

**THE CON-TRIAD RESPONSE IN THE PROMOTION OF HEALTHCARE FROM A
SOCIAL NETWORKING SITE:
THE INTERACTIVITY OF PROMOTERS AND CONSUMERS IN FACEBOOK**

**Caroline V. San Diego^{2,3,4}, Rosanna P. Suva^{2,3,4}, Gerardo A. Nicolas^{2,3,4}, Jenica Ana A. Rivero^{2,3,4},
Michael Joseph S. Diño^{1,2,3,4}, Isabel Paula C. Ibaretta^{2,3,4}, Kathreen Alexis C. Ferrer^{2,3,4},
John Bervin S. Galang^{2,3,4}, Lady Valerie Mae V. Hilo^{2,3,4},
Jerolly C. Jayme^{2,3,4}, Apple Grace O. Morales^{2,3,4}**

The Graduate School¹
College of Nursing²
Research Development and Innovation Center³
Our Lady of Fatima University⁴

Email: ayka36@yahoo.com

Abstract

The present study, which is anchored in the interesting but less investigated field of virtual health promotion, examined the concept of interactivity relative to two (2) intersecting actors and their corresponding activities at health promotion in a social networking site, namely (1) promoters or *wall posts* and (2) consumers or *thread comments*. This research made use of bibliometric analysis involving validation through covert non-participative observation of five thousand and twenty-five (5,025) *thread comments* from twenty-three (23) health-related SNS pages. Researchers performed and exhibited a resilient and adaptive procedure to assess the importance of SNS interaction. Results of the analysis aspired to supplement the previous gaps in the literature by advancing three (3) themes eidetic of the thread comments and interactions between the SNS site and the virtual participants, namely: (1) concern, (2) conflict and (3) concept, which was further referred to as the Con Triad Response in Healthcare Promotion. Impliedly, the study communicates the need to understand SNS consumers' motivation for engaging in and adopting new communication technologies and the unseen potential of SNS in furthering public health awareness and related teaching.

Keywords: Facebook; health promotion; social media; social networking sites

BACKGROUND

Social networking sites (SNSs) have been defined as “Web-based sources that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system.” (Boyd and Ellison, 2007; as quoted by Pai and Arnott, *Computers in Human Behavior* 29, 2012). In recent years, researchers have been more interested on how it affects lives of the modern generation. As such, SNSs today have very significant impact on health promotion and allow millions of users fast, easy and concise access to the

most important and useful medical information (Masic et al., 2011). Thus, the use of these sites in healthcare promotion has been generally accepted. In addition to that, social networking today is what the internet was 20 years ago. In January 2011, Facebook alone had six hundred million (600 000 000) users who belong to the unique cyber culture (Masic et al., 2011). Facebook is the most commonly used SNS, used by seventy-one hundredths (71%) of all health promotion activities (Gold, 2011). According to a journal, “Adoption and Use of Social Media among Public Health Departments,” the majority of Facebook posts, eighty-eight and three hundredths (88.3%), were health-related. Of the health-related posts,

seventy-seven and eight hundredths (77.8%), were factual health-related information, six and eight hundredths (6.8%), were about services offered, and fifteen and seven hundredths (15.7%) were event announcements (Thakeray, 2012).

However, this concept is challenged by data showing conflicting ideas between health promotion and health literacy. A recent national survey by the Pew Research Center indicates that more than half of U.S. adults (57%) seek health information on the internet updates about health issues (Fox and Jones, 2009; as cited by Park et al., 2011). Although the emergence of new media has made information seeking and sharing more convenient and satisfying (Fox and Jones, 2009; as cited in Park et al., 2011), low health literacy remains a major problem in the United States (Beckman et al., 2011). A considerable amount of research has been done about *communication* but a little in *interaction*, even though the presence of these SNSs has produced a drastic shift of way in communications, enabling users to interact, observe and exchange knowledge through heaps of accessible frail ties. In spite of the early notifications, the role of SNSs has remained unclear. Hence, additional researches about its function in terms of healthcare promotion are needed.

This present study aims to fill-in the gaps of researches about SNSs interactivity. Through this, by assessing the common health issues presented and how people respond to it: positive, negative or neutral, there would be a clearer perception about the vitality of interaction between promoters (wall posts) and consumers (thread comments).

Interactivity refers to the “the condition of communication in which simultaneous and continuous exchanges occur, and these exchanges carry a social, binding force” (Rafaeli and Sudweeks, 1997). Interactivity enables social networking sites to facilitate consumers’ understanding of health information (Nutbeam, 2000; as cited by Park, 2011 in

Journal of Interactive Advertising), increases word of mouth among interpersonal networks (Kalichman et al., 2002; as cited by Park et al., 2011), and improves consumers’ self-management behaviors (Guendelman et al., 2002; as cited by Park et al., 2011).

