MPC MAJOR RESEARCH PAPER

Now accepting new patients: Health professionals' use of social media for health promotion

Philip Howard

Dr. Jeffrey Boase

The Major Research Paper is submitted in partial fulfillment of the requirements for the degree of Master of Professional Communication

Ryerson University Toronto, Ontario, Canada

July 17, 2013

AUTHOR'S DECLARATION FOR ELECTRONIC SUBMISSION OF A MAJOR RESEARCH PAPER

I hereby declare that I am the sole author of this Major Research Paper and the accompanying Research Poster. This is a true copy of the MRP and the research poster, including any required final revisions, as accepted by my examiners.

I authorize Ryerson University to lend this major research paper and/or poster to other institutions or individuals for the purpose of scholarly research.

I further authorize Ryerson University to reproduce this MRP and/or poster by photocopying or by other means, in total or in part, at the request of other institutions or individuals for the purpose of scholarly research.

I understand that my MRP and/or my MRP research poster may be made electronically available to the public.

ABSTRACT

This Major Research Paper will examine health professionals' interpretation of social media and their motivation for using it in health promotion. Four health professionals' were interviewed in order to better understand their unique perspective on the use of social media within health promotion. The analysis was grounded in the theories of technological affordances and social learning theory. It was found that while health professionals' had a variety of reasons for using social media in their professional practice, the prospect of engaging with the public regarding health topics was a main motivation for using social media. As the use of social media within the field of health promotion is an important topic and will likely continue to be in the future, it is critical to gain a more complete understanding of how health professionals' interpret social media and what motivates them to use social media to promote health.

ACKNOWLEDGEMENTS

I would like to take this opportunity to thank those who made this MRP possible. I would like to express my appreciation to Dr. Jeffrey Boase for being a fantastic supervisor. His insightful suggestions and overall support throughout the writing process made this experience more enjoyable and ultimately led to a successful MRP.

I would like to thank Dr. John Shiga for being my Second Reader for this project. His encouragement and thoughtful recommendations were very appreciated and were extremely important to my success with this project.

I also want to thank all of my fellow classmates for being great friends that provided constant support and motivation throughout the year.

TABLE OF CONTENTS

INTRODUCTION	1
THEORETICAL ORIENTATION	3
LITERATURE REVIEW	7
IMPORTANCE OF HEALTH LITERACY AND EHEALTH LITERACY	7
ETHICAL AND LEGAL CONCERNS	10
SOCIAL MEDIAS POTENTIAL FOR HEALTH PROMOTION	10
RESEARCH QUESTIONS	19
METHODS	21
QUALITATIVE INTERVIEWS	21
INTERVIEW PARTICIPANTS	22
PROCEDURE	23
RESULTS	24
HEALTH PROFESSIONALS' MOTIVATION FOR USING SOCIAL MEDIA	25
CHOICE OF SOCIAL MEDIA PLATFORM	28
HEALTH PROFESSIONALS' INTERPRETATION OF THE PUBLIC'S HEALTH LITERACY	32
DISCUSSION	34
HEALTH PROFESSIONALS' MOTIVATION FOR USING SOCIAL MEDIA	35
CHOICE OF SOCIAL MEDIA PLATFORM	38
HEALTH PROFESSIONALS' INTERPRETATION OF THE PUBLICS HEALTH LITERACY	40
CONCLUSION	41
Areas for Future Research	41
REFERENCES	43

Introduction

Health advice is increasingly being offered online as health professionals' recognize the potential of online platforms to share information quickly with diverse audiences (Korda & Itani, 2013). This increase in health information being disseminated online has led many health professionals' to incorporate social media into their overall health promotion strategy. Furthermore, the increased willingness of the public to go online for health information and the growth of social media has certainly led to an opportunity to engage the public on a variety of health topics on social media. Perhaps most significant in the partnership between social media and health promotion is social medias potential to enable the public to take greater control of their own health. This is important when considering that the World Health Organization once defined health promotion as "the process of enabling people to increase control over and to improve their health" (WHO, 1986, p.1). Moreover, one of the foundational documents in Canadian health promotion, the Epp report, argued that "health promotion means ensuring that Canadians are able to act in ways that improve their own health...we must equip and enable people to act in ways that preserve or improve their health." (Epp. 1987, p.425). Based on initial research of social media and health promotion it appears as if social media has the potential to enable individuals to take action and become informed regarding their health.

Studies on social media and health promotion have focused on a variety of factors believed to be influential in the effectiveness of social media's use in health promotion.

In particular, there has been a significant amount of discussion on the topic of health literacy, as it is believed that health literacy has a direct correlation to health outcomes for

an individual (Manafò & Wong, 2013). Furthermore, as health literacy can be understood as an individual's ability to access and understand health information (Manafò & Wong, 2013) health literacy plays a significant role in how individuals use social media to access and engage with health information. Although social media potentially offers a range of benefits to both health professionals' and the general public, there are possibly some ethical and legal concerns with the use of social media. In particular, the accuracy and specificity of information are constant concerns for health professionals' as they work to maintain professionalism while using social media (Keckley & Hoffman, 2010). Despite the ethical and legal concerns of using social media, studies tend to agree that there is a significant amount of potential for the use of social media in the field of health promotion (Korda & Itani, 2013). In particular, the potential to engage is one of the most promising benefits of using social media for health promotion activities (Eysenbach, 2008), and can possibly explain the increased use of social media among health professionals'. For the purposes of this paper, engagement is defined as the two-way communication that occurs between health professionals and the public on social media. This concept of engagement will be discussed in greater detail later in the paper. Similar to engagement, the technological affordances (benefits and constraints of a given technological platform) granted to health professionals by social media potentially explain the increased interest in using social media to promote health.

As social media platforms allow health professionals' to communicate certain kinds of information while not other types, health promotion done through social media aptly demonstrates the concept of technological affordances. Technological affordances exist regardless of whether or not the user understands these affordances or can make use

of them (Norman, 1999). The affordances granted to health professionals on social media are thus potentially a motivation for using social media to promote health, however, this is not guaranteed.

This study will explore the topic of social media and health promotion from the perspective of health professionals'. In doing so, this study hopes to uncover some of the motivations of health professionals' for using social media to promote health. Furthermore, as discussed above, the concepts of technological affordances and health literacy are important moving forward, so it is helpful to explore health professionals' interpretation of social media technologies and the extent to which they consider the publics understanding of health literacy. A better understanding of health professionals' interpretation of social media technologies is particularly important as this may help in understanding if the affordances granted by social media platforms motivate health professionals' to use social media in their practice. Also, a better understanding of the connection between affordances and motivation is important as this knowledge can be used to motivate other health professionals to use social media to promote health. Moreover, further inquiry into the extent to which health professionals' consider health literacy may provide valuable insight into their interpretation of the public. Considering that the use of social media for the purpose of health promotion is likely to continue and possibly even increase in the future, further exploration of this topic is valuable and will be important moving forward.

Theoretical Orientation

In order to frame the analysis, two theories will be used. The theory of technological affordances will be used to gain a better understanding of social media as a

Furthermore, it is important to understand if health professionals' can articulate their use of specific social media platforms and the potential technological benefits they see in the use of social media for the purpose of health promotion. In addition, social learning theory will be used to explore the motivations of health professionals' for using social media. The internal motivation of health professionals' for using social media to promote health is very important to understand as it may provide a rational for the sharp increase in the use of social media in health promotion. Furthermore, social learning theory will be critical in helping to discuss some of the perceived benefits of including social media in a health promotion strategy, from the perspective of health professionals'. Utilizing multiple theories will provide a more comprehensive strategy to frame the analysis and ensure that both the technological aspect of the paper as well as the internal motivations of health professionals' are explored. To begin, it is helpful to explore some of the core tenants of technological affordances and how it will be used in the paper.

