ABSTRACT

Title of Document:	EXAMINING THE GET YOURSELF TESTED CAMPAIGN: HOW ONLINE INFORMATION SEEKING AND SEXUAL HEALTH PERCEPTIONS INFLUENCE EFFICACY AND COMMUNICATIVE ACTION
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The purpose of this study is to explore young adults' meaning construction of sexual health, sexual health campaigns, and online sexual health information through the lens of the GYT: Get Yourself Tested Campaign. A secondary purpose is to develop theory in the area of e-health. Finally, this study will offer practical recommendations to the CDC's Division of STD Prevention, one of the developers of the GYT Campaign, on how to better disseminate sexual health information to young adults via the online space.

The theoretical frameworks chosen for this study are the health belief model (HBM) and the situational theory of problem solving (STOPS). Additionally, literature pertaining to campaigns, e-health and sexual health contributed to this study. The integration of these theories within this scholarly body of knowledge demonstrated the

potential for merging communication theory and health behavior theory for future scholarship and practice.

A qualitative research methodology was used to collect and analyze data. Specifically, 50 in-depth interviews and five focus group sessions with young adults provided insight on how they made meaning of sexual health, online information seeking, and the GYT campaign. Analytical techniques from the grounded theory approach were used to analyze these data. A constructionist/interpretive research perspective was the guiding epistemology to situate this audience-centered study.

Themes emerged regarding sexual health perceptions, online information seeking, HBM/STOPS, and campaign development. Findings suggested that young adults were aware of the issue of poor sexual health, but faced a number of constraints that prevented them from reaching their optimal health potential. These were alleviated by the benefits of searching for information online.

This study contributes to the scholarly body of knowledge by integrating theories and applying it to an online context. Furthermore, this study demonstrates the utility of an integrated HBM/STOPS framework in campaign planning, which was explicated through the development of the E-Health Information Management Model (E-HIMM). The findings revealed that the integrated constructs from both theories were readily present in the knowledge, attitudes, and behavioral intentions of the participants, which could provide useful evidence for campaign developers when constructing messages for the young adults audience.

EXAMINING THE GET YOURSELF TESTED CAMPAIGN: HOW ONLINE INFORMATION SEEKING AND SEXUAL HEALTH PERCEPTIONS INFLUENCE EFFICACY AND COMMUNICATIVE ACTION

By

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Dissertation submitted to the Faculty of the Graduate School of the
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I heard this song on the radio driving to campus one day and I almost cried because I felt that it totally represented how I was feeling during the dissertation writing process. I dedicate this dissertation to my father, Roberto S. Briones, who is currently battling cancer and was going through multiple bouts of chemotherapy and radiation while I was working on this dissertation. His perseverance, strength, and courage served as my constant inspiration as I battled with the ups and downs of the dissertation process. Here is with all hope that the dog days are indeed over, and that we can celebrate the completion of my degree alongside with the end of his sickness.

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I would first and foremost like to thank my committee members for their guidance and insight to make my dissertation study a project that I was proud of. Thank you to Dr. Brooke Fisher Liu for helping me become a stronger academic, and for the advice and wisdom, not just in terms of my career, but also in terms of how to achieve an overall better work-life balance. Thank you to Dr. Elizabeth Toth who has served as a mentor and inspiration to me since I came to the program as a wide-eyed and bushy-tailed master's student in 2008 – I hope you didn't think I was silly when I asked you to sign your *Futures of Excellence* book at the end of that semester. I am thankful that I can now work alongside you as a co-author and learn from one of the best.

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A very huge and special thank you goes to my amazing advisor and mentor, Dr. Linda Aldoory, who guided me first as a master's student, and then as a Ph.D. student, creating a bond that solidified and grew over the past five years. I've learned so much from you, and appreciated sharing pitfalls and successes with you over the years, whether it pertained to academia or just life in general. You have made me the scholar and woman I am today, and for that I thank you.

I am so very grateful for the Department of Communication public relations alumni, whose guidance, advice, and assistance with the dissertation and participant recruitment have

Table of Contents

List of Tables

List of Figures

Chapter 1 – Introduction

Rosie the Riveter, McGruff the Crime Dog, The DARE program, The Heart

Truth, Yes We Can, It Gets Better, and Kony 2012. Since the 18th century,

communication campaigns such as these have been developed and implemented to

increase awareness, change attitudes and beliefs, and move individuals toward action and

behavior change. From the abolition of slavery to tobacco control, the United States has a

rich history of campaign development, which shifted mid 20th century when researchers

brought social science in for formative research and evaluation purposes (Paisley, 2001;

Rice & Atkin, 2002). Also at that time, the channels used for disseminating health

messages changed, moving from pamphlets and more interpersonal channels (Paisley,

1981) to media channels such as television, radio, and newspapers (Silk, Atkin, &

Salmon, 2011).

Over time it became clear that communication campaigns were a useful tool in

disseminating health messages (Snyder, 2007), and the mass media could be used to

communicate health to large numbers of people. In recent years, the Internet has emerged

as the channel used by individuals for actively seeking or passively receiving health

information. The fluidity of the Internet has defined it as both an impersonal or personal

channel (Galarce, Ramanadhan, & Viswanath, 2011). If a person is searching for

information on diabetes, for example, the Internet is impersonal and does not require

person-to-person interaction with others. If that same person were participating in an

eating disorders online support group, then the Internet becomes a personal channel for

seeking health information. Some of the biggest advantages of using the Internet for

disseminating health messages are its constant availability, its ability to provide useful

information, and the fact that it offers anonymity to users (Viswanath, Ramandhan, & Kontos, 2007).