In this paper, researchers introduced a novel method to show the role of SNSs, Facebook, as the medium. Since Facebook is the most popular SNS in the world and covers a general assortment of topics, it will be used as the platform for empirical validation of the proposal relationships in the communication processing (Alexa, 2011; as quoted by Gold et al., 2011). Also, Facebook is the most frequently used SNS, with over nine hundred and one million (901 000 000) monthly users, five hundred and twenty-six million (526 000 000) daily active users and more than one hundred and twenty-five billion (125 000 000 000) friend connection (Facebook Statistics, 2012). This paper is structured as follows: introduction, methodology, results and discussion. The said structure has been proven successful as it facilitates literal review, allowing readers to explore details more quickly to locate material relevant to its purpose. Nevertheless, this will not answer the relationship of health promotion and health literacy but researchers have developed a procedure to assess the importance of interaction between promoters and consumers and render other healthcare promoters effective ideas on maintaining social interactivity presence online.

2.0 Review of Related Literature

2.1 Theoretical Framework

Community of Inquiry Model

The Community of Inquiry Model suggests that learning experience happens through the interaction of three main elements: cognitive, teaching, and social

presence.

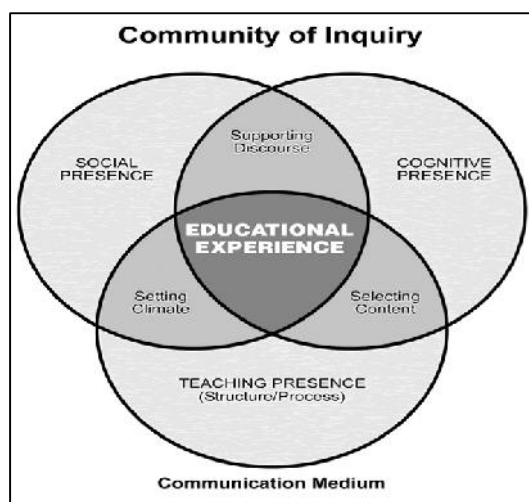


Figure 1 Garrison et al., 2001

Cognitive presence is an essential element of critical thinking and is the extent to which participants, through sustained communication in online discussion forums, are able to construct meaning. Teaching presence deals with the design and organization of the educational experience as well as facilitation or moderating in online discussions and any student-teacher interactions (Saude et al., 2012). Social presence is the ability of the participants to project themselves socially and emotionally, as real people (Garrison et al., 2001 as cited by Saude (2012) in Learning through the Lounge: Using Social Presence to assess the learning environment in a MyLinE online forum). This deals with the promotion of a sense of community through the development of relationships in order to facilitate critical thinking and knowledge creation (Saude et al., 2012).

Since this study primarily focuses on social presence and interactivity online, researchers, aided with the social presence theory, decided to scrutinize only the third element of the model. The social presence theory, developed by Short, William, and Christie, is understood as "the degree of salience of the other person in the interaction and the consequent salience of

the interpersonal relationships" (Short, et al., 1976 as quoted by Saude (2012) in Learning through the Lounge: Using Social Presence to assess the learning environment in a MyLinE online forum).

This theory suggests the notion that one's degree of social presence (represented along a continuum) is directly related to one's ability to be aware of another person in a communication interaction (Schrum et al., 2011). Communication is to be considered effective when the medium used meets the intended of social presence for the level of interpersonal involvement.

With the emergence of online environment, the amount of literature dedicated to theory of social presence is an indication of how important and popular it is as a concept to describe and understand social interaction online (Lowenthal, 2009 as cited by Saude (2012) in Learning through the Lounge: Using Social Presence to assess the learning environment in a MyLinE online forum).

Findings indicate a close relationship between social presence and interpersonal interaction. Opportunities for such interaction are not difficult to create, but they should be carefully organized to maximize the benefits of such activity, including the cultivation of social presence and the resulting relations between participants (Kehrwald, 2008). These opportunities for interaction should be structured through design and facilitation in order to (a) promote productive interactions; (b) prevent learners from being overwhelmed by the demands of interaction within large groups; and (c) balance the needs for both flexibility and structure (Coomey & Stephenson, 2001 as quoted by Benjamin Kehrwald in Understanding social presence in text-based online learning environments). Social presence cannot be established, indeed cannot exist, without interpersonal interaction (Kehrwald, 2008), thus emphasizing the need to know what is interaction, or interactivity. Interactivity

refers to "the condition of communication in which simultaneous and continuous exchanges occur, and these exchanges carry a social, binding force" (Rafaeli and Sudweeks, 1997 as cited by Hyojung Park, Shelly Rodgers, and Jon Stemmele (2011) in Health Organizations' Use of Facebook For Health Advertising And Promotion Journal). In this study, interactivity can be simply defined as a two-way (reciprocal) communication between the promoters (wall posts) and consumers (thread comments); and social presence can be established by the way health information, in the form of wall posts, are posted and how those wall posts are interpreted by consumers.

2.2 Literature Review

In this section, researchers reviewed the literature related to concepts of social networking sites (SNSs), its relation to health communication and promotion, and how the latter was influenced by interactivity online.

2.2.1. Social Networking Sites

Social media and social networking sites (SNSs) can create confusion when used interchangeably. For the purpose of better understanding, it is important to provide differentiation between the two terms.