James J Gibson originally proposed the concept of affordances in 1977 (Norman, 1999). Gibson (1977) initially defined an affordance as "a specific combination of the properties of its substance and its surfaces taken with reference to an animal" (p.67). Gibson argued that affordances are real properties that exist independently of anything else in their environment. In Norman (1999) this idea is furthered as the author identified that Gibson felt that affordances exist and they do not have to be "visible, known or desirable" (p.39). This is certainly the case when considering affordances offered by technology, known as technological affordances, as the functionality of the technology exists whether or not the user is able to utilize it as intended. Furthermore, Hutchby

(2001) identifies that affordances are functional as they enable certain activities while constraining others. This is similar to Gibson who identifies that in fact there are both positive and negative affordances. This is important when considering social media in health promotion as some platforms allow health professionals' to share certain information while not being able to share other types. Twitter, for example, allows for the rapid sharing of brief messages, however, the space on Twitter is limited and does not allow for posts with longer content. Twitter is versatile, however, as it can also be used to share links to longer articles. In this way, Twitter can be used for multiple functions. Given that each social media platform has a variety of functions, it will be important to understand if health professionals' can articulate their use of social media and thus provide a rational for the inclusion of social media in a health promotion strategy. Furthermore, understanding if the health professionals' interviewed can identify both positive and negative affordances with regards to specific social media platforms is important as it may provide some explanation for the use of certain social media platforms over others, within a given context of health promotion. In addition, the idea of perceived affordances are important to consider when discussing technological affordances (Norman, 1999). Although it is clear from the above discussion that affordances exist independently in the environment, individuals may perceive certain affordances with various technologies (Norman, 1999). For example, certain social media platforms may be selected over others due to a perceived affordance, even if the affordance does not actually exist or function in the way that it was imagined. Perceived affordances are important and it will be interesting to see if health professionals' can explain some of their perceived affordances with various social media platforms. When

considering the importance of the affordances granted by different social media platforms, the theory of technological affordances is important as it allows for a better interpretation of the interviews and more meaningful conclusions to be drawn on the uses of social media within health promotion. Next, it is helpful to examine the role that social learning theory will play in the paper.

Albert Bandura conceived of social learning theory, later renamed social cognitive theory, in 1977 (Linsley, Kane, Owen, 2011). One of the core tenants of social learning theory is that behavior change is influenced by "environmental influences, personal factors and attributes of the behavior itself" (Linsley et al, p.34). This interaction between multiple factors is important for Bandura (1977) and he states, "psychological functioning is best understood in terms of a continuous reciprocal interaction between behavior and its controlling conditions" (p.1). In Linsley et al (2011) it further identifies that in order for behavior change to occur an individual must believe that they are capable of performing the new action that is desired and they must perceive some kind of incentive for changing their behavior. In addition to these key considerations, Linsley et al identifies that the individual must value the outcome that is believed to be the result of the action that they perform. Applying a social learning perspective, it is likely that for health professionals' to be motivated to use social media they must in fact see a desired outcome, such as engagement with the audience or the ability to share health information with a mass audience quickly. Also, they must believe that they are capable of using social media to reach this desired goal. Social learning theory will be helpful in the analysis and discussion as it provides a theoretical lens, which can be used to further explain the motivations of health professionals' for using social media to promote health.

Also, it will be fascinating to use social learning theory to see what health professionals' perceive as the various outcomes of using social media to promote health and if these outcomes are a key motivating factor for using social media. In summary, both the theory of technological affordances and social learning theory will be critical in guiding the analysis and helping to address the gap in literature that currently exists on the topic of social media and health promotion.

Literature Review

The current literature that exists on social media and health promotion is increasing steadily as more and more research is recognizing the potential value of social media as a tool for health promotion. Furthermore, the ways in which social media can be applied to health promotion and the potential value of this partnership has lead to a healthy debate among researchers and health professionals'. Several prominent themes exist within the literature, these themes include: social media engagement, health literacy and eHealth literacy, ethical boundaries, and the overall potential social media holds for health promotion. To begin, it is helpful to consider the importance of health literacy and eHealth literacy and what impact it could potentially have in how health professionals use social media to promote health.

Importance of health literacy and eHealth literacy

Health literacy, known as peoples understanding of health information, is an important consideration when communicating health information on social media as it has a correlation to improved health outcomes (Manafò & Wong, 2013). When considering health professionals use of social media it would appear that factoring in the

publics health literacy may be an important aspect of effectively utilizing social media to promote health. Before continuing the discussion of health literacy, however, it is important to further define the concept. The definition for health literacy is largely agreed upon in the literature and is often defined as "the ability to access, understand, evaluate and communicate information as a way to promote, maintain and improve health in a variety of settings across the life-course" (Manafò & Wong, p.37, 2013). Similarly, Norman and Skinner (2006) identify that health literacy directly correlates to a person's ability to access, evaluate and use health information to make beneficial discussions regarding their health. In a study, Manafò and Wong (2013) explored the health literacy of mature adults and proposed a tool to help mature adults search for and access health information online. Furthermore, they conducted key informant interviews with experts in the health literacy field in order to determine their perception of the importance of health literacy in Canada (Manafò & Wong, 2013). An important finding from this study is that the key informants viewed health literacy as a "health determinant" (Manafò & Wong, 2013, p. 39). This implies that health literacy is significant to health outcomes and it would appear that an individual's health literacy has to be an important consideration made by health professionals' when communicating on social media. This study is also interesting to consider as it addresses health literacy online, known as e-health literacy. E-Health literacy can be understood as the use of new information and communication tools to provide access to health information or improve health and health care in some way (Norman & Skinner, 2006). As more health information is being distributed online, including social media sites, health and e-health literacy skills are more important than ever (Manafò & Wong, 2013; Cline & Haynes, 2001; Norman, 2012; Norman, 2011;

Kortum, Edwards, Richards-Kortum, 2008). Also, limited eHealth literacy skills are becoming a greater issue when individuals are attempting to access health information online (Manafò & Wong, 2013). This is a significant issue, especially considering that the amount of health information produced and distributed online is likely to continue at a fast pace. Health literacy and eHealth literacy are thus likely to gain further prominence (Norman, 2012). As Norman (2012) identifies "The volume of rapidly produced content through social media raises the importance of health literacy..." (p.5). Furthermore, Norman (2011) argues that e-health literacy is an essential skill that allows individuals to access and make use of health information. Moreover, Kortum et al, 2008 argues that individuals must have a solid understanding of health information in order to differentiate between sources of information online. Also, eHealth literacy is likely to continue to be integral for individuals searching for health information online, as Cline and Haynes (2001) identify, even individuals who are comfortable on the internet may not be effective in searching for and finding credible health information online. It appears that health and e-health literacy will continue to be important concepts within health promotion as they correlate to an individuals' ability to access, evaluate and make use of health information (Manafò & Wong, 2013). When considering the significance of health and e-health literacy, it will be important to gain a better understanding of health professionals' interpretation of the importance of health literacy and what considerations they make when communicating on social media to ensure health content is accessible to the public.