Due to the anonymity it provides, the Internet offers an opportunity for online campaign developers to create messages surrounding more sensitive health topics. According to the Pew Internet and American Life Project, about one-third of health information seekers have searched for information on sensitive topics that are difficult to talk about, a jump from 16 percent in 2000 (Fox & Rainie, 2002). This number is likely to have risen in recent years with the advancement of more secure network connections made available to Internet users, and more health information options online.

One particular public that warrants attention among researchers is the young adult population. As the generation that grew up with the Internet, young adults realize its value for health information. A 2009 Pew survey found that 93 percent of young adults aged 18-29 are on the Internet, with 72 percent searching for specific health topics (Lenhart, Purcell, Smith, & Zickuhr, 2010). Out of these topics, sexual health is of prevalent interest for this population.

Young adults have the highest rates of sexually transmitted diseases (STDs) out of all age groups in this country (CDC, 2010a). More research needs to be conducted to determine the best means to developing sexual health information online, making it readily available to young adults, and making it understandable and action oriented. This study investigates young adults' meaning construction of sexual health, of sexual health campaigns, and of online sexual health information, as a benchmark for determining the most effective elements for online sexual health campaigns. The research also examines

2

one campaign in particular as an example of an online initiative for young adults, the GYT: Get Yourself Tested campaign.

The Public Health Threat: Sexual Health Risk

According to the Centers for Disease Control and Prevention (CDC) (2010a), young people aged 15 to 24 years acquire nearly half of all new STDs, in spite of representing only 25 percent of the sexually experienced population. The CDC (2010a) reports that STD infections continue to increase, with Chlamydia increasing 7.5 percent and Gonorrhea increasing 4.9 percent for young adults aged 20 to 24. In particular, young people age 15 to 24 have four times the reported Chlamydia and Gonorrhea rates of the total population (CDC, 2010a).

Those who are at higher risk for contracting STDs include young people who initiate sex early in adolescence, those residing in detention facilities, those who attend STD clinics, young men having sex with men (YMSM), and youth who use injection drugs (CDC, 2010b). This risk increases even more for young adults who have multiple sexual partners concurrently, have sexual partners sequentially for a limited duration, those who fail to use barrier protection consistently and correctly, and those with increased biologic susceptibility to infection (Forhan et al., 2009).

STDs cost the U.S. health care system $17 billion every year. Plus, STDs come with life threatening consequences for the untreated, including infertility in women; brain, cardiovascular, and organ damage; and increased risk for HIV for both men and women (CDC, 2010a).

The high proportion of young adults could be contracting STDs for several reasons, including a lack of accessing quality sexual health services, no health insurance,

no ability to pay, lack of transportation, and discomfort discussing sexual health with a parent or adult (CDC, 2010a). In particular, college-aged students and young adults who are living away from home may face these challenges to an even higher degree, because they are acting independently for the first time. In addition, they may also be concerned with issues of confidentiality and the ability to discuss personal matters in a private setting with a school counselor or school health services. A study conducted by the CDC (2000) found that only 42.8 percent of females and 26.4 percent of males had discussed STD or pregnancy prevention with their health care provider. However, many providers frequently fail to ask young adults about sexual behaviors.

Routine laboratory screening is strongly recommended for sexually active young adults to help prevent the spread of STDs. For Chlamydia, routine screening is recommended annually for all sexually active females aged 25 and younger. However, for young males there is insufficient evidence to recommend routine screening. Routine screening for Gonorrhea is recommended for sexually active women under the age of 25 annually, as they are at highest risk for this disease. For HIV, screening is promoted to all young adults who are sexually active (CDC, 2010b).

Purpose of Study

The purpose of this study is to explore young adults' meaning construction of sexual health, sexual health campaigns, and online sexual health information, and to examine one example, the GYT: Get Yourself Tested Campaign. While useful health behavior and communication theory was used to guide data collection and analysis, the data also helped develop theory in the area of e-health, a field that is in need of deeper theory development (Buller & Floyd, 2012). Theories are useful in deducing complex

phenomena and situations into more simplified categories and relationships that are easier to comprehend and evaluate (McGuire, 1989).

Pragmatically, this study will offer applicable recommendations to the CDC's Division of STD Prevention, one of the developers of the GYT Campaign, on how to better disseminate sexual health information to young adults via the online space. This research proposes to give a voice to the young adult population, a public that is often overlooked with assumptions that their age automatically causes them to be less at risk when it comes to health concerns. It is important for health organizations and agencies like the CDC to listen to this particular audience, as "effective listening is a critical communication strategy for gathering relevant health information" (Kreps, Bonaguro & Query, 1997, p. 301). Findings from this dissertation study suggest future approaches for online health campaign developers to better design messages that would resonate well with the young adult audience.

The theoretical frameworks used to guide this study are the health belief model (HBM; Rosenstock. 1974) and the situational theory of problem solving (STOPS; Kim & Grunig, 2011) one health behavior theory and one communication theory that were integrated for purposes of contributing to the fields of e-health and sexual health. The research that was undertaken determined how online channels affect young adults' perceived susceptibility/problem recognition, severity, benefits, barriers/constraints, level of involvement, self-efficacy, situational motivation, and cues to action. In addition, although previous studies have explored HBM factors in relation to sexual health attitudes and behaviors, they have primarily focused on HIV/AIDS infection (Hounton, Carabin, & Henderson, 2005; Lin, Simoni, & Zemon, 2005; A. S. Oyekale & T. O.