Social media is "a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of User Generated Content" (Kaplan and Haenlein, 2010; as cited by Hyojung Park, Shelly Rodgers, and Jon Stemmele (2011) in Health Organizations' Use of Facebook For Health Advertising And Promotion Journal). It can also be technically described as "electronic tools that enhance communication, support collaboration, and allow users across the globe to generate and share content" (Thielst, 2010; as

mentioned by Sarringhaus in *The Great Divide: Social Media's Role in Bridging Healthcare's Generational Shift*, 2011).

On the other hand, as mentioned by Pai and Arnott in the journal, "Computers in Human Behavior", *social networking sites* in particular refer to "web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system" (Boyd and Ellison, 2007 as mentioned by Debra S Osborn and Barbara M LoFrisco (2012) in *How Do Career Centers Use Social Networking Sites?*)

SNSs are unique in that they enable users to easily filter through information in search of the most relevant and useful source for their purposes. SNSs provide a unique context for information gathering, as they afford users the ability to screen and judge the characteristics of the information source based on their profile information and other characteristics (Obal et al., 2011). Moreover, SNSs play an important role in communication and information consumption behavior, especially for the younger generation (Sago, 2010; as cited by Obal et al., 2011). As such, a multi-country study conducted in 2008 found that two thirds (2/3) of those who use the Internet access SNSs (Gold et al., 2011). SNSs as virtual communities in which an individual can identify and communicate with 'friends' or informed others are becoming a common means for health communication (Boyd & Ellison, 2007; as cited by Liang and Scammon (2011) in *E-Word-of-Mouth on Health Social Networking Sites: An Opportunity for Tailored Health Communication.*) Although SNSs are initially considered as a tool for socialization and recreation, Keckly and Hoffman (2010) said that social networks are playing an increasingly prominent role in healthcare.

Indeed, social networks are a trend that could change the face of health care information sharing, providing new power for providers and patients alike. Because both consumers and clinicians are using social networks, health care organizations have an opportunity to leverage their influence across multiple audiences (Keckly and Hoffman, 2010).

2.2.2 Health Communication and Health Promotion via SNS

Health communication is a key factor in the promotion of health, prevention of disease, and dissemination of health information. According to Hawn (2009), communication will also help those who wish to innovate in health care spread their ideas more widely and effectively. Nearly half of Internet users who have searched for online health information reported that they have participated in health-related communication (reading or posting messages) on SNSs (Fox and Jones, 2009; as cited by Liang and Scammon (2011) in the *E-Word-of-Mouth on Health Social Networking Sites: An Opportunity for Tailored Health Communication* journal.)

Seeking health information on the World Wide Web is the third most common use of the Internet, with sixty-one hundredths (61%) of all American adults searching online for healthcare information. Reasons cited for the use of the Internet for this purpose include: the convenience of access, concerns about confidentiality from face-to-face interactions, and the ability of those in isolated and remote areas to access information more easily (Ahmed et al., 2010). At the heart of healthcare is communication between clinicians and patients, something most of the U.S. care is still conducting with the technologies of the twentieth century at best (Hawn, 2009).

The use of social media channels creates an opportunity to facilitate the flow of health information by virtue of a

dynamic and evolving ecology of networks across different social media platforms Thackeray & Neiger, 2009 as cited by Hyojung Park, Shelly Rodgers, and Jon Stemmele (2011) in *Health Organizations' Use of Facebook For Health Advertising And Promotion* journal. While in public health, social media can be used to inform, educate, and empower people about health issues, to enhance the speed at which communication is sent and received during public health emergencies or outbreaks, to mobilize community partnerships and action, to facilitate behavior change, to collect surveillance data, and to understand public perceptions of issues. If utilized effectively, social media has the potential to improve the way public health agencies engage, interact and communicate with its various audiences (Thackeray et al., 2012; as cited in *Journal of Interactive Advertising* by Park et al., 2011).

2.2.3 Interactivity Online

Interactivity refers to "the condition of communication in which simultaneous and continuous exchanges occur, and these exchanges carry a social, binding force" (Rafaeli & Sudweeks, 1997; as quoted by Hyojung Park, Shelly Rodgers, and Jon Stemmele (2011) in *Health Organizations' Use of Facebook For Health Advertising And Promotion* journal). Interactivity enables SNSs to facilitate consumers' understanding of health information (Nutbeam, 2000; as mentioned by Park, 2011 in *Journal of Interactive Advertising*), increases word of mouth among interpersonal networks (Kalichman et al., 2002; as cited by Park et al., 2011), and improves consumers' self-management behaviors (Guendelman et al., 2002; as cited by Park et al., 2011). Using SNSs in the health sector enables increase in communication, where patients exchange information about similar problems, and professionals can share experiences on care or treatment. As a result, make better health decisions

(Masic, 2011).

Although many studies attempt to understand interactivity as a key concept in Internet advertising (Downes and McMillan, 2000; as cited in Journal of Interactive Advertising by Park et al., 2011), interactivity in the context of social media sites have received scant attention (Park et al., 2011). With the increasing popularity of social networking sites, particularly Facebook, researchers become more interested in exploring its intended functions as related to its possible contributions in the health sector. As interest and participation in SNSs develop and grow rapidly, we argue that SNSs can provide and offer a novel ground where health promotion is delivered to and accessed by users (consumers) in a fast, easy and concise way. While consumers' perceptions of the interactivity of SNSs are a key concern for online health organizations (Park et al., 2011), there is a need for a better understanding of how consumers digest online content (Eysenbach and Kohler, 2002; as referred by Chou et al., 2013).

