (Baghaei, Kimani, Freyne, Brindal, Berkovsky, & Smith, 2011), and motivating weight loss (Hwang, Ottenbacher, Green, Cannon-Diehl, Richardson, Bernstam, & Thomas, 2010). In other words, various social media networks serve as veritable tools in the hand of corporate bodies, institutions, groups, and individuals for the promotion of health and wellness. This is succinctly captured by Elan (2012) who also saw the health benefits of social media to include facilitating group relations, building (online support) communities, normalizing help seeking behaviour, rousing healthy lifestyle modification, and building medical investigation. Consequently, the World Health Organization (WHO) is seriously leveraging the social media, (via Facebook and Twitter) to manage global health crises arising from HIV/AIDS, natural disasters, Ebola, diabetes, hypertension, tuberculosis, cancer, etc. As Olson (2012) noted, WHO may be on the leading edge of using social media to manage global humanitarian responses. Individuals on the other hand use social media to get useful health-related information, including social support, which promotes better-informed treatment decisions (Laranjo, Arguel, Neves, Gallagher, Kaplan, Mortimer, Mendes, & Lau, 2015) as well as health lifestyle modification (Baghaei, Kimani, Freyne, Brindal, Berkovsky, & Smith, 2011). For House (1981), Emotional, appraisal, informational and instrumental are categories of support from social media that influences health. Such support could boost one's abilities to deal with stressful health challenges, resulting to enhanced and improved health outcomes (Dimatteo, 2004).

Health lifestyles are known to greatly determine health. They constitute an influential factor that determines the healthiness or otherwise of individuals and populations in

society. To Cockerham (2001), the collective patterns of health-related behaviour due to the choices from the available options to people according to their life chances is referred to as health lifestyles. Health lifestyle issues border on eating habits, sexual behaviour, cigarette and alcohol consumption, drug use, exercise, medical checkups, dealing with stress, etc. In modern times, the role of health lifestyles in improving the health of people has gained much prominence (Cockerham, 2001). This development, according to Crawford (1984), is borne out of three factors: (i) the public recognition that disease patterns has changed from acute or contagious to chronic diseases that medicine cannot cure; (ii) the understanding that various health disasters, such as AIDS and cigarette-induced lung cancer, are caused by specific styles of living; and (iii) emphasis on lifestyle change and individual responsibility for health through the virtual campaigns by the mass media and health care providers. In recent times, social media has become one of the most potent agents of the media through which health issues are generated and disseminated to different populations in society. Consequently, studies whose interest borders on the social media and health have continued to grow. Some of such studies include that of Lee, DeCamp, Dredze, Chisolm, & Berger, (2014); Scandfeld, Scandfeld, & Larson (2010); Elan (2012), Zhang, He, and Sang (2013), Zhang (2012), Laranjo, et al (2015), Baghaei, et al (2011), House (1981), Dimatteo (2004), etc. The preoccupation of this study, therefore, is to determine whether the students' use of social media networks such as Facebook, Twitter, and WhatsApp influence the modification of their health lifestyles.

## **2. Statement of the problem**

Students of University of Calabar constitute a very unique population that is known for their displays of distinctive lifestyle patterns that have direct bearing on their health and wellbeing. Being a predominantly youthful population, University of Calabar students adopt all manner of lifestyle patterns, which make them highly prone or vulnerable to health challenges. It has been observed that following their attainment of independence from parent and significant others, as a result of admission into the university, several students get involved in risky health lifestyles such as licit or illicit drug use and abuse, unregulated and unprotected sexual activities, improper feeding habits and dieting, trending fads and fashion, health-breaking competitions, club and cult activities, etc. which sometimes result in their development of health problems in the short or long run. As Wang, Xing, and Wu (2013) observed, several researches have shown that many college or university students display less of positive or health promoting lifestyles and more of risky behaviours that challenge their health in the short and long run. Such studies include that of Steptoe and Wardle (2001); Lee and Loke (2005); Laska, Pasch, Lust, Story, and Ehlinger (2009); Rozmus, Evans, Wysochansky, and Mixon (2005); Jorgensen and Maisto (2008).