Oyekale, 2010). Furthermore, very few scholars have utilized STOPS to explore a health context, with one study to date focusing on information seeking and problem recognition of organ donation (Kim, Shen, & Morgan, 2011). These previous studies were all based on survey data. My research study, on the other hand, employed a qualitative approach to explore the meaning-making of the GYT campaign and how HBM/STOPS, e-health, and information seeking all interplay within the sexual health context. As Power (2002) argued, qualitative research is an ideal method to explore the complexities of the sexual health phenomenon, allowing for a deeper exploration of this topic that would not be achieved as easily via survey methods.

Qualitative methods were used to explore the perceptions of young adults surrounding sexual health, e-health and the GYT campaign. Specifically I conducted in-depth interviews and focus groups with these participants to help provide insight on their meaning making surrounding these issues. The CDC Division of STD Prevention, one of the creators of the GYT campaign, provided additional assistance in recruiting more participants by connecting me with their college affiliates and campaign networks. After data collection, I used a grounded theory approach (Glaser & Strauss, 1967) to analyze the data, in order to identify themes that have emerged to answer the research questions.

Key Conceptualizations

This study considers theory and literature from the fields of public relations, communication campaigns, social media, sexual health, and e-health. Existing research and in-depth discussion of these concepts are detailed further in the literature review. However, brief conceptualizations are offered here as a basis of this study.

Public relations. For this study, public relations was defined as "the management of communication between an organization and its publics" (Grunig & Hunt, 1984, p. 6). Based on this definition, public relations reaches its fullest potential and is the most effective when it participates in decision making with top management. With the public interest in mind, public relations aims to change knowledge, attitudes, and/or behavior among an organization's various publics. However, not only do public relations practitioners disseminate information and materials, but they also work to listen and understand their publics' perceptions and concerns.

Publics. In 1989 J. Grunig developed a nested model of segmentation based on Bonoma and Shapiro's (1983) nested approach to identifying and segmenting industrial markets. Using this model, communication practitioners can determine publics through various segments in order to implement communication programs targeted towards these segments. Although segments in the outer nest are easier and less costly to reach, Grunig (1989) believes that variables within the inner nest are more effective in communication planning and implementation and decisions should be made regarding the inner nest. Out of all the nests, Grunig (1989) states that the second nest of publics has the best concepts for segmentation and should be used after determining the behaviors of individuals within the most inner nest. In this particular context, a public is defined as a group that emerges and organizes surrounding a particular problem or issue (Grunig & Hunt, 1984).

Communication campaigns. Rogers and Storey's (1987) analysis of communication campaigns yielded 11 different definitions that they used to extract the following four essential elements: (1) a campaign is intended to generate specific outcomes or effects, (2) in a relatively large number of individuals, (3) usually within a

specified period of time, and (4) through an organized set of communication activities (p. 821). Rice and Atkin (2002) have since expanded on Rogers and Storey's (1987) elements, stating that public communication campaigns are:

> (a) purposive attempts; (b) to inform, persuade, or motivate behavior changes; (c) in a relatively well defined and large audience; (d) generally for noncommercial benefits to the individuals and/or society at large; (e) typically within a given time period; (f) by means of organized communication activities involving mass media; and (g) often complemented by interpersonal support (p. 427).

Social media. The growth and expansion of social media tools have provided yet another opportunity for health campaign developers and educators. Social media can be seen as the "various electronic tools, technologies, and applications that facilitate interactive communication and content exchange" (Booz Allen Hamilton, 2009, p. 1). Platforms such as Facebook and Twitter are increasingly being used to faciliate a dialogue within the public health community, and to support a variety of different health issues such as suicide prevention and heart health (Taubenheim et al., 2012). What makes social media such a valuable tool is not necessarily its technological components, but the ability to create communities, spark health discussions, and provide interaction and engagement via the online space in real time (Hughes, 2010).

Sexual health. Over the span of three decades, the concept and understanding of "sexual health" has evolved and changed, partially due to a series of political, social, and historical events, including the 1960s sexual revolution, the fight over reproductive rights and abortion, and the devastating spread of HIV/AIDS (Edwards and Coleman, 2004). The first internationally accepted definition of sexual health was published by the World

Health Organization (WHO) in 1975 following a technical consultation held in Geneva on the field of sexology: "Sexual health is the integration of the somatic, emotional, intellectual and social aspects of sexual being, in ways that are positively enriching and that enhance personality, communication, and love" (p. 6).

E-health. According to Eng (2001), e-health is defined as "the use of emerging information and communication technology, especially the Internet, to improve or enable health and health care" (p. 1). Mackert, Kahlor, Tyler, and Gustafson (2009) define e-health as the "delivery of health information and services via the Internet and related technologies" (p. 672) and claim that it can be used to create interventions targeting a variety of health concerns. According to Chan, Matthews, and Kaufman (2009), e-health is a subfield of medical informatics that "develops information and communication technology tools and applications for use in healthcare" (p. 86). They claim that e-health skills are comprised of reading/writing/numeracy skills, health literacy, computer literacy, information literacy, media literacy, and scientific literacy. A workshop presented by the Institute of Medicine (2009) defined e-health as "simplifying and handling processes relating to information, communication and transactions within and between health care institutions and professionals by utilizing information and telecommunications technologies" (p. 3).