However, to know the effectiveness of SNSs in the field of health, it is a standard to have an overview of how the participants of this study were carefully selected and how they utilize SNSs as resource materials. In order to evaluate the extent of health promotion in the online community, it is important to examine how consumers and promoters communicate with one another. To fully grasp the concept of interactivity, it is necessary to delve how consumers respond and how they are affected by promoters through their wall posts.

3.0 Research Method

3.1 Research Design

Researchers conduct the study with the use of quantitative method in order to analyze the numerical data gathered through bibliometric analysis. This method is utilized to determine the importance of

interactivity between promoters (wall posts) and consumers (thread comments) from a social networking site in relation to the promotion of healthcare.

3.2 Research Locale

The present study is conducted through the assistance of the internet. Within international context, it has a claim of a wide-range milieu, wherein respondents are socially and physically distant with one another via a social networking site, specifically Facebook. Hence, this medium can provide inter-cultural and inter-racial results with English language as its basis of wordings and verbalizations.

3.3 Population and Sampling

The type of sampling used in this study is non-probability. In this case, purposive sampling was utilized with a set of criteria prepared to come up with a qualified number of respondents. This has been the basis in choosing which "like pages" and "thread comments" are included. Qualified "like pages" had received "to-inform consents" from researchers. Twenty-three (23) from them agreed and participated in the said study whereas a total number of five thousand and twenty-five (5025) "thread comments" had undergone with a covert and non-participative observation.

3.4 Research Ethics

There are three ethical principles considered by researchers pertaining to this present study. They are as follows: (a) right to self-determination in relation to sending of "to-inform consent" to every "like page" qualified, (b) right to full disclosure in relation to sharing of actual information to "like pages" for them to have adequate knowledge about the nature of the study, and (c) privilege of veracity in relation to telling the truth in accordance to the purpose and intent of the study.

3.5 Research Instruments

This research has been made possible with the help of a sheer covert and non-participative observation to analyze results which ended up to a bibliometric analysis of primary data gathered from a social networking site. Through the use of Facebook's "search engine", researchers were able to filter "like pages" with the keyword – HEALTH. A total of one hundred and fifteen (115) "like pages" had been collected but only twenty-four (24) had qualified and received a "to-inform consent" either through "Facebook message", if available or if not, through "wall post" from researchers. However, only twenty-three (23) from them had agreed and participated in the said study.

3.6 Data Collection

To come up with unspecified but qualified (even or odd) maximum number of responses to be assessed, it is important to collect and choose the conclusive healthcare promoters attaining the presented criteria that were purposively made and prepared by researchers themselves. The promoters were best represented by "like pages" especially their "wall posts" to guarantee substantiality of results. On the other hand, under each health-related "wall posts" were "thread comments" that represented the consumers as they significantly patronize information given by promoters.

Facebook, as the medium and reference, was the wide-range milieu of this research. With the assistance of the "search engine", it was possible for researchers to gather all the health-related "like pages" in an instant accordingly through the use of the keyword – HEALTH. To intensify effectiveness in filtering of related "like pages", initial criteria created by the researches were used as follows: (1) healthcare information, (2) English-based promotions, (3) "likes" of more than 10 000, and (4) existence for two (2) years or

more. The moment researchers had already chosen the unspecified but qualified (even or odd) maximum number of like pages, they sent a "to-inform consent" to certain administrators of the said "like pages" through "Facebook message" to have a consent for the occurring study. The "like pages" that were informed and agreed were considered as subjects for the research and preceded to the next phases of the process. Every "wall" of the "like pages" was browsed to gather "posts" related to healthcare promotion. A 3-month-range (April, May, and June 2013) was implemented to solidify results in accordance to time-bounded context. Non-related "posts" in that certain period was excluded whilst related "posts" was categorized into health related topics in terms of commonality and frequency of postings and was led to partition of which majorities and minorities were. Under every "wall post" related to a specific health related topic were "threads". "Comments" in these "threads" were subjected for screening in terms of relativity, sensibility and period accountability. "Comments" that are not relative to healthcare, sensible to the topic, and accountable for the 3-month-range was excluded, whilst the qualifying ones were assessed for the interpretation of responses as to if they were positive, negative or neutral. Researchers considered the "comment" as (1) positive if it (a) sought help and (b) used affirmative words and sentences like "Yes.", "I agree.", etc.; (2) negative if it (a) presented ideas contradicting to the topic and (b) used negations and curses like "No.", "I don't care.", etc.; and (3) neutral if it (a) showed no affirmation or negation and (b) displayed both affirmations and negations. After classifying which were the existing topics and assessing the interpretation of the responses, the last phases of the process were to analyze data gathered and conclude for the results.