Ethical and legal concerns

The use of social media within health can often present a predicament for many health professionals as it blurs ethical and professional boundaries and raises concerns regarding privacy (Eysenbach, 2008; Keckley & Hoffman, 2010; Devries, 2012; Greysen, 2010; Mansfield, Morrison, Stephens, Bonning, Wang, Withers, Perry, 2011; Osmand, Wardle, Caesar, 2012). Furthermore, as this study is interested in the motivations of health professionals for using social media to promote health, it is important to consider the potential impact these ethical boundaries have on their decision to use social media. In addition to ethical boundaries, there are also legal boundaries for physicians, which prevent the diagnosis of specific medical concerns on social media (Keckley & Hoffman, 2010). In addition, Greysen et al (2010) identifies that social media challenges traditional medical professionalism in some aspects and many health professionals may not be aware of the potential impact that information shared online may have. Also, Mansfield et al, (2011) identifies that social media distorts professional boundaries between patients and health professionals. The variety of ethical and legal constraints around health professionals' use of social media are important to consider as they may represent a deterrent for some health professionals' in using social media for health promotion. Social medias potential for health promotion

Health information is increasingly being distributed online by health professionals' and organizations as they recognize the potential of sharing health information online and engaging with the public about their health online (Korda & Itani, 2013). The potential benefits of using social media to promote health may help to explain the motivations of health professionals' for using social media to promote health. Also, a

major reason for the increased focus on using social media and other online tools to share health information is that more people are going online for health information than ever before (Korda & Itani, 2013; Fox & Jones, 2009; Van De Belt, Engelen, Berben, Schoonhoven, 2010; McNab, 2009; Keckly & Hoffman, 2010; Kortum et al, 2008). This is best demonstrated by the fact that in 2000, twenty five percent of American adults went online for health information (Fox & Jones, 2009). In 2009, this number increased to eighty percent (Korda & Itani, 2013). While individuals searched for health information in general, certain health areas received more attention than others. For instance, thirtyeight percent of Americans searched for exercise and fitness information online in 2009 (Fox & Jones, 2009). Although internet searches for health information has already seen a rapid rise since the early 2000's, this trend is expected to increase in the future as the internet provides a convenient way for individuals to access a variety of health content (Van De Belt et al, 2010; McNab, 2009). The tendency for individuals to search for health information online presents a significant opportunity for the use of social media in health promotion, as the public is already comfortable utilizing online resources to answer their health related questions. Also, it is important to look at the popularity of social media in general when considering potential applications in the health field.

The popularity and widespread use of social media in general has contributed to the potential application of social media for the purposes of health promotion (Korda & Itani, 2013; O'Mara, 2012; Van De Belt et al, 2010; Keckley & Hoffman, 2010; Vance, Howe, Dellavalle, 2009). In a recent study, Korda and Itani (2013) conducted a broad environmental scan and reviewed a variety of studies on social media and health including, peer-reviewed studies, systematic reviews, meta-analyses and reports from

public health agencies. The authors found that information on social media and health came from a variety of fields including psychology, behavioral sciences, health communication and health education and promotion (Korda & Itani, 2013). The authors identify that the interdisciplinary nature of the findings reflect the varied applications of social media (Korda & Itani, 2013). In addition, the authors identified that social media is effective in facilitating a sense of connection between users, allowing for personalized messages and reaching audiences from across a variety of socio-demographic groups (Korda & Itani, 2013). The authors state that the benefits of social media listed above, are some of the main reason why it has such strong potential to be applied within the field of health promotion (Korda & Itani, 2013). Furthermore, Keckley and Hoffman (2010) argue that the increased amount of individuals attempting to use social media to obtain information regarding their health presents an opportunity for health professionals' and health organizations to engage these users and to better inform health practices in the future. Similarly to the findings from the study discussed above, Keckly and Hoffman found that social media allows individuals to form a connection with each other. The authors conclude by stating that the use of social media in health will likely continue to grow as more individuals are realizing the potential benefit of this partnership (Keckly and Hoffman, 2010). Considering that more individuals are using the internet to access and share health information and social media potentially offers a range of benefits when applied in the field of health, it is important to consider some of the specific benefits that social media offers to health professionals'.

It is believed that social media offers a range of benefits to health professionals' and thus more health professionals' are incorporating social media into their

communication with the public. Two specific benefits that are discussed in the literature is the fact that social media allows health professionals' to reach broad audiences and share information quickly (Korda & Itani, 2013; Neiger et al, 2012; Cline & Haynes, 2001; Apostolakis, Koulierakis, Berler, Chryssanthou, Varlamis, 2012; Van De Belt et al, 2010; McNab, 2009; Keckley & Hoffman, 2010; Devries, 2012). Certainly, health professionals' and organizations have realized the ability of social media to amplify health messages and reach audiences that they may not encounter face to face. This idea of reaching broad audiences would certainly appear to be beneficial in the context of health promotion and may partially explain the increased use of social media by health professionals'. In addition to reaching broader audiences, social media gives health professionals' the ability to communicate quickly to the public (Neiger et al, 2012). In Apostolakis et al (2012) the authors identify that social media is "creating new information highways for instant communication and online feedback between healthcare professionals' and patients" (p.108). The fact that social media allows for the rapid transmission of information is important and many health professionals' and organizations simply use social media platforms such as Facebook to disseminate health information to the public (Neiger et al, 2012). Another factor to consider in the rapid sharing of health information is that mobile devices that are capable of accessing social media provide another method in which individuals can get convenient and fast health information (McNab, 2009). It appears to be the combination of technological advances and the eagerness of health professionals' to share information quickly to educate or engage the public that has lead to a significant shift in the way that the public now receives health information. Other important benefits to the use of social media in health

promotion is that information can be tailored to individuals and that social media allows for interpersonal interactions between health professionals' and the public (Cline & Haynes, 2001). Certainly, the fact that information can be tailored to individuals is a positive aspect of social media. It is also important to note that the goal of many traditional health promotion campaigns is to target information at specific target audience (Korda & Itani, 2013). It appears that social media provides health professionals' with another way of directing health information at specific audiences, and perhaps a more effective way, as health professionals' can directly speak to individuals thus increasing the personalization of the message. It is apparent that social media offers a variety of benefits to health professionals' and research on the topic has even found that social media has the potential to improve health outcomes (Korda & Itani, 2013; Neiger et al, 2013). Despite the significant potential of social media in health promotion, social media in health promotion faces several challenges.

With the widespread availability of health information through social media, three central concerns arise. Most prominently is the fact that the information may not be high quality, or even accurate (Kortum et al, 2008). The quality and accuracy of medical information is of course of upmost importance as there are potentially very harmful consequences to inaccurate or poorly defined information. Also, social media has the potential to amplify the impact of a message and thus the implication of sharing information online are likely much greater than sharing information in a confidential visit between a health professional and patient (Greysen et al, 2010). A second concern with the use of social media in health promotion is the fear of information overload (Korda & Itani, 2013). The amount of health information online in staggering and the ease in which

it can be spread through social media presents a potential issue for both health professionals' and the public. Moreover, the sheer amount of information available online makes it more difficult to distinguish between what is credible information and what is not (Kortum et al, 2008). Health professionals' task is potentially made more difficult by the sizeable amount of information circulating online. Social media appears to offer a good opportunity to share health information quickly, however, health professionals' and organizations must be aware of the fact that the sheer volume of information available online presents unique challenges to them in terms of reaching their target audience effectively. A third and final concern with the use of social media for health promotion is the novelty of the medium (Korta & Itani, 2013). Although social media is certainly well established, the use of social media in health is fairly new and still emerging. It is conceivable that a new communication technology or innovation may replace social media and prove to be more interesting to the public in terms of gathering health information. Health professionals and organizations must be aware of the best way to reach their audience and while social media is quite popular today, another medium could gain prominence in the future. As discussed above, social media in general holds a significant amount of potential for health promotion, for a variety of reasons. In the literature, engagement on social media is discussed as being particularly important in health promotion and it is valuable to discuss this topic in depth.