Implications of Study

This study offers applied and theoretical contributions to HBM/STOPS, e-health, and sexual health. Although HBM and STOPS have been applied in a variety of health contexts (e.g., Farquharson, Noble, Barker, & Behrens, 2004; Hounton, Carabin, & Henderson, 2005; Kim, Shen, & Morgan, 2011; Sage, Southcott, & Brown, 2001;

Vardeman & Aldoory, 2008), this study contributes to the scholarly body of knowledge by applying these theories to an online context, and demonstrates the utility of these theories in e-health research. In addition this study offers insight into how HBM/STOPS can help explain the sexual health phenomenon, a topic that is in need of more qualitative exploration (Power, 2002). Furthermore, this study uses HBM/STOPS to examine the effectiveness of an online, sexual health campaign, to determine whether or not HBM/STOPS proves to be useful theoretical frameworks for future campaign planning. Finally, this study integrates the concepts of HBM/STOPS and e-health to produce a model for online health information seeking and management, a tool that would be beneficial to health consumers.

Additionally, the effects of campaigns are difficult to measure due to the weak nature of outcome evaluations (Noar, 2009). Many public health campaigns are evaluated through surveys aimed toward counting frequencies measuring awareness and behavior change. This study will examine a campaign qualitatively, to explore in depth *how* and *why* young adults turn to online channels for health information, and what suggestions they offer to improve how sexual health information in particular could be disseminated.

Finally, this study's findings may also be meaningful to a number of different stakeholder groups: (1) for online health communicators, the data can offer insight on how to better utilize the Internet for disseminating important health information; (2) for health care practitioners, especially STD clinicians and primary care physicians, as these are the primary communicators to young adults about the risks of STD infection, the data can provide suggestions on how to hold more effective conversations with patients about sexual health; and (3) for policy-makers, community leaders, and other change agents

10

who work to push the agenda surrounding sexual health and e-health literacy, the data can provide formative research findings that could assist in their efforts.

Organization of Dissertation

The next chapter establishes the literature that will lead to the study's research questions and proposed methodology. The literature review includes three major sections. First, background literature on communication campaigns will be explicated. Then, the specific research contexts surrounding this study will be discussed next in terms of the history and evolution of e-health and sexual health and how it pertains to this study. Finally, the theoretical frameworks of this study, the health belief model and the situational theory of problem solving will be described.

The third chapter describes the qualitative methodology that was used to collect and analyze data. Specifically, a constructivist/interpretive epistemology situates this study as the guiding research perspective. Chapter three will also delineate the recruitment of the sample for this study along with the how I approached the interviews and focus groups. Specific topics include: participant recruitment and sampling, informed consent, and confidentiality.

Chapter four describes the results of the data analysis and chapter five discusses the implications of these findings and conclusions drawn from this dissertation. Tables are listed prior to the Appendices, which are then followed by the references. Appendix A and B are the interview guides for the interviews and focus groups. Appendix C and D are the invitation emails used to recruit participants for the interviews and focus groups. Appendix E is a screenshot of the GYT campaign materials used in the study. Appendix F and G are the consent forms for the interviews and focus groups approved by the

Institutional Review Board. Finally, Appendix H is the research question map that

illustrates how each research question links to the appropriate theoretical framework and

interview questions.

Chapter 2 – Literature Review

This chapter provides an overview of the literature drawn from a number of different fields. First, this review defines and delineates the history of public health communication campaigns, describing the principles of effective campaign design and how campaigns historically have measured effects. Next, to get a better understanding of the specific context of this study, the evolution of e-health will be described, using exemplary interventions and campaigns as examples, and how design and effectiveness are measured in relation to the concept of e-health literacy. I then explain the history of sexual health promotion and key examples of both traditional and e-health-based campaigns. Then the theoretical foundations of this study, the health belief model and the situational theory of problem solving, will be described. An argument will be made as to why these theories should be integrated, and a proposed model, the E-Health Information Management Model (E-HIMM) will be introduced and explicated. Finally, a brief summary of the GYT campaign is offered. This chapter leads to five research questions that guided data collection.

Background Literature: Campaigns

By delving into the history of campaigns along with the factors that constitute the success or failure of a campaign, I can better determine how to improve the GYT Campaign as well as know how to better disseminate information to the young adult audience.

Public Health Communication Campaigns

With the number of health issues increasing at a growing rate, there is now a societal need for health recommendations to be disseminated to large numbers of people quickly and efficiently (Snyder, 2007). Thus, public health communication campaigns have become a staple in promoting public health messages (Hornik, 2002) and creating social change (Paisley, 2001). In other words, these campaigns are created to help society "battle actual causes of death" (Snyder, 2007, p. 327) through persuading individuals to make lifestyle and behavior changes that would benefit them in the long run. Extant research has demonstrated that this can only be achieved by creating sound campaign goals and evidence-based practices of campaign implementation and design (Derzon & Lipson, 2002; Hornik, 2002; Noar, 2006).

Defining Communication Campaigns

Put most simply, Snyder (2007) defines communication campaigns as "organized communication activity, directed at a particular audience for a particular period of time, to achieve a particular goal" (p. 328). With its roots stemming from military interventions, campaigns are believed to last until they have met some sort of specific objective (Salmon & Atkin, 2003; Snyder, 2007) through the implementation of various strategies and tactics.