3.7 Data Analysis

The result will be represented by the frequency and percentage of interactivity happening between promoters and consumers through the help of “wall posts” and “thread comments”. This will be significant in knowing how people respond to rationally assessed common health issues presented in relation to (a) health-related topics, (b) responses, and (c) health-related topics versus responses. In effect, researchers were able to determine the presence and the essence of the interactivity exhibited by both parties.

4.0 Results

4.1 Health-Related Topics

Researchers have provided a list comprising of health-related topics that they have observed from all the “like pages”. They are arranged according to their commonality and frequency status (see Table 1). Among these health-related topics, four (4) are included in the majorities, and six (6) are in the minorities. The former are with more than ten hundredths (10%) of the total percentage which are: (a) nutrition, (b) diet, (c) medication and (d) fitness; whilst the latter are with less than ten hundredths (10%) of the total percentage which are: (a) sleep, (b) reproductive health, (c) stress, (d) sexual health, (e) diseases and (f) exercise.

Table 1

Health-Related Topics

Health-Related Topics	Number of Comments	%	Rank
Nutrition	2046	40.72	1
Diet	636	12.66	2
Medication	619	12.32	3

Health-Related Topics	Number of Comments	%	Rank
Fitness	612	12.18	4
Exercise	476	9.47	5
Diseases	228	4.54	6
Sexual Health	198	3.94	7
Stress	99	1.97	8
Reproductive Health	74	1.47	9
Sleep	37	0.74	10
Total	5025	100.00	

4.2 Responses

A total of five thousand and twenty-five (5025) “thread comments” were gathered by researchers all in all (see Table 2). Positive comments are mostly observed whilst Negative and Neutral comments are reckoned to be not setting far apart from one another.

Table 2

Responses

	Number of Comments	%
Positive	3624	72.12
Negative	608	12.10
Neutral	793	15.78
Total	5025	100.00

4.3 Health-Related Topics versus Responses

A varied stance of responses has been observed by researchers in relation to health-related topics. Interactivity seems to be present since Positive comments are mostly apparent in all health-related topics. Promoters have been effective in their posts as shown with low percentages of Negative and Neutral comments whilst consumers have been optimistic about their views as evidenced by a high

percentage of Positive comments. Although in Table 3, in some sort of view, from all the health related topics of all the responses, the highest Positive comment is Medication, whereas the lowest is Sexual Health; the highest Negative comment is Reproductive Health, whereas the lowest is Medication; and the highest Neutral comment is Sexual Health, whereas the lowest is Sleep.

4.3.1 Nutrition

Nutrition pertains to wall posts concerning with benefits of food and its nutritional content. Promoters tend to showcase this idea with new-to-eyes foods, colorful pictures and simple explanations of its nutritional value.

4.3.2 Diet

Diet is shown through different recipes in relation to right combination of food as to if they are for breakfast, lunch or dinner. Promoters use techniques such as food photography, easy-to-follow procedures and affordability of the ingredients needed.

4.3.3 Medication

Medication is concerned about herbal and home remedies. Promoters make sure that the plants or ingredients needed are common, affordable and convenient for the consumers. They also take into consideration citation of credible sources, where in fact, written are the important information about the use of the drug especially its benefits, side effects and contraindications.

4.3.4 Fitness

Fitness demonstrates how to improve immune system especially proper hygiene. Promoters dwell on simple precautions like tooth brushing, hand washing, and bathing with innovative procedures yet entertaining and easy to follow.

4.3.5 Exercise

Exercise pertains to simple to complex aerobics, jogging and some gym mechanics. Promoters give some advices and tips through varied innovative and efficient ways such as putting up a video demonstration, step-by-step picture sequence and even a descriptive outline of an effective routine.

4.3.6 Diseases

Diseases discuss a variety of common problems about health like diabetes mellitus, stroke, pneumonia and et cetera. Promoters try to explain to consumers some ways on how to prevent it and also some first aid treatments. However, due to language barriers about medical terms and concepts, some lay persons are having a hard time to relate with it.

4.3.7 Sexual Health

Sexual health demonstrates awareness mostly about contraception, safe sexual intercourse and sexually transmitted infections. Promoters use articles and images to share knowledge to people. However, some topics are sensitive and complicated that sometimes people do not find it interesting anymore.

4.3.8 Stress

Stress is concerned about its four subtypes: physical, social, mental and emotional stress. Promoters give advices and tips on how to cope up with it. However, it seems that people are not interested to it.

4.3.9 Reproductive Health

Reproductive health shows concepts about healthy pregnancy, functions of the reproductive system and maternal-child care. Promoters offer advices in relation to conception up to rearing a newborn. However, people may read the article and text, but perhaps in terms of confidentially wise, they prefer a

personal visit to a professional healthcare provider.

4.3.10 Sleep

Sleep is about having a good sleep. Promoters are consistent in providing help to people who need it. However, they lack of innovativeness since sleeping problems vary from person to person and a lot of factors are believed to be considered.