Engagement on social media for the purposes of health promotion is potentially important and may in fact explain one of the motivations of health professionals for using social media to promote health. Before considering the potential engagement between users and health professionals on social media, however, it is helpful to further define

engagement and the potential role that it has in social media for the purposes of health promotion. For the purposes of this paper, engagement is defined as the two-way communication that occurs between health professionals and the public on social media. Engagement has been broadly defined this way so as to include both private messages between health professionals and members of the public and conversations that occur in a public forum that are directed between a health professional and members of the public. The above definition of engagement is important to consider throughout the paper, however, it is also helpful to examine how engagement is discussed in the literature.

In the literature, initial efforts to define engagement have been inconsistent and there is not a clear understanding of how engagement on social media should be used within health promotion (Neiger, Thackeray, Van Wagenen, Hanson, West, Barnes, Fagen, 2012; Neiger, Thackeray, Burton, Giraud-Carrier, Fagen, 2013). For example, Neiger et al (2012) defines engagement as "establishing a connection with others to contribute to a common good" (p.161). This initial definition is then furthered by Neiger et al (2013) as the authors argue that engagement must eventually result in program involvement and the public must be involved either though partnership or participation. Based on these definitions, it would appear that creating some sort of engagement on social media is a prerequisite to effectively using the tool and gaining the most benefit from it. Furthermore, Neiger et al argue that increased engagement can lead to "increased awareness or knowledge of health-related information, feelings of belonging and social connection, and involvement with health promotion programs" (p.158). Therefore, the engagement on social media potentially provides a range of benefits for the field of health promotion, however, it appears that some health professionals' and organizations do not

understand how to create this engagement or utilize it to maximize the effectiveness of their health promotion strategy. The definitions above also demonstrate how engagement in the context of health promotion varies and it is clear that a concrete understanding of engagement does not currently exist.

Despite this uncertainty regarding the actual definition and use of engagement, it is clear that social media does offer a potentially powerful tool to engage with users about their health (Neiger et al, 2013; Eysenbach, 2008; Angelle & Rose, 2011). In fact, Neiger et al (2013) argue, "by their very nature, social media are designed to create conversations among audiences" (p.158). Furthermore, it has been suggested that social media provides an opportunity for individuals to participate more in their health (Eysenbach, 2008). The increasing potential for using social media to engage with users about their health has even lead to some hospitals incorporating an official social media strategy into their communication plan (Angelle & Rose, 2011). For instance, the Methodist Hospital System in Houston, Texas has found that social media has provided the hospital with another avenue to communicate with the community and an opportunity for individuals to actively participate in their health (Angelle & Rose, 2011). Despite this seemingly very positive potential of social media to create engagement regarding health, initial findings on the topic have found that "early adopters of social media in health promotion and public health have underused their potential by limiting their application primarily to one-way messaging" (Neiger, et al, 2013, p.162). This represents a potential area for growth in the field of health promotion as research clearly indicates that social media has a significant amount of potential for creating engagement with the audience regarding their health. Although Neiger et al (2013) identified that there was not a

significant amount of engagement occurring on social media for the purposes of health promotion, another problem facing health professionals is how to measure the engagement that is occurring.

According to Korda and Itani (2013) measuring engagement on social media is difficult, as it is hard to determine "whether participants are 'just stopping by' a site or actually engaging with content as intended" (p.22). Also, Keckley and Hoffman (2010) identify that many organizations have not developed reliable evaluation metrics to determine the success of social media sites. The evaluation of engagement on social media is likely an area for development and will be an important consideration for health professionals moving forward if they wish to incorporate social media into their health promotion communication. Based on the research above, it is clear that social media offers a significant amount of potential to health professionals' in terms of creating engagement with the public. The topic of engagement, however, is not currently clearly understood and best practices do not exist for how to incorporate engagement into a health promotion strategy. This study will aim to provide insight into the motivations of health professionals' for using social media and what considerations they make, if any, when selecting a social media platform to disseminate information and possibly engage with the public.

The current popularity and use of social media presents an exiting opportunity for its application in the field of health promotion (Korda & Itani, 2013). Despite the potential limitations and concerns of using social media for health promotion, there appears to be a significant amount of benefit to the application of social media in health promotion and thus it is important to contribute to this significant field of study. The

current research on this topic, however, fails to explore social media and health promotion from the perspective of the health professional. In Apostolakis et al (2012) it states "empirical research concerning attitudes, intention and actual use of social media among healthcare professionals seems to be niche and innovative" (p.110). This identifies that research on the actual motivations of health professionals' for using social media in health promotion is limited. Furthermore, from the literature review above it is apparent that research in this area has focused on the potential benefits of applying social media in health and the potential motivations on health professionals' for using social media. The actual motivation of health professionals' for using social media to promote health, however, has received little scholarly attention. This study aims to address this gap in the literature and provide insight into this important field of study. Based on the current literature, it is reasonable to assume that the use of social media for the purposes of health promotion is an emerging field that will continue well into the future and thus this research is timely and will be valuable in the future.

Research Questions

The gap in the literature discussed above, will be addressed by examining social media and health promotion from the perspective of health professionals'. The focus will be on understanding the motivations of health professionals for using social media to promote health. As discussed above, this is a considerable gap in the literature as current research only discuses the potential benefit of including social media in a health promotion strategy. Furthermore, it will be interesting to see if the ethical and legal concerns discussed above effect the motivation of health professionals' for using social

media to promote health. To address this gap in the literature the following research question was developed.

R1) What are the motivations of health professionals' for using social media as a tool for health promotion?

Health professionals have a variety of choices when choosing social media platforms to promote health. Thus, it is helpful to explore the extent to which health professionals can articulate their use of social media platforms. Furthermore, as demonstrated above, the current literature on the topic is limited and fails to explore health professionals' actual use of social media platforms to promote health. Moreover, it is important to understand if the affordances granted by certain social media platforms contribute to the motivation of health professionals' for using social media. To explore health professionals' interpretation of various social media platforms and gain further insight into the effect this may have on their motivation to use social media to promote health, the following research question was developed.

R2) What do health professionals' consider when selecting a social media platform to communicate health information to the public?

Health literacy and eHealth literacy was identified in the literature as being increasingly important as more and more health information is being shared on social media. Although the health literacy of individuals was identified as being important, the

literature did not identify the extent to which health professionals' consider health literacy when communicating or any specific considerations they make when communicating health information to the public. This is beneficial to understand as it provides insight into health professionals' interpretation of the public and their level of health literacy. In order to address this gap in the literature, the following research question was developed.

R3) To what extent do health professionals' consider the publics understanding of health information when communicating on social media?

Methods

Qualitative Interviews

In order to explore this topic and address the research questions above, qualitative, semi-structured interviews were conducted. An interview guide was used as a general guide, however, other questions were developed in the interview based on the participants responses. In total, there were eleven set interview questions, which were divided into three main categories. The first category of questions explored health professionals' general interpretation of social media and potential benefits and limitations of using social media for the purposes of health promotion. In addition, this category was used to explore the motivations of health professionals' for using social media to promote health. Social learning theory was important in this category, as it was helpful to see if health professionals' perceive some sort of benefit from using social media. The second category of questions sought out to understand health professionals' rational for selecting

certain social media platforms to communicate to the public. Moreover, the theory of technological affordances was beneficial in this category as it was important to determine if health professionals' could articulate the benefits and limitations they noticed with different social media platforms and how these affordances effected their communication with the public. The final category of questions was developed to explore health professionals' interpretation of the publics' health literacy and what considerations they made, if any, when communicating with the public on social media. Also, it was interesting to explore whether or not health professionals' viewed health literacy as having an impact in the way the public communicated with them. In the end, the categories of questions that were developed allowed for a thoughtful exploration of the research questions listed above.