However, the University of Calabar students are known to be among the most predominant users of the social media, employing it for both academic and non-

academic related purposes. Meanwhile, very little is known about their use of the social media for health-related purposes such as the promotion of healthiness and wellness through the sharing and consumption of vital or relevant health information for lifestyle modification. This study therefore seeks to determine the extent to which use of social media by students of the University of Calabar, Nigeria, promotes health-lifestyle modification.

### **3 Objectives of the study**

The study was designed to investigate social media use and the modification of health lifestyles by students of the University of Calabar, Nigeria. Specifically, the study sought to:

Determine the extent to which use of Facebook by students of the University of Calabar promotes health-lifestyle modification;

Ascertain the extent to which use of Twitter by students of the University of Calabar promotes health-lifestyle modification;

Determine the extent to which use of WhatsApp by students of the University of Calabar promotes health-lifestyle modification.

### **4. Research questions**

The study sought to answer the following questions:

To what extent does the use of Facebook by students of the University of Calabar promote health-lifestyle modification?

To what extent does the use of Twitter by students of the University of Calabar promotes health-lifestyle modification?

To what extent does the use of WhatsApp by students of the University of Calabar promotes health-lifestyle modification?

### **5. Literature review**

The emergence of the social media constitutes a veritable tool for the dissemination and sharing of health information in modern society. This has thus brought a remarkable breakthrough in the promotion of individual and collective responsibility for healthy living. The understanding that the global burden of non-contagious diseases nowadays is due to lifestyle behaviours, there is increasing emphasis on the use of the social media to combat this development (Narayan, Ali, and Koplán, 2010; Smith and Christakis, 2008; and Fowler and Christakis, 2008). Centola (2013) observed that the rising recognition of using social media sites like Facebook and Twitter for improved health has also escalated the commercial applications that present fundamental new approaches. For instance to promote compliance with planned health regimens, companies like Redbrick Health, Stay Well and Healthways have been using online social support platforms. Strømme, Mosdøl, Nordheim and

Vist (2014), and Elan (2012) also noted in their studies that individuals, businesses, organizations and others spread health related content in social media, which inspire healthy lifestyle changes. For Elan (2012), to achieve health goals such as starting an exercise plan, losing weight, lowering blood pressure or cholesterol and quitting smoking, many people use social media as a motivational tool. He noted further that to foster an anti-smoking culture among the youths in South Australia, health promotion experts are working at using social media like Facebook and Twitter by developing an evidence-based website that will highlight data about smoking and the tobacco industry with the aim at using peer pressure to stop the youths from taking up smoking. Umberson, Crosnoe, and Reczek (2010) have observed that to aid our understanding of how social networks influences the collective dynamics of health behaviour, recent studies of large network data sets have made important advances. For example, Howard (2010) maintained that people fighting chronic illnesses are finding information and connecting with others suffering from similar illnesses through the use of social media. Salathé and Khandelwal (2011) reported that a range of social tools such as Google+, Twitter, Facebook, etc have produced innovative opportunities to draw the interactions between health and social connectivity. They added that on the dynamics of opinion dissemination on health behaviours, recent work using open social technologies has provided significant new insights. For instance, studies on Twitter networks have found that sentiment about vaccines can be propagated through chains of Twitter feeds.

## **6. Research methods**

### **6.1 Research design**

The study adopted the randomized cross-sectional survey design. This is because the main aim of survey is to measure knowledge, attitude and value. Thus, since the study is to determine an attitudinal issue, which is social media use and promotion of health lifestyle modification, use of survey design becomes inevitable.

### **6.2 Research setting**

The study area is the University of Calabar, Calabar. The University of Calabar, popularly known as Unical is one of the second-generation federal universities in Nigeria. It is located in Calabar, the capital of Cross River State, Nigeria. It was formerly a campus of the University of Nigeria (UNN) Nsukka, but gained the status of a full-fledged university in 1975, with the motto "knowledge for service". University of Calabar is a coeducational higher institution with an enrolment range of 40,000 to 44,999. Its male students are referred to as "malabites" while its female students are referred to as "malabresses".