Table 3

Health-Related Topics versus Responses

Nutrition	Number of Comments	%
Positive	1447	70.72
Negative	233	11.39
Neutral	366	17.89
Total	2046	100.00
Diet		
Positive	477	75.00
Negative	69	10.85
Neutral	90	14.15
Total	636	100.00
Medication		
Positive	481	77.71
Negative	48	7.75
Neutral	90	14.54
Total	619	100.00
Fitness		%
Positive	433	70.75
Negative	96	15.69
Neutral	83	13.56
Total	612	100.00
Exercise		
Positive	364	76.47

Nutrition	Number of Comments	%
Negative	49	10.29
Neutral	63	13.24
Total	476	100.00
Diseases		
Positive	173	75.88
Negative	32	14.04
Neutral	23	10.09
Total	228	100.00
Sexual Health		
Positive	114	57.58
Negative	33	16.67
Neutral	51	25.76
Total	198	100.00
Stress		
Positive	65	65.66
Negative	16	16.16
Neutral	18	18.18
Total	99	100.00
Reproductive Health		
Positive	43	58.11
Negative	22	29.73
Neutral	9	12.16
Total	74	100.00
Sleep		
Positive	27	72.97
Negative	10	27.03
Neutral	0	0.00
Total	37	100.00

4.4 Summary of Variables' Frequency and Occurrence

Through the use of interconnecting variables from a social networking site – promoters (wall posts) and consumers (thread comments), researchers were able to gather relative data (see Table 4) to signify the results of this study. Shown below were the ten (10) health-related

topics and the three (3) responses. They were arranged from greatest to least when it comes to frequency and occurrence.

Table 4

Summary of Variables' Frequency and Occurrence
Health-Related Topics

	Nutrit ion	Di et	Medica tion	Fitn ess	Exer cise	Disea ses	Sex ual Hea lth	Str ess	Reprodu ctive Health	Sle ep	TOT AL
Positi ve	1447	47 7	481	433	364	173	114	65	43	27	3624
Nega tive	233	69	48	96	49	32	33	16	22	10	608
Neutr al	366	90	90	83	63	23	51	18	9	0	793
TOT AL	2046	63 6	619	612	476	228	198	99	74	37	5025

Note. These data are gathered through a covert and non-participative observation from twenty-three (23) “like pages” that qualified and agreed to participate in the study.

5.0 Discussion

Researchers consider “wall posts” as promoters since Pempek, Yermolayeva, and Calvert (2008) suggest that social networking sites are designed to foster social interaction in a virtual environment. With that at hand, uses, consequences, and values may aid promoter’s provision of safer, friendlier, and thus more attractive environments for SNSs users (Pai and Arnott, 2012). Hence, this study provides a set of bi-polar ideals of promotion that constructs similarities and contrasts between majorities and minorities of existing health related topics. Through careful analyses of researchers, they have observed that “majorities” are equipped with three (3) special characteristics, namely: (a) innovative, (b) simple, and (c) attractive. These “wall posts” are supported mainly of (a) new ideas and concepts, (b) easy-to-understand

explanations and guidelines, and (c) colorful images and graphics. On the contrary, “minorities” are linked with poor quality standards such as: (a) primitive, (b) complicated, and (c) unappealing. These have been associated with (a) preservation of transitional developments of ideas and concepts, (b) complex interconnected parts of explanations, and (c) non-inviting images and graphics or with only pure words and texts. Akin to the frequency and percentage of all the health-related topics, Nutrition had the highest number of responses which constituted of two thousand and forty-six (2046) thread comments or forty and seventy-two hundredths (40.72%) of all summed-up data gathered. At the same time, nutrition and health claims are strong marketing incentives for the food industry (Bech-Larsen and Scholderer, 2007; Cheftel, 2005), providing opportunities for product differentiation based on a health-related

positioning. On the other note, Sleep had the lowest number of responses which constituted of only thirty-seven (37) thread comments or seventy-four hundredths (0.74%) of all summed-up data gathered. Since according to Shirazi et al. (2013), given the current broadcast nature of existing social networks, users were only concerned with sharing their sleep patterns indiscriminately.

Logging onto SNS to start their day has become a daily routine for many people (Stone, 2009). Understanding this perception generates involving user interactions as well as the rapid uptake and growth for advertising based revenue models (Pai and Arnott, 2012). This has been the basis of researchers to consider “thread comments” as consumers, whilst Reynold and Olson (2001) argue that consumer’s perceptions (knowledge) of product attributes hold different levels of abstraction (i.e., uses, consequences, and values), and these are related hierarchically. These online contexts are similar in nature to SNSs in terms of satisfying user’s social, functional and hedonic needs. When someone posts something on Facebook, expect three (3) types of comments. That is, when consumers relate themselves to promoters, the results are threefold: (a) a Positive comment, when a consumer has a concern to express something about the post, (b) a Negative comment, when a consumer has a conflict to resolve something about the post, and (c) a Neutral comment, when a consumer has a concept to share something about the post. This has been known as the “con-triad response”. Based on the Oxford Dictionary, published by the Oxford University Press, “con-” is a Latin prefix which means “expressing intensive force together”: in addition, (a) “concern” is defined as a matter of interest or importance to someone; (b) “conflict” is defined as a serious disagreement or argument; and (c) “concept” is defined as an abstract idea or a general notion. Taken as a whole, the social networking site,

Facebook, is a highly recommended medium for health teaching because of an apparent existence of Positive comments although Negative and Neutral comments are unavoidable since they are part of the interaction. Thus, many consumers are concerned; that nevertheless SNSs are a novel avenue for health promotion, with the potential to reach and engage a large number of people (Nguyen et al., 2013), that indeed has influenced the social interaction among them (Pfeil et al, 2008).