Interview Participants

To gain a comprehensive understanding of the topic, four health professionals' were interviewed. Furthermore, it was essential that all interview participants had used social media and were appropriate to comment on the use of social media within health promotion. The health professionals' were selected based on their social media presence which was determined from an exploratory analysis of their social media sites such as Facebook, Twitter, and YouTube. Furthermore, in order to be eligible for the study participants had to have met the following criteria, first, participants had to be recognized as a health professional by an official governing body (physician, doctorate designation in a health related field etc.) second, participants had to have an established social media presence. As social media is currently being used by a variety of health professionals' it was important to recruit participants from a variety of health professions. In total, two

physicians were interviewed in addition to an exercise physiologist and an athletic therapist. Having participants from a variety of health professions added value to the research as it allowed for a variety of unique perspectives on the topic.

Procedure

As the potential interview participants were likely very busy, an email was sent out to potential participants, which provided information about the study. The recruitment email was only sent to participants who were selected for the study due to the fact that they fulfilled the required criteria for the study, which was discussed above. In total, the recruitment period lasted approximately six weeks. If any possible participants expressed further interest in the study, an email was sent out to them providing further clarification to any questions and addressed any possible concerns the participants had.

The suggested interview locations were the interview participants' place of work, however, the participant was given the option of suggesting another public location that still granted privacy for the interview. Alternate locations included a private room at a public library or a coffee shop. During the interviews, an interview guide was used, in addition, both a digital recording device and hand written notes were used to record data from the interviews. A transcription was created after each interview to ensure that the analysis was thorough and included all components of the interview. Additionally, open coding was used to organize the data and a codebook was developed to assist in the organization of interview data. Open coding was useful as the purpose of the study was to gain a better understanding of health professionals' interpretation and motivation for using social media and thus it was important to allow themes to emerge from the data rather than having predetermined categories.

As little research has been conducted on social media and health promotion from the perspective of health professionals', interviews proved to be an appropriate and helpful way to contribute to this important field of study. Furthermore, the interview questions allowed for the direct exploration of the research questions listed above as they addressed the motivations of health professional for using social media and what considerations they made for selecting social media platforms and the publics health literacy.

Results

This study examines social media use in health promotion from the perspective of health professionals'. Three research questions were posed which explored health professionals' motivation for using social media to promote health and their interpretations of social media platforms and the audience that they communicate health information to. Analysis of the interview data revealed three notable themes. First, creating engagement online is a motivation for some health professionals when using social media to promote health. An interesting finding, however, was that although creating engagement online appears to partially explain health professionals' use of social media to promote health, there are ethical and legal concerns when communicating health information on social media that may present a deterrent for health professionals' in using social media in their professional practice. Second, it was found that health professionals' consider the technological affordances granted to them by various social media platforms, most notably Twitter, when using social media to promote health.

Finally, health professionals' recognize that the public is increasingly interested in

becoming health literate, so communicating health information in a way that is both accessible to the public while still being accurate is a key consideration when using social media to promote health. For confidentiality reasons, pseudonyms were given to each interview participant. The interview participants' will be referred to as John, Tom, Mike and Suzie.

Health Professionals' Motivation for Using Social Media

The first research question asked what motivates health professionals' to use social media for health promotion. It was found that one of the main motivators for some health professionals' in using social media to promote health is to create engagement with the public online. Furthermore, social media appears to offer a lot of benefits in the field of health promotion, specifically in terms of the engagement it can create. For example, Mike believes that "there is an inherent social interaction to it, that...allows for different points of view easier then a lot of traditional ways of expressing information." Furthermore, Mike believes that social media gives health professionals' the "ability to respond back" to individuals regarding a variety of health topics. This interaction with the public appears to be important for some of the health professionals' interviewed, for example, John stated "I want to have communication with the audience on a daily basis, that's priority number one". While this social interaction certainly appears to be important for some of the health professionals, it is important to note that Tom reported that he does not actively engage with the audience and he stated, "I put stuff out there but I don't reach out to individual users". Thus, it appears that the degree to which health professionals engage with the public, depends largely on the individual health professional and their preferred use of social media. It is also important to note that some

social media platforms were believed to be more effective in terms of creating engagement than others. For example, Twitter is generally believed to be the most effective social media platform for health promotion, and it is believed Twitter is extremely effective in terms of engagement, John felt that it "creates a conversation online". Moreover, when referring to social media platforms, John stated "previously it wouldn't have been possible, now it's definitely possible to have sort of a conversation with people". From the interviews, it appears that health professionals do indeed see social media as an effective way to create engagement regarding a variety of health topics. In addition, it was found that one of the central motivations of some health professionals for using social media is to create a conversation with the audience and generally create more engagement regarding health topics online. For instance, as John stated "I think that social media provided us with an opportunity to broadly engage with the public that wasn't available in the past, so that's one of the main reasons why I do it." In terms of specific content that is posted on social media, John said "if I read an article and I think it gives good information on how someone can sleep better, eat better...exercise better...anything in that realm of...how you can be better, I'll tweet that and post that". Thus, it appears from the interviews that some health professionals strongly feel that social media provides the field of health promotion with an opportunity to engage and converse with the audience like never before.

In addition to creating engagement, another motivation for using social media that was discovered in the interviews is the promotion of a personal brand online. As Mike stated "I would like to use it as a form, in some ways promoting a personal brand in a select sphere to hopefully get that type of engagement with people and to potentially get

more of a broader reach...and also reach out to people who aren't in the academic sphere". Although the focus of this health professional is to create more of a personal brand through social media, a motivation for building this brand is still to create a level of engagement with the broader public. In addition to discovering what motivates health professionals to use social media, an interesting finding in the interviews was that Mike felt that health professionals need to more actively use social media,

Although medicine has kind of been behind technology for awhile...it's kind of getting to the point were it's to our own detriment I would say...part of me kind of worries that if physicians are to maintain relevance they need to more actively participate where conversations are actually happening.

This reflects the current attitude of some health professionals' regarding social media.

Also, it appears that health professionals believe that social media is increasingly becoming an important tool to communicate with the public. Although health professionals' felt that the application of social media in health promotion and engagement on social media was generally very positive, it is important to note that a few of the interview participants identified ethical concerns with the use of social media in the field of health promotion.

Ethical concerns are a reality with the use of social media in the field of health promotion. For example, Tom identified that "there's been a lot of discussion on problematic interactions between physicians and patients because getting physicians to contact their patient online...is problematic for a number of reasons. There's a professional boundary that you don't want to cross". Furthermore, it was identified by Suzie that "we can't correspond with patients over email because it's not considered safe

or secure, so that has to be done on the phone so there's a lot of restrictions that are put in place...because of privacy laws". It is evident from the interviews that although social media holds a great deal of potential for providing informative and helpful health content to the public, ethical concerns are a consideration to many health professionals'. In addition, the actual engagement between the public and health professionals' appears to be a particularly troubling ethical grey area that may be of concern moving forward.