It has a good number of academic programmes run within different colleges, institutes, and faculties which include Agriculture, Allied Medical Sciences, Art, Basic Medical Sciences, Biological Sciences, College of Medicine and Dentistry, Law, Physical Sciences, Education, Social Sciences, Management Sciences and Institute of

Oceanography, Unical Consultancy services, and the Graduate School. University of Calabar also provides, or serves as a fertile ground for the provision of other non-educational services such as health care (medical) centre; banking services; accommodation for staff and students; hospitality, recreation, religious, transport, and entertainment services; including agricultural or farming services etc. Furthermore, the growth of the University of Calabar, with its attendant increase in students' enrolment, has given rise to the establishment and operation of a lot of other formal and informal economic activities to service the needs of both staff and students of the university. They include banks, communication outfits, fast food joints, restaurants, pharmaceutical shops, transport companies, ICT centres, and a host of other outfits that deliver economic services to staff and students. Also, University of Calabar hosts a large number of students and non-students who are known to be among the largest users of social media networks such as Facebook, WhatsApp, Twitter, Instagram, LinkedIn, etc.

### 6.3 Sample and sampling technique.

The study used a sample of three (300) hundred undergraduate male and female students. They were drawn in equal proportion (50 each) from six (6) faculties through the simple random and accidental sampling techniques. The faculties include Social Sciences, Education, Arts, Sciences, Management Sciences, and Agriculture.

### 6.4 Research instrument

The study used the structured questionnaire to elicit responses from respondents on the issues under investigation. Social media use and students' health lifestyle modification was assessed using a four-point Likert scale order –Strongly Agreed (SA), Agreed (A), Disagreed (D) and Strongly Disagreed.

## 7. Result and discussion of findings.

7.1 Question 1: to what extent does the use of Facebook by students of the University of Calabar promote health lifestyle modification?

Table 1: Frequency distribution and percentage analysis of Facebook use and health lifestyles modification by students of University of Calabar.

Health lifestyle modified	SA (%)	A (%)	D (%)	SD (%)	Expected Mean ( $\bar{x}$ )	Observed Mean ( $\bar{x}$ )	Remark
Eating habits	77 (25.7)	79 (26.3)	80 (26.7)	64 (21.3)	2.50	2.56	Remarkable
Avoidance of unprotected sexual behaviour	70 (23.3)	81 (27.0)	82 (27.3)	67 (22.3)	2.50	2.51	Remarkable

Carry out regular fitness activities	59 (19.7)	84 (28.0)	97 (32.3)	60 (20.0)	2.50	2.47	Unremarkable
Avoidance of use of tobacco product	68 (22.7)	87 (29.0)	80 (26.7)	65 (21.7)	2.50	2.53	Remarkable
Avoidance of alcohol use	68 (22.7)	84 (28.0)	96 (32.0)	52 (17.3)	2.50	2.56	Remarkable
Use of prescription drugs	50 (16.7)	90 (30.0)	90 (30.0)	70 (23.3)	2.50	2.40	Unremarkable

Source: Field survey, 2018.

The result from table 1 revealed the number of responses with percentages in brackets, as well as the expected and observed means of the respondents. Result of item one which seeks to determine whether use of Facebook modifies the eating habits of students revealed that the observed mean of 2.56 is greater than the expected mean of 2.50. This implies that the use of Facebook has helped in modifying the eating habits of University of Calabar student. Result of item two also revealed that the observed mean of 2.51 is also greater than the expected mean of 2.50, implying that use of Facebook has modified the sexual lifestyle of University of Calabar students. Item three sought to determine whether the use of Facebook influences the engagement in regular fitness activities or exercise, and results revealed that the observed mean of 2.47 is less than the expected mean of 2.50. This implies that Facebook use has not helped to modify the students' lifestyles in terms of making them engage in regular fitness activities. Result of item four showed an observed mean of 2.53 which is greater than expected mean of 2.50 implying that use of Facebook has modified their tendencies towards use of tobacco products. Finally results in items five and six revealed observed means of 2.56 and 2.40 respectively as against the expected mean of 2.50. These imply that use of Facebook has modified the students' use of alcohol, but has not modified their use of prescription drug. In other words, the results in table 1 shows that Facebook use by students of University of Calabar has significant influence on the modification of their health life styles.