Moreover, in the course of analyzing the views of consumers, researchers have observed harmonious interaction, in an affirmative form, that has happened with responses concerning Medication having the highest Positive comments of seventy-seven and seventy-one hundredths (77.71%) and the lowest Negative comments of seven and seventy-five hundredths (7.75%) in the total number of responses gathered. Likewise to Sexual Health, but in a dissenting form, researchers have observed harmonious interaction that has happened with responses having the lowest Positive comments of fifty-seven and fifty-eight hundredths (57.58%) and highest Neutral comments of twenty-five and seventy-six hundredths (25.76%) in the total number of responses gathered. Therefore, it is imperative for promoters to consider interest of consumers to Medication like herbal medicines and home remedies, whereas in Sexual Health to be improved in terms of lessening the degree of sensitivity and sensuality in terms of graphical and textual usage in accordance to the promotion of healthcare.

SNSs permit simultaneous access to multiple communication tools (Dwyer, Hiltz, and Passerini, 2007). Although according to Pempek et al. (2008), consumers spent more time observing content on Facebook than actually posting content. Such consumer-oriented thinking indicates that the utility of an SNS is not so much in its features but rather in the functional and psychological consequences

it delivers, which are important for identifying consumer's goals and values (Pai and Arnott, 2012). Yet, there is an interactivity present between promoters and consumers as long as both parties relate to one another, whether responses are positive, negative, or neutral. Hence, it is good to know what topics consumers are most interested at. In fact, Elison et al., (2007) found a strong positive relationship between Facebook use and social capital, or the resources gained through social interactions.

6.0 Conclusion

This probing study deepens understanding of SNS consumer's behavior, which can benefit both researchers and promoters. Theoretically, this study contributes to research by improving interactivity of two essential variables – promoters and consumers – that are both related to promotion of healthcare. Practically, the results should help SNS promoters design platforms that more closely fit their consumers' needs. Thus, the creation of a hedonic environment would facilitate reciprocal relationships among consumers.

According to Pempek et al. (2008), like traditional media such as television and film viewing, Facebook consists of a one-to-many communication style, where information presented reaches many "viewers" at a time. However, with SNSs, users are now the creators of content, and they view one another's profiles and information rather than viewing mass-produced content made by large corporations. This unique communication style blends the interactive qualities of newer media with the observational ones of the past. Thus, social networking sites like Facebook allow a coming together of observational and interactive media, which may become even more pronounced. Although interactivity is touted as a hallmark of newer media, online users spend a considerable amount of time just watching others. Our findings highlight the

powerful interest we have in observing others (Bandura, 1997). Yet, Pai and Arnott (2012) suggest that promoters should not view the functions of SNSs only through their eyes; they should not ignore consumers' perceptions of their values. Therefore, it is imperative for promoters to understand SNS consumer's motivation for engaging in and adopting new communication techniques. At an applied level, the popularity of social networking applications could make them a powerful cognitive tool if adapted into academic pursuits and career goals (Pempek et al., 2008).

Overall, promoters can improve quality of posts with the use of three (3) assumed characteristics, namely: (a) innovative, (b) simple, and (c) attractive in order to get more Positive comments from consumers. These functionalities are "applications of process" (Dholaka et al., 2004), especially in the world of health teaching, which help create vivid and enjoyable group interactions for SNS consumers which lead to further product or service innovation and value co-creation (Fuller, Jawecki, and Muhlbacher, 2007; Nambisan and Baron, 2009). Interactivity concerning about healthcare promotion has now an active online space wherein promoters (wall posts) and consumers (thread comments) have played an essential role. Dissemination of health education will be fast, easy and concise. Thus, it favors to healthcare professionals and prospers public health as well.

7.0 Recommendation

Although this study offers valuable insights into promoters and consumers interactivity in healthcare promotion from a social networking site, it has some limitations. First, it did not measure the relationship between health promotion and health literacy. Hence, it needs further researches. Second, it is prudent to improve the bibliometric analysis that exists in the changing environment of Facebook such as: (a) "like" to each thread

comment, (b) “reply” on each thread comment, and (c) “@mention” reply of promoters to consumers. Third, it is significant to know the basis of consumers why they “like” that certain “like page”. Fourth, it is beneficial to gather more health-related topics since researchers were only able to gather ten (10). Lastly, comparison of interactivity happening among varied social networking sites would be interesting and essential in the world of online communication.