Rogers and Storey's (1987) analysis of communication campaigns yielded 11 different definitions that were extracted to result in the following four essential elements: (1) a campaign is intended to generate specific outcomes or effects, (2) in a relatively large number of individuals, (3) usually within a specified period of time, and (4) through an organized set of communication activities (p. 821). Rice and Atkin (2002) have since

adapted and expanded on Rogers and Storey's (1987) definition, stating that public communication campaigns are:

> (a) purposive attempts; (b) to inform, persuade, or motivate behavior changes; (c) in a relatively well defined and large audience; (d) generally for noncommercial benefits to the individuals and/or society at large; (e) typically within a given time period; (f) by means of organized communication activities involving mass media; and (g) often complemented by interpersonal support (p. 427).

Paisley (1998, 2001) also discussed five other conceptual distinctions regarding campaigns: *objectives versus methods* (whether campaigns are strategies of social control to achieve an objective, or campaigns are seen as a genre of communication); *strategies of change* (if the campaign emphasized education about how to change behaviors or attitudes); *individual or collective benefits* (emphasis on individual change or larger change to society); *first-party and second-party entitlement* (whether campaign sources have a primary stake in the issue or whether they represent other stakeholders who cannot present their case); and *types of stakeholders* (who the primary campaign sponsors and actors are as this affects campaign design, audiences, funding, and the public agenda) (as cited in Rice & Atkin, 2002).

Paisley (1998) contends that campaigns should work to advise, inform, advocate, and reinforce versus exhort audiences, as individuals perceive the social context surrounding campaigns differently. Silk, Atkin, and Salmon (2011) argue that campaigns should work to play on the strengths of selected media channels by (1) imparting new knowledge; (2) enhancing salience; (3) providing instruction; (4) and stimulating information-seeking (p. 217).

A Brief History

Communication campaigns are known to have been in existence since the 18th century, with examples such as Cotton Mather and his movement toward inoculations of Boston residents against smallpox in 1721, and Thomas Paine and his *Common Sense* pamphlet that advocated for independence from the Kingdom of Great Britain during the Revolutionary War. Mass confrontation and local organizing became more frequent tactics in the 19th century, as issues including slavery abolition, women's suffrage, and temperance unions were the focus of campaign design (Rice & Atkin, 2002; Snyder, 2007). By the 20th century, the prevalence of muckrakers exposed corruption and social problems through newspapers and magazines, and The Ad Council was created in 1942 to disseminate messages supporting the U.S. Government's involvement in World War II, including "Loose Lips Sink Ships" and Rosie the Riveter (Ad Council, 2011; Rice & Atkin, 2002; Snyder, 2007). The Ad Council would go on to create the now well-known classic campaigns such as the Smokey Bear and forest fire prevention campaign in 1944, the longest running campaign in Ad Council history (Ad Council, 2011).

It was also during the mid-20th century where social science became a part of campaign design and evaluation. The 1940s and 1950s were seen as the era of *minimal effects*, where many communication campaigns had little to no direct effect and audiences were either not paying attention or were not interested (Noar, 2006; Rice & Atkin, 2002). Campaigns in the 1960s and 1970s, particularly the Stanford 3-city Heart Disease Prevention Program (Flora, 2001; Fortmann, Williams, Hulley, Haskell, & Farquhar, 1981), brought hope to communicators and scholars that campaigns can succeed, and that it is the campaign design principles, not the audience recipients of the campaign, that

determine the success or failure of the entire campaign itself (Noar, 2006). By the 1980s and 1990s, campaigns were seen to have more *moderate effects*, where applying proper tools and metrics such as media advocacy, audience targeting, message design, channel usage, budgeting, and time management could result in moderate success (Rice & Atkin, 2002). In fact, campaigns were seen to have such positive effects that Congress directly mandated the creation of two large-scale campaigns: (1) the youth antidrug media campaign run by the Office of National Drug Control Policy (ONDCP); and (2) the Verb Campaign run by CDC (Snyder, 2007).

Noar (2006) argues that the new millennium brings forth an era of *conditional effects*, where principles of campaign design that were considered effective in previous eras are continued to be used efficiently and creatively. Snyder (2007) claims that campaign design has become more sophisticated over time, with the more frequent usage of theory implementation, formative research, audience targeting, goal setting and community organizing.

Principles of Effective Campaign Design

Studies and meta-analyses of the campaign literature have derived a set of guiding principles that communicators can use to develop an effective campaign (Noar, 2006; Snyder, 2007; Snyder & Hamilton, 2002; Rice & Atkin, 2002). First, formative research should be conducted before the onset of the campaign (Gittleson et al., 2006; Mendelsohn, 1973; Noar, 2006), the process in which the target audience is studied and assessed to determine how relevant they are with the specific health issue and whether they clearly understand that issue of interest. Messages should also be pretested with target audiences in the formative research phase to decide whether those messages are

17

culturally sensitive and geographically appropriate (Gittleson et al., 2006; Noar, 2006). By receiving feedback from target audiences, campaigners can gauge whether their messages are too righteous, the recommendations too extreme, the execution too politically correct, and the execution too self-indulgent (Silk, Atkin, & Salmon, 2011).