7.2. Question 2: to what extent does the use of Twitter by students of the University of Calabar promote health lifestyle modification?

Table 2: Frequency distribution and percentage analysis of Twitter use and health lifestyles modification by students of University of Calabar.

Health lifestyle modified	SA (%)	A (%)	D (%)	SD (%)	Expected Mean ( $\bar{x}$ )	Observed Mean ( $\bar{x}$ )	Remark

Eating habits	61 (20.3)	91 (30.3)	92 (30.7)	56 (18.7)	2.50	2.52	Remarkable
Avoidance of unprotected sexual behaviour	54 (18.0)	84 (28.0)	88 (29.3)	74 (24.7)	2.50	2.39	Unremarkable
Carry out regular fitness activities	54 (18.0)	99 (33.0)	89 (29.7)	58 (19.3)	2.50	2.50	Remarkable
Avoidance of use of tobacco product	55 (18.3)	77 (25.7)	106 (35.3)	62 (20.7)	2.50	2.42	Unremarkable
Avoidance of alcohol use	48 (16.0)	77 (25.7)	101 (33.7)	74 (24.7)	2.50	2.33	Unremarkable
Use of prescription drugs	50 (16.7)	82 (27.3)	97 (32.3)	71 (23.7)	2.50	2.37	Unremarkable

Source: Field survey, 2018.

The results from table 2 revealed the number of responses with percentages in brackets, as well as the expected and observed means of the respondents. Result of item one which seeks to determine whether use of Twitter has helped in modifying the students' eating habits revealed an observed mean of 2.52 which is greater than the expected mean of 2.50 and thus shows that Twitter use has helped in the modification of the students' eating habits. Result of item two revealed an observed mean of 2.39, which is lower than the expected mean 2.50. This implies that the use of Twitter has not modified the number of sexual partners University of Calabar students keep. Result of item three also revealed an observed mean of 2.50 which is equal to the expected mean of 2.50, implying that use of Twitter has perfectly modified the practice of regular fitness activities by University of Calabar students. Item four sought to determine whether the use of Twitter has modified their use of tobacco product, and results revealed that the observed mean of 2.42 is less than the expected mean of 2.50. This implies that Twitter use has not modified the use of tobacco product. Result of item five which sought to determine whether use of Twitter has modified their attitude towards alcohol use showed an observed mean of 2.33 which is less than expected mean of 2.50 implying that use of Twitter has not modified their attitude in this regard. Results in items six which sought to determine whether Twitter use has modified the students' attitude towards the use of prescription drugs, revealed an observed mean of 2.37 which is less than the expected mean of 2.50, implying that Twitter use has not modified their lifestyle in that direction. In other words, the results in table 2 show that Twitter use by students of University of Calabar has no significant influence on the modification of their health life styles.



### 7.3. Question 3: to what extent does the use of WhatsApp by students of the University of Calabar promote health lifestyle modification?

Table 3: Frequency distribution and percentage analysis of WhatsApp use and health lifestyles modification by students of University of Calabar.

Health lifestyle modified	SA (%)	A (%)	D (%)	SD (%)	Expected Mean ( $\bar{x}$ )	Observed Mean ( $\bar{x}$ )	Remark
Eating habits	74 (24.4)	98 (32.7)	74 (24.7)	54 (18.0)	2.50	2.64	Remarkable
Avoidance of unprotected sexual behaviour	61 (20.3)	89 (29.7)	79 (26.3)	71 (23.7)	2.50	2.47	Unremarkable
Carry out regular fitness activities	78 (26.0)	101 (33.7)	74 (24.7)	47 (15.7)	2.50	2.70	Remarkable
Avoidance of use of tobacco product	69 (23.0)	95 (31.7)	85 (28.7)	57 (17.0)	2.50	2.63	Remarkable
Avoidance of alcohol use	59 (19.7)	89 (29.7)	72 (24.0)	80 (26.7)	2.50	2.42	Unremarkable
Use of prescription drugs	67 (22.3)	97 (32.3)	76 (25.3)	60 (20.0)	2.50	2.57	Remarkable

Source: Field survey, 2018.