In relation to the result of the study, researchers are humbly recommending this paper to whomever of the following: to the online community who gives importance to SNSs especially when it comes to healthcare promotion; to businessmen who use SNSs especially Facebook, to sell and endorse healthcare products; to health organizations who utilize the functions of SNSs for health teaching and awareness; to SNSs enthusiasts or to those people who have interest in online interactivity, and also to ethnologists and sociologists who are conducting studies about online community; to professors who want to share knowledge about this topic; and to sheer fellows, researchers are hoping that you will continue to provide studies akin to this topic or even improve it to enhance its specificity and comprehensiveness as this paper is bound to be done. This paper certainly needs further novel studies.

References

- Ahmed et al. (2010). iSupport: Do Social Networking Sites have a Role to Play in Concussion Awareness? *Informa UK, Ltd.*, 1877-1883.
- Bull et al. (2011). An Ethics Case Study of HIV Prevention Research on Facebook. *Journal of Pediatric Psychology*, 1082-1092.
- Chou et al. (2009). Social Media Use in the United States: Implications for Health Communication. *Health Communication and Informatics Research*, 48-58.
- Chou et al. (2013). Web 2.0 for Health Promotion: Reviewing the Current Evidence. *American Journal of Public Health*, 1-10.
- Doo Young Lee. (2013). The Role of Attachment Style in Building Social Capital from a Social Networking Site: The Interplay of Anxiety and Avoidance. *Computers in Human Behavior*, 1499-1509.
- Collin et al. (2011). ReachOut.com: The Role of an Online Service for Promoting Help-Seeking in Young People. *Advances in Mental Health*, 39-51.
- Gold et al. (2011). A Systematic Examination of the Use of Online Social Networking Sites for Sexual Health Promotion. *BioMed Central*, 2409-2458.
- Hawn et al. (2009). Take Two Aspirin and Tweet Me in the Morning: How Twitter, Facebook and Other Social Media are Reshaping Healthcare. *Health Affairs*, 361-368.
- Hazel et al. (2010). The Challenge of Social Networking in the Field of Environment and Health. *BioMed Central*, 1-11.
- Keckley et al. (2010). Social Networks in Healthcare: Communication, Collaboration and Insights. *Deloitte Center for Health Solutions*, 1-8.
- Kehrwald. (2008). Understanding Social Presence in Text-based Online Learning Environments. *Distance Education Vol. 29, No. 1*, 89-106.

- Krakower. (2012). Limited Awareness and Low Immediate Uptake of Pre-Exposure Prophylaxis among Men who have Sex with Men Using an Internet Social Networking Site? *PLoS ONE*, 1-9.
- Lau et al. (2012). Social Media in Health - What are the Safety Concerns for Health Consumers? *Health Information Management Journal*, 30-35.
- Liang et al. (2011). E-Word-of-Mouth on Health Social Networking Sites: An Opportunity for Tailored Health Communication. *Journal of Consumer Behaviour*, 322-331.
- Masic et al. (2012). Social Networks in Improvement of Health Care. *Mat Soc Med*, 48-53.
- Nguyen et al. (2013). Sexual Health Promotion on Social Networking Sites: A Process Evaluation of the Face Space Project. *Computers in Human Behavior* 25, 643-654.
- Obal et al. (2011). How can Social Networking Sites Help Us? *International Journal of Integrated Marketing Communications*, 33-47.
- Osborn and LoFrisko. (2012). How do Career Centers Use Social Networking Sites? *The Career Development Quarterly*, 263-271.
- Park et al. (2011). Health Organizations' Use of Facebook for Health Advertising and Promotion. *Journal of Interactive Advertising*, 62-77.
- PeiyuPai and David C. Arnott. (2012). User Adoption of Social Networking Sites: Eliciting Uses and Gratifications Through a Means-End Approach. *Computers in Human Behavior*, 1039-1053.
- Pempek et al. (2008). College Students' Social Networking Experiences on Facebook. *Journal of Applied Developmental Psychology*, 227-238.
- Pfeil et al. (2008). Age differences in online social networking – A study of user profiles and the social capital divide among teenagers and older users in MySpace. *Journal of Adolescent Health* 53, 98-104.
- Saude et al. (2012). Learning through the Lounge: Using Social Presence to assess the learning environment. *Procedia - Social and Behavioral Sciences*, 448-459.
- Sarringhaus. (2011). The Great Divide: Social Media's Role in Bridging Healthcare's Generational Shift. *Student Essay*, 235-244.
- Schrum et al. (2011). Project Daves: An Exploratory Study of Social Presence, E-mentoring, and Vocational Counseling Support in Community College Courses. *Internet and Higher Education*, 96-101.
- Shirazi et al. (2013). Already up? Using Mobile Phones to Track and Share Sleep Behavior. *International Journal Human-Computer Studies* 71, 878-888.
- Smith et al. (2007). Reconsidering Models of Influence: The Relationship Between Consumer Social Networks and Word-of-Mouth Effectiveness. *Journal of Advertising Research*, 387-397.
- Squazzo et al. (2010). Best Practices for Applying Social Media in Healthcare. *ACHE*, 34-39.

Thackeray et al. (2012). Adoption and Use of Social Media among Public Health Departments. *BioMed Central*, 561-583.

Verbeke et al. (2009). Consumer Appeal of Nutrition and Health Claims in Three Existing Product Concepts. *Appetite* 52, 684-692.