Second, campaign designers should come to understand their target audience in a way to be able to effectively segment them into various sub-audiences (Rice & Atkin, 2002). Health campaigns can subdivide the population into categories such as age, sex, ethnicity, stage of change, susceptibility, self-efficacy, values, personality characteristics, social context, media usage, lifestyle, pscyhographics, uses and gratifications, and/or channel accessibility (Rice & Atkin, 2002; Silk, Atkin, & Salmon, 2011). Silk, Atkin, and Salmon (2011) list two major strategic advantages to segmenting audiences into further subsets: (1) message efficiency is maximized if subsets are ordered according to importance and receptivity; and (2) effectiveness of messages increase if the content, form and style can be tailored to different subgroups' predispositions and abilities. There are three major types of audiences that can be targeted in a communication campaign: *focal segments* are the main target audience members who are grouped by a number of different factors such as levels of risk or illness, readiness, income and education; *interpersonal influencers* are the opinion leaders and media advocates who work as role models to push the public agenda; and *societal policymakers* affect the legal, political, and resource infrastructure through regulations and social action (Rice & Atkin, 2002). It is important for communicators to effectively segment and target messages, as research has shown that failure to do so results in the ultimate failure of the campaign (Myhre & Flora, 2000; Noar, 2006).

Third, campaign designers should determine the best theory to serve as the

conceptual foundation of the campaign (Noar, 2006). Rice and Atkin (2002) contend that

in spite of its applied nature, campaigns that utilize a theoretical framework have found to

be more effective. Theories are useful in deducing complex phenomena and situations

surrounding the health context into more simplified categories and relationships that are

easier to comprehend and evaluate (McGuire, 1989). Also in terms of evaluation,

inadequate theorizing can lead to disastrous outcomes for campaign developers, such as

looking at the wrong effects, prematurely expecting certain behavior changes, or using

the wrong units of analysis for comparing groups (Hornik & Yanovitzky, 2003).

Fourth, campaign designers can use the theoretical framework they have chosen

to develop a sound message design strategy (Murray-Johnson & Witte, 2003). The goal is

to create persuasive messages that are both novel and creative, and allow for

interpersonal discussions with key influencers (Noar, 2006). This can be done by first

choosing the best *stimuli* to grab the attention of audiences, namely through making them

as salient as possible (Witte, Meyer, & Martell, 2001) and utilizing other message

features such as vividness, repetition, and psychographic characteristics of target

audiences (Murray-Johnson & Witte, 2003). The message then has to have the ability to

motivate these audiences to action, which has traditionally been accomplished through

fear appeals (Witte & Allen, 2000). Atkin (2002) warns campaign message designers to

use caution with fear appeals, claiming that they must be coupled with efficacy

messaging, susceptibility evidence, personal applicability, and credible content. The

notion of efficacy in particular leads to the final aspect of effective health message

design, allowing for the *appraisal of resources and environment* to determine what

coping mechanisms and resources are available to promote healthy behavior (Murray-Johnson & Witte, 2003). The appraisal process encompasses a number of factors, including the level of perceived efficacy, social norms, and perceived benefits/barriers that could impact what an individual does to avert a threat.

Fifth, campaign designers need to be cognizant of what channels they will select to disseminate their messages. Channel selection can be dictated by a number of factors including the media usage patterns of the target audience, the nature of the message, and the budgetary constraints of the campaign developers (Salmon & Atkin, 2003). Atkin (1994, as cited in Salmon & Atkin 2003) offers a number of considerations for campaign designers in terms of which channels should be selected:

- *Reach* (proportion of community exposed to the message);

- *Specialization* (targetability for reaching specific subgroups);

- *Intrusiveness* (ability to overcome selectivity and command attention);

- *Safeness* (avoidance of risk of boomerang or irritation);

- *Participation* (active received involvement while processing stimuli);

- *Meaning modalities* (array of senses employed in conveying meaning);

- *Personalization* (human relational nature of source-receiver interaction);

- *Decidability* (mental effort required for processing stimuli);

- *Depth* (channel capacity for conveying detailed and complex content);

- *Credibility* (believability of material conveyed);

- *Agenda-setting* (potency of channel for raising salience priority of issues);

- *Accessibility* (ease of placing messages in channel);

- *Economy* (low cost for producing and disseminating stimuli); and

- *Efficiency* (simplicity for arranging for production and dissemination)

Traditionally television, radio, and print media have been popular choices for campaign developers (Noar, 2006), but organizations have begun using websites and other interactive technologies to get their messages across (Silk, Atkin, & Salmon, 2011), as these channels can provide tailored messages with more individualized, personalized feedback (Lustria et al., 2009).

Finally, the most effective campaigns are evaluative in nature. This can take the form of formative evaluation, where data is collected and monitored during the course of the campaign (Atkin & Freimuth, 2001; Flora, 2001; Valente, 2001) as well as summative evaluation, where the underlying theory and/or program itself is measured for effectiveness (Rice & Atkin, 2002). This is not an easy task, however – campaigners are faced to deal with complex challenges when it comes to evaluation, such as the determining the standards used in measuring effectiveness, ensuring outcomes result from the campaign and not from other external factors, and extricating effects from different subsets of targeted audiences (Hornik, 2002). Campaign designers also need to be aware of the most common campaign fallacies, as projected by McGuire (1989): (1) *attenuated effects,* overestimating the likelihood of achieving the final outcomes; (2) *distal measure*, not clarifying the temporal nature of the outcome; (3) *neglected-mediator*, ignoring interactions among communication inputs; (4) *compensatory principle*, overlooking contrasting effects; and (5) *golden mean principle,* overemphasizing communication inputs. Due to the complicated nature of evaluating the effectiveness of campaigns, the majority of studies have employed somewhat weak designs, relying on mostly one group, pretest-posttest surveys that do not control for

threats of internal validity, such as history, maturation, testing, or instrumentation (Noar, 2006).