Despite the existence of ethical concerns, however, it appears that health professionals' generally see a great deal of potential in the future use of social media in health promotion. Moreover, the engagement achieved through social media was found to be a central motivation for its use by some health professionals and a particular area of interests going forward.

Choice of Social Media Platform

The second research question asked what considerations health professionals made when selecting a social media platform to promote health. In the interviews, it was found that health professionals' greatly consider the technological affordances of social media platforms when selecting one to promote health. Also, as there are a variety of social media platforms to choose from, health professionals' would appear to have an abundance of choice when selecting social media platforms to promote health. Moreover, it is clear from the interviews that health professionals' are able to describe the specific functionality of social media platforms and the affordances that each platform offers. For instance, Tom stated,

Twitter you get individual updates so if you were following a health stream you would [get] individual pieces of information, on YouTube...you sit down and

watch a video and that video would be healthcare oriented so you are focused on a single piece of information at a time, where as Facebook which is more of a platform...then any discreet piece of information.

The choice of a specific social media platform is, however, based on the individual health professional, as some prefer to integrate various platforms while others choose to utilize only one. For instance, John identified that he preferred to coordinate all of his social media and stated "I use Hoot Suite so these days whenever I post one thing I will post it on my two Twitter channels, my two Facebook channels, and my LinkedIn account broadly, sometimes I will not post a LinkedIn...but most of the time I will just funnel it out to everything". This is significant and would certainly appear to be taking advantage of social media's broad reach. During the interviews it was also discussed that while each social media platform offers various affordances, such as the length of content that can be posted or the speed of the platform, Twitter was identified as being the most popular social media platform for the purpose of health promotion. What is perhaps most interesting regarding the use of Twitter for health promotion is the way in which interview participants' articulated the technological affordances granted by Twitter. Also, the fact that they often identified the affordances as being a major reason why they prefer Twitter over other platforms. For example, John stated that he feels "Twitter...is the most powerful tool these days". This was justified by stating "I think that because it actually results in more people engaging with the information and it's fast enough that people can digest it quickly and people can follow it quickly, it seems to have the most back and forth between the people". The technological affordances granted by Twitter are also important to keep in mind in this instance and in fact the interview participant identified

that Twitter is beneficial as it allows you to see if someone is interested in the content you posted. For instance, John stated "you can tell because they re-tweet it or they email you back with something else so it actually creates a conversation online where as I don't really find that Facebook does that". This is significant as it demonstrates how health professionals' are able to articulate specific affordances of the platform, in this case, the re-tweet function, to justify the use of a specific social media platform. Moreover, the affordances of Twitter allow health professionals' to "funnel" quality information to followers. For instance, John stated "Twitter allows me very quickly to find information that I think is interesting and funnel it out to other people". Also, Tom stated, "I know that I try and make stuff fit on Twitter because that's the easiest one for me to deliver content to". This further demonstrates that health professionals' are able to articulate the affordances of specific social media platforms. It certainly appears that health professionals' view the affordances granted by Twitter as very important, and it would appear to explain why Twitter is often the preferred social media platform to communicate health information. Despite the fact that Twitter and other social media platforms offer various affordances that can be considered positive, it is important to note that there are limitations with all social media platforms as well.

As referenced earlier, Gibson (1977) identified that affordances can be both negative and positive. This was certainly expressed in the interviews, as although the health professionals interviewed generally identified Twitter as the most beneficial tool to promote health, there are limitations. For instance, John stated "the drawback to Twitter is that its very limited ... the problem is that you don't really get the chance to explain it unless you tweet a blog post". Thus, the limited space available on Twitter to share

information was clearly articulated as a limitation of the platform. What was interesting, however, was the fact that several health professionals' identified that they often used Twitter to link to a blog post. For instance, John identified that "if I write a blog post on my website then send that blog post out by twitter I will get a huge number of people that go out to read it". Moreover, Mike commented that many health professionals' who use social media well, will use Twitter to "post links back to their blog post where they can kind of put things in a lot more detail than you can in 140 characters". It appears as if health professionals identify that there is limited space on Twitter, however, they are able to use the affordances that are granted by the platform to accomplish their goal of disseminating health information to the public.

In addition to the speed and functionality of Twitter, another noteworthy affordance that was discussed in the interviews was the privacy settings of various social media platforms. For instance, Mike stated "Facebook is kind of limited because people have to kind of be associated with you before they can ever see your messages which is a bit of a deficiency where as Twitter with like re-tweeting and these types of things you can see messages from people your not following". This is an important insight when considering the reach of a health message. Also, it is significant that the health professional interviewed could articulate the privacy settings of different social media platforms.

It is clear from the interviews conducted that health professionals' greatly consider the technological affordances of social media platforms when selecting a platform or platforms to communicate health information. Moreover, it was found that Twitter is generally thought of as the most effective social media platform for

communicating health information as it allows health professionals' to quickly share information and start a conversation online with the public. Although health professionals' may consider a variety of factors when selecting a social media platform to communicate health information, it is clear that the technological affordances granted by each platform play a significant role in their decision.

Health Professionals' Interpretation of the Public's Health Literacy

The final research question explored the extent to which health professionals' consider the public's understanding of health information when communicating on social media. It was discovered that health professionals' significantly consider the public's health literacy and make efforts to communicate clearly and effectively across a variety of social media platforms. Furthermore, during the interviews it was found that health professionals' believe that the public is increasingly interested in managing their health and it is believed that there is an increased interest in becoming health literate. As stated by John "I think that there's been a big shift in probably the last five...five years ago people really have gotten health literate". This trend is certainly significant considering the increase in health information being disseminated online. Also of interest, is the fact that in one of the interviews it was also felt that the quality of health information might be worse than it has been in the past. Despite the quality of information online being questioned by health professionals', it is clear that the public's interest in becoming health literate is increasing. In fact, John stated "certainly in terms of people's engagement with the concepts of health and exercise and eating better and...exercising more and trying to live a better life through knowledge I think that's really exploded over the last...5 years". This increased interest in health literacy from the public would

certainly appear to be positive, as Mike believes that "an individual user's health literacy is probably directly correlated with the quality of the information they seek out and they receive". Furthermore, it is believed by Mike that an individual's health literacy impacts their ability to engage in a discussion surrounding their health. For instance, Mike stated "I think part of the reduced health literacy issue is that it...impedes people from asking questions back, it impairs that ability to create a dynamic give and take between the patient and the doctor". Based on the interviews, it would appear that health professionals' do in fact recognize the public's increased interest in becoming health literate and the positive results that increased health literacy can lead to. Also, from the interviews it is clear that health professionals' greatly consider the public's understanding of health information when communicating on social media. For instance, John stated "I think one of the big challenges is this whole knowledge translation idea and that is making very complicated subjects understandable for the general public and I think that's really key". Also, Mike stated, "part of the reason you need to target health literacy is to actually allow these people to be engaged in these types of discussions and to get them involved". Furthermore, from one of the interviews it is clear that translating health information for the general public was important yet difficult to do, as John stated "you walk the knife's edge between making it totally understandable and then saying things that aren't totally accurate so its very hard to navigate that line especially when your doing it in 140 characters". It appears that there are certainly challenges in communicating understandable health information to the public yet it is identified in the interviews as being critically important to the success of health promotion initiatives. One consideration that appears to be important when communicating health information to the general public is the use of plain language. For instance, Tom stated "I really do think that I do a reasonable job of translating medical terminology into normal english terms... you try and come up with analogies and ways to describe it". Furthermore, Mike confirmed the importance of plain language, "I think its the language that you use...I think its a matter of trying to put things in terms of things that they can understand more easily". This is an important insight into the ways in which health professionals take into consideration the public's level of health literacy and it once again demonstrates that it is an important consideration when communicating health information to the public. It appears from the interviews conducted that health professionals' actively consider the health literacy of the general public when communicating on social media. Furthermore, the use of plain language is one strategy utilized by health professionals for making health content accessible to the general public.