The results from table 3 revealed the number of responses, with percentages in brackets, as well as the expected and observed means of the respondents. Result of item one which seeks to determine whether use of WhatsApp influences the students' modification of eating habits revealed an observed mean of 2.64 which is higher than the expected mean of 2.50. This implies that the use of WhatsApp has influenced their eating habits. Result of item two, which seeks to determine whether use of WhatsApp influences their attitude of unprotected sex revealed an observed mean of 2.47 which is less than the expected mean of 2.50, implying that use of WhatsApp has not modified the attitude of engaging in unprotected sex. Item three sought to determine whether the use of WhatsApp has modified their attitude towards regular fitness activities, and results revealed that the observed mean of 2.70 is greater than the expected mean of 2.50. This implies that WhatsApp use actually modified the students' attitude towards regular fitness activities. Result of item four which sought to determine whether use of WhatsApp has promoted their attitude towards tobacco product showed an observed mean of 2.63 which is greater than the expected mean of 2.50 implying that use of Facebook significantly modified their attitude in that

regard. Results in items five which sought to determine whether WhatsApp use has modified the quantity of alcohol they consume, revealed an observed mean of 2.42 which is less than the expected mean of 2.50 implying that WhatsApp use has not modified their lifestyle in that direction. Item six sought to determine whether WhatsApp has significantly improved their knowledge of the dangers of illicit use of prescription drugs. The result showed that WhatsApp has influenced the students with an observed mean of 2.57, which is greater than the expected mean of 2.50. In other words, the results in table 3 show that WhatsApp use by students of University of Calabar has significant influence on the modification of their health life styles.

## **Discussion**

The findings reveal that use of social media platforms by students of University of Calabar has significantly influenced the modification of their health lifestyles. In other words apart from Twitter, their use of Facebook and WhatsApp has shown significant influence on the modification on their lifestyles and attitudes in various health related issues that were measured. The results showed that the three social media platforms have significantly affected the students' modification of their eating habits. Twitter and WhatsApp have also influenced their regular involvement in fitness activities. Their use of tobacco product has been influenced by the use of Facebook and WhatsApp while Twitter has no effect in this regard. The finding is in agreement with some studies like that of Chou, Hunt, Beckjord, Moser, and Hesse (2009), Centola (2013) and ALrukban (2014). Chou et al (2009), for instance, averred in their study that social media has become a permanent part of public health and is employed in various healthcare activities such as web-based appointment scheduling, online guidance for withdrawal from smoking and weight reduction. Also, Centola (2013) in his work maintained that the growing popularity of social media sites like Facebook and Twitter has also given rise to applications that provide new and far-reaching methods towards the use of social media for improved health. For instance, companies such Redbrick Health, StayWell, and Healthways have started promoting compliance with designed health regimens using online social support platforms and that through extensive recruitment and regular interactions, these sites create communities that encourage increased involvement in exercise and diet programs among their members. Similarly, ALrukban (2014) in a study of 816 social networking sites (SNS) users, found that over 81% of the study population using social networking sites have benefited from health information from social networking sites and 93.5% of users advocated the use of SNS to create awareness about harmful habits.

## **Conclusion/ Recommendations**

Although social media use has become a veritable tool for the promotion of health in modern society, students of the University of Calabar are yet to take full advantage of the health gains inherent in it since some health life-styles have not been modified through the social media platforms. Stakeholders in the health sector should be

encouraged to collaborate with social media service providers to ensure greater utility of the technology for the dissemination of health information to society in general and students in particular. Social media service providers should be encouraged to partner with university authorities in order to expand the health information dissemination to students. Students should be encouraged to put their social media use to more health promoting purposes. In other words, more awareness need to be created on the health benefits of social media use as majority may be ignorant of such benefits

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