Measuring Effects of Public Health Campaigns

Overall, meta-analyses of communication campaigns have shown that campaigns have effects, but these effects are very small (Snyder & Hamilton, 2002; Snyder et al., 2004). According to Snyder (2007), the average effect of mediated health communication campaigns in the United States is 9 percent. These effect sizes can shift according to several factors. For example, the health topic plays a role, as Snyder (2007) found that seatbelt campaigns were the most effective, and youth substance abuse prevention campaigns were the least effective. Derzon and Lipsey's (2002) meta-analysis of substance-use campaigns also found that targeting youth had the least effects. The type of change targeted by the campaign also proved to have differing effects: promoting or substituting a new behavior is easier to achieve (12% average change) than cessation (5%) or prevention (6%) (Snyder et al., 2004). In addition, campaigns that employ some sort of legal enforcement, share new information, or promote the use of health services also have been found to be more effective (Snyder & Hamilton, 2002). For example, Snyder et al. (2004) found that campaigns utilizing some type of policy enforcement resulted in a 17 percent behavior change, whereas those that did not involve enforcement ranged from 3 to 5 percent.

To serve as a guideline, Rice and Atkin (2002) list six kinds of effectiveness that campaigners can use to measure the effectiveness of campaigns:

(1) *definitional effectiveness*, the extent to which various stakeholders demonstrate the phenomenon is a social problem; (2) *ideological effectiveness*,

the extent that the problem is seen as social or individual; (3) *political effectiveness*, the extent to which a campaign create symbolic value for stakeholders; (4) *contextual effectiveness*, the extent the intervention achieved its goals within a specified context; (5) *cost-effectiveness*, the extent the campaign saves more money and resources; and (6) *programmatic effectiveness*, the extent the campaign reached its goals and objectives. (p. 446).

However, Salmon and Murray-Johnson (2000) caution campaigners to distinguish the difference between measuring *effectiveness* versus *effects*, stating that a campaign that is effective in reach doesn't necessarily cause an effect in attitude or behavior change. Or conversely, a campaign may cause unintended effects that are ultimately detrimental to target audiences, such as creating confusion or misunderstanding, inflated perceptions of risk, desensitization, reactance, a sense of blame, reinforcement of existing beliefs, creation of negative or stereotypical social norms, and an increase in power imbalances (Cho & Salmon, 2007).

Silk, Atkin, and Salmon's (2011) discussion of campaign effects stated that conventional campaigns have typically limited direct effects on actual health behavior, being more capable of moderate effects on cognitive outcomes. Instead of moving individuals into immediate action, communication campaigns have been more successful in leading individuals toward the process of behavior change through mechanisms such as increasing awareness, knowledge, and information-seeking (Arkin & Doner, 2008). However, this process is no simple feat. According to Hornik and Yanovitzky (2003):

Many campaigns' models of effect do not operate on the simple model that exposure will lead to new cognitions and that new cognitions will lead to behavior

change among individuals over a short term, even though evaluation designs may

act as if that were the only path of effect. Contrarily, effects may operate through

social or institutional paths as well as through individual learning; they may

require substantial levels of exposure achieved through multiple channels over

time; they may take time to accumulate enough change to be detectable; they may

produce effects on specific or on generalized outcomes; they may be expected to

affect some members of the audience but not others. (p. 222)

Research Context

I will now more thoroughly discuss the specific contexts that will guide this

exploration of a campaign targeted toward young adults, namely e-health and sexual

health.

E-Health

This study looks at a sexual health communication campaign from an e-health

perspective. Therefore, this section explicates the literature surrounding this particular

phenomenon, by defining the concept of e-health, discussing the evolution of e-health

research, principles of effective e-health campaign design, and the benefits and

challenges of e-health interventions and campaign implementation and design.

Defining E-Health

According to Eng (2001), e-health is defined as "the use of emerging information

and communication technology, especially the Internet, to improve or enable health and

health care" (p. 1). Though this is the most frequently cited definition in the field of

communication, other definitions of e-health have emerged in the extant literature. A

systematic review of definitions by Oh et al. (2005) resulted in 51 unique definitions of e-health proposed within the literature (For a select list of definitions, see Table 1).

Mackert, Kahlor, Tyler, and Gustafson (2009) define e-health as the "delivery of health information and services via the Internet and related technologies" (p. 672) and claim that it can be used to create interventions targeting a variety of health concerns. According to Chan, Matthews, and Kaufman (2009), e-health is a subfield of medical informatics that "develops information and communication technology tools and applications for use in healthcare" (p. 86). They claim that e-health skills are comprised of reading/writing/numeracy skills, health literacy, computer literacy, information literacy, media literacy, and scientific literacy. A workshop presented by the Institute of Medicine (2009) defined e-health as "simplifying and handling processes relating to information, communication and transactions within and between health care institutions and professionals by utilizing information and telecommunications technologies" (p. 3). Regardless of the definition used, it is clear from the voices of these scholars that the practice of e-health utilizes information and communication technology tools to deliver health services.