Discussion

As discussed in the literature, social media has great potential for health promotion, for a variety of reasons (Korda & Itani, 2013). In the interviews, it was discovered that many of the potential benefits of social media discussed in the literature appear to be accurate as the health professionals' interviewed supported them. Moreover, it was found that although health professionals' have a variety of choice when selecting a social media platform to promote health, the health professionals' interviewed identified that the specific technological affordances granted to them by social media platforms play a significant role in this decision. Finally, it was identified in the literature that an individual's health literacy is directly connected to improved health outcomes (Manafò &

Wong, 2013). In the interviews, it was discovered that health professionals' do in fact recognize the importance of health literacy and make efforts to communicate health information in a way that is both accessible while still being accurate. As engagement on social media appears to be both a potential benefit of using social media in health promotion and a central motivator of some health professionals' for using social media, it is important to further explore this theme. Moreover, at this point, it is important to reexamine the literature and theory discussed above and see what connections can be made between the potential use of social media and health, and the actual use as discussed by health professionals'.

Health Professionals' Motivation for Using Social Media

As discussed in the literature above, social media offers a potentially powerful tool to engage with users about their health (Eysenbach, 2008). Furthermore, it is believed that creating some sort of engagement on social media is a requirement to effectively use it for health promotion and gain the most benefit from it (Neiger et al, 2012). This belief about social media engagement and health promotion appears to be accurate as the interview participants' generally agreed that creating engagement is very important to the overall effectiveness of social media in a health promotion capacity. Moreover, it was discovered that creating engagement is one of the main motivations for some health professionals who choose to use social media for health promotion. This finding is significant as it identifies that the perceived benefits of social media's use in health promotion as discussed in the literature are similar to health professionals' perceived benefit of using social media. Also, this finding confirms that for some health professionals' interviewed, creating engagement on social media is an actual motivation

for using social media. This is important as it helps to explain the increase in social media use by health professionals', and why the connection between social media and health promotion is likely to continue in the future. Furthermore, for some of the health professionals' interviewed, creating engagement was identified as being effective in starting a conversation about public health online, thus it is reasonable to assume that creating engagement may in fact be an effective use of social media in health promotion. As discussed earlier, social learning theory is potentially helpful in explaining health professionals' use of social media and can be used to discuss some of their motivations for incorporating social media into their professional practice.

Social learning theory argues that for individuals to change their behavior they must value the outcome that is believed to be the result of the action that they perform (Linsley et al, 2011). In the context of social media and health promotion, a social learning theorist may argue that as the interview participants' generally valued engagement on social media, this was a central motivation for incorporating social media into their professional practice. Based on the interviews conducted, it would appear that social learning theory applies in this instance, as the desire to create engagement does appear to be an important influence for a change in behavior for health professionals'. In addition to creating engagement on social media, the ability to disseminate information to a broad audience was discussed in the literature and is important to address further.

In the literature it was identified that one benefit of social media in health promotion is the ability to disseminate information to a large audience quickly (Neiger et al, 2012). This potential benefit was identified in the interviews, however, it was not as prominent as the theme of engagement and thus it does not appear to be as significant a

motivator for health professionals' as engagement is. This is important to note as the literature identified that many health organizations engage only in one-way communication with the public (Apostolakis et al, 2012). The fact that the health professionals' interviewed did not identify this as important as creating engagement on social media is potentially significant and may indicate a future direction for the use of social media in health promotion. Finally, it is imperative to discuss the ethical and legal concerns associated with the use of social media in health promotion and what impact this may have on the motivation of health professional for using social media.

In the literature above, it was identified that there are a variety of ethical and legal concerns that may impact the use of social media by health professionals' (Keckley & Hoffman, 2010). This was also discussed in the interviews and some of the health professionals' interviewed identified that ethical concerns do in fact impact their decision to use social media. In this way, ethical and legal concerns can be thought of as an antimotivation for health professionals' as they discourage some health professionals' from using social media to promote health. This is also important as it may present a key barrier to the increased use of social media in health promotion in the future. From a social learning theory perspective this is interesting, as the interviews identified that some health professionals' are interested in using social media as they see a desired outcome from using it. Despite this desired outcome, however, many health professionals' may not feel like they are capable of using social media effectively to achieve this outcome, as there are ethical and legal barriers in the way. Social learning theory is thus helpful in explaining a reason why there may be limited acceptance of social media for the purposes of health promotion by health professionals'. In summary, it is apparent that creating

engagement on social media is a key motivator for health professionals' in using social media in health promotion. Furthermore, many of the potential benefits discussed in the literature on the topic appear to be accurate as the health professionals' interviewed perceived similar benefits in using social media to promote health. Moving forward, it is clear that ethical and legal concerns may continue to impact the use of social media in health promotion, however, the potential benefits to engage the audience and help facilitate a discussion of health online are important to consider as these may have a significant impact in the field of health promotion going forward.

Choice of Social Media Platform

In the literature, social media is often described as beneficial to health promotion as social media allows health professionals to interact and connect instantly with individuals for the purposes of engagement and information sharing (Apostolakis et al, 2012). These benefits can also be considered technological affordances as each social media platform has a unique combination of affordances, which allow the user to share certain types of content and engage with other users. In the interviews, Twitter was generally agreed upon as the most benefitial social media platform to promote health as it allows for the rapid sharing of information and according to one health professional, helped to generate a conversation online. In addition to benefits, however, health professionals were able to identify a major limitation to Twitter, which is the fact that it is limited in terms of the amount of content that you can post on it. This discussion of Twitter is interesting when considering the theory of technological affordances, as health professionals' were able to articulate benefits and limitations of the technological affordances of a given platform. The fact that health professionals were able to articulate

both benefits and limitations is important as Gibson (1977) identifies that affordances can in fact be both positive and negative. Moreover, as Norman (1999) identifies, affordances do not need to be known or desirable to the user, however, in the case of the health professionals' interviewed, it certainly appears that the affordances of each social media platform are known. Moreover, in addition to be known, they are presumably desirable as some of the health professionals' interviewed identified that they prefer Twitter to other platforms due to the specific combination of affordances that it offers.

Overall, the theory of technological affordances is helpful in explaining health professionals' use of social media, and specifically, what considerations they make when selecting a social media platform. As each social media platform provides certain affordances while not others, it is clear that the health professionals' interviewed seriously considered technological affordances when selecting a social media platform. This is significant as the technological affordances of Twitter for example, appears to provide some insight into what the health professionals' interviewed perceive as effective ways to communicate health information to the public. Furthermore, the same affordances can be understood as providing insight into what the health professionals' interviewed perceive as successful ways to create engagement on social media regarding health promotion. Finally, based on the fact that health professionals' were well aware of the specific affordances of each social media platform, it is reasonable to assume that the technological affordances provided by a platform, may in fact be a motivation for health professionals' to use social media to promote health.