Because of its connection to other disciplines and subareas, e-health has frequently been associated with medical informatics, consumer health informatics, telemedicine, and telehealth; oftentimes these terms are even used interchangeably. However, Glueckauf and Lustria (2008) make the distinction of e-health from these other fields by emphasizing its focus on improving health outcomes and access to health care services. Unlike other areas related to technology and health, e-health is not restricted to

just treatment and information delivery – it encompasses the entire process of improving healthcare by way of interactive technologies.

The Evolution of E-Health Research

The rise of technology has changed how people take control of their health, enabling individuals to choose to live healthier lives and make better treatment decisions (Goetz, 2010). Kreps and Neuhauser (2010) argue that a "communication revolution" (p. 329) is brewing in terms of delivering health care promotion and service through the use of new health information technologies. This revolutionary growth of the Internet as a health information channel sparked a rise in e-health research, which marked its beginnings with three notable events that occurred in 1999: (1) the publication of *Wired for Health and Well-Being: The Emergence of Interactive Health Communication*, edited by Tom Eng and Dave Gustafson, a landmark report that identified how e-health can contribute to the health of the U.S. population; (2) the First E-health Developers' Summit hosted by the eHealth Institute, which was one of the first gatherings of scholars and program developers interested in e-health; and (3) the launch of the *Journal of Medical Internet Research (JMIR),* edited by Gunther Esyenbach, the first attempt to promote high-quality research on e-health (Ahern, 2007).

The following year, the dotcom bubble burst, leading to the collapse of a number of health-related websites. However, in spite of this setback, researchers continued to move forward with e-health studies, and *JMIR* released the first of its many "What is E-health" series to spark a discussion surrounding the definition and conceptualization of e-health (Ahern, 2007). Also in 2000, the University Health Network and the University of Toronto developed the Centre for Global eHealth Innovation, whose mission was to

"Imagine a world in which people, regardless of who they are or where they live, use state-of-the-art information and communications technologies with enthusiasm, proficiency, and confidence, to achieve the highest possible levels of health and to help health systems make the most efficient use of available resources" (O'Brien, 2012).

August 2001 marked a research dialogue between the Robert Wood Johnson Foundation (RWJF) and the National Cancer Institute (NCI) on e-health as platform for conducting research. Meeting participants discussed a number of relevant issues, including usability, tailoring, data-collection tools and systems, ensuring confidentiality of information, participant recruitment, obtaining representative samples, and outcome measurement (Ahern, 2007). E-health reached the attention of the clinical field at a conference sponsored by the Association of American Medical Colleges and the Institute of Medicine. Conference attendees offered recommendations for integrating e-health into clinical research, such as developing data repositories and adopting a set of common standards (Ahern, 2007).

In 2002 the RWJF's Health e-Technologies Initiative was established, a $10.3 million, national grant-funding program that functioned until April 2009. The overarching goal of the Initiative was to explore whether e-health "applications improved processes and outcomes of care for culturally diverse groups of patients/consumers and supported provider adherence to evidence-based care" (Health e-Technologies Initiative, 2012). To help formulate the research agenda for the Initiative, 38 semi-structured stakeholder interviews were conducted in the summer of 2002 that included representatives from the pharmaceutical industry, physician/provider organizations, consumer groups, purchasers, government agencies, and futurists (Ahern, 2007; O'Brien,

2012). There were five overarching topics that were covered in the interviews: (1) the credibility, quality, and validity of current e-health research for health behavior change and chronic disease management; (2) experimental methods for evaluation in the field; (3) obstacles to the assessment of e-health applications; (4) cost-effectiveness of these programs; and (5) the challenges of using e-health to reach traditionally underserved populations (Ahern, 2007). The themes that emerged from the stakeholder interviews included a desire for a more coordinated effort to define and integrate the field, more rigorous evaluation methods, increased quality and value of e-health's potential, and the challenge of addressing health disparities with e-health research and applications (Ahern, Kreslake, & Phalen, 2006).

The past decade has seen an increase in the amount of interest in e-health research, resulting in more empirical studies in a number of journals. Pagliari et al.'s (2005) systematic review of the literature found that term *eHealth* was published in 154 different journals, with the majority of them appearing in IT-related publications, followed by clinical journals and health services journals. A quarter of the publications focused on telemedicine, while 13 percent discussed the Internet, and 6 percent were concerned with issues such as the scope of e-health, future trends, and challenges. Some key scholars that have emerged in the study of e-health include Tom Eng, Gunther Eysenbach, Russell Glasgow, David Gustafson, Gary Kreps, Mia L. Lustria, Seth Noar, and Victor Stretcher.

Principles of Effective E-health Campaign and Intervention Design

According to Bennett and Glasgow (2009), e-interventions are "systematic treatment/prevention programs, usually addressing one or more determinants of health

(frequent health behaviors), delivered largely via the Internet (although not necessarily Web-based), and interfacing with an end user" (p. 274). Several scholars have examined the aspects of an effective e-health intervention, which in turn could be applied to the implementation of e-health campaigns. First of all, the intervention should be based on some sort of theoretical framework for health behavior change. This allows for the intervention to have a strong foundation in order to gauge how different factors cause the general public to change their attitudes, beliefs, or behavior intentions. By using a theory as the underlying foundation for a website, web portal, or program, health professionals can more easily evaluate the true