Health Professionals' Interpretation of the Publics Health Literacy

As identified in the literature above, an individuals health literacy is believed to be very important as it directly impacts one's ability to gain access to health information and understand it (Norman and Skinner, 2006). Moreover, health literacy is believed to have a direct correlation to improved health outcomes for an individual (Manafò & Wong, 2013). In the interviews, it was found that the health professionals' interviewed agree with the literature and view health literacy as important as it impacts an individual's ability to access high quality health content and engage in discussion surrounding their health. What is significant is the fact that some of the health professionals' interviewed believed that an individual's health literacy actually impacted their ability to engage in a health discussion. This implies that some health professionals' believe that if an individual cannot access and understand health information they are less likely to be engaged in discussions and perhaps, less likely to take action regarding their health. Providing content that is both accessible to the general public while stile being accurate would thus appear to be of major importance for health professionals' when communicating on social media. In the interviews, it was found that health professionals' greatly consider the public's health literacy and in fact some health professionals' identified that the use of plain language was important as it makes the information accessible to the general public. This is significant as it identifies that not only do the health professionals' interviewed understand that health literacy is important to consider they actively communicate in a way that allows the public to understand and engage in health topics related to them.

Conclusion

Health professionals' may use social media in their professional practice for a variety of reasons, however, from the research conducted, it appears that creating engagement is the most significant motivation for health professionals to use social media. Moreover, from the interviews conducted it was determined that the health professionals' interviewed actively considered the technological affordances of various social media platforms and the health literacy of individuals when using social media to promote health. This is important as it provides insight into health professionals' interpretation of both social media as a technology to promote health and their interpretation of the public. Furthermore, the findings provide insight into some health professionals' perception of what is an effective way to communicate health information to the public using social media. This is critically important as more and more health information is available online and through social media platforms, and thus gaining a better understanding of how to communicate effectively on social media will be important in the future. In 1986, the World Health Organization defined health promotion as "the process of enabling people to increase control over, and to improve their health" (WHO, 1986, p.1), it is remarkable to consider the advances that have occurred in health promotion and technology since then, however, the core idea remains the same. Social media represents an emerging and exciting opportunity for health promotion and this research studies goal was to contribute to this important field of research.

Areas for Future Research

Research on social media and health promotion in general is an emerging field. In particular, research that focuses on this topic from the perspective of the health

professional is limited. As this study only interviewed four health professionals', it would be beneficial to gain a broader perspective and learn from even more health professionals'. In addition, in one of the interviews it was identified that "frontline healthcare workers are not necessarily promoting the use of social media to contact their patients or to let their patients know they can learn about health online because mostly we discourage from searching for stuff on the Internet". This statement represents a gap that currently exists between a large portion of the medical field and social media and thus it will be important to conduct further research to explore why this gap exists and ways in which the gap can be narrowed. Future research in this area is thus important and a better understanding of the connection between social media and health promotion is likely to have various benefits to both health professionals' and the population at large.

References

- Angelle, D., & Rose, C. L. (2011). Conversations with the community: The Methodist hospital system's experience with social media. *Frontiers of Health Services*Management, 28(2), 15-21.
- Apostolakis, I, Koulierakis, G, Berler, A, Chryssanthou, A, Varlamis, I. (2012). Use of social media by healthcare professionals in Greece: An exploratory study. *International Journal of Electronic Healthcare*, 7(2), 105-124.
- Bandura, A. (1977). Social learning theory. New York, NY: General Learning Press.
- Cline, R. J., & Haynes, K. M. (2001). Consumer health information seeking on the internet: The state of the art. *Health Education Research*, *16*(6), 671-692.
- DeVries, P. D. (2012). Electronic social media in the healthcare industry. *International Journal of Electronic Finance*, 6(1), 49-61.
- Epp, J. (1987). Achieving health for all a framework for health promotion. *Health Promotion International*, *I*(4), 419-428.
- Eysenbach, G. (2008). Medicine 2.0: Social networking, collaboration, participation, apomediation, and openness. *Journal of Medical Internet Research*, 10(3).
- Fox, S., & Jones, S. (2009). The social life of health information. Washington, DC: Pew Internet & American Life Project, 2009-2012, 1-88.
- Hutchby, I. (2001). Technologies, texts and affordances. Sociology, 35(2), 441-456.

- J Gibson in R. E. Shaw & J. Bransford (Ed.). (1977). *Perceiving, acting, and knowing*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Keckley, P. H., & Hoffmann, M. (2010). Social networks in health care: Communication, collaboration and insights. *Deloitte Center for Health Solutions*, 1-9.
- Korda, H., & Itani, Z. (2013). Harnessing social media for health promotion and behavior change. *Health Promotion Practice*, *14*(1), 15-23.
- Kortum, P., Edwards, C., & Richards-Kortum, R. (2008). The impact of inaccurate internet health information in a secondary school learning environment. *Journal of Medical Internet Research*, 10(2).
- Linsley, P in R Kane, S Owen & P Linsley (Ed.). (2011). *Nursing for public health: Promotion, principles and practice*. New York, NY: Oxford University Press.
- Manafò, E., & Wong, S. (2013). Promoting eHealth literacy in older adults: Key informant perspectives. *Canadian Journal of Dietetic Practice and Research*, 74(1), 37-41.
- Mansfield, S. J., Morrison, S. G., Stephens, H. O., Bonning, M. A., Wang, S., Withers, A. H, Perry, A. W. (2011). Social media and the medical profession. *Medical Journal of Australia*, 194(12), 642-644.
- McNab, C. (2009). What social media offers to health professionals and citizens. *Bulletin of the World Health Organization*, 87(8), 566-566.

- Neiger, B. L., Thackeray, R., Burton, S. H., Giraud-Carrier, C. G., & Fagen, M. C. (2013). Evaluating social Media's capacity to develop engaged audiences in health promotion settings use of twitter metrics as a case study. *Health Promotion Practice*, 14(2), 157-162.
- Neiger, B. L., Thackeray, R., Van Wagenen, S. A., Hanson, C. L., West, J. H., Barnes, M. D., & Fagen, M. C. (2012). Use of social media in health promotion purposes, key performance indicators, and evaluation metrics. *Health Promotion Practice*, 13(2), 159-164.
- Norman, C. D. (2011). eHealth literacy 2.0: Problems and opportunities with an evolving concept. *Journal of Medical Internet Research*, 13(4).
- Norman, C. D. (2012). Social media and health promotion. *Global Health Promotion*, 19(3), 3-6.
- Norman, C. D., & Skinner, H. A. (2006). eHealth literacy: Essential skills for consumer health in a networked world. *Journal of Medical Internet Research*, 8(2).
- Norman, D. A. (1999). Affordance, conventions, and design. *Interactions Magazine*, *6*(3), 38-43.
- O'mara, B. (2012). Social media, digital video and health promotion in a culturally and linguistically diverse Australia. *Health Promotion International*. 1-11.
- Osman, A., Wardle, A., & Caesar, R. (2012). Online professionalism and Facebook falling through the generation gap. *Medical Teacher*, *34*(8), 549-556.

- Greysen, R. Kind, T, M. & Chretien, K. C. (2010). Online professionalism and the mirror of social media. *Journal of General Internal Medicine*, 25(11), 1227-1229.
- Van De Belt, Tom H, Engelen, L. J., Berben, S. A., & Schoonhoven, L. (2010).

 Definition of health 2.0 and medicine 2.0: A systematic review. *Journal of Medical Internet Research*, 12(2).
- Vance, K., Howe, W., & Dellavalle, R. P. (2009). Social Internet sites as a source of public health information. *Dermatologic Clinics*, *27*(2), 133-136.
- World Health Organization. (1986). *The Ottawa charter for health promotion*. 1-5: http://www.who.int/healthpromotion/conferences/previous/ottawa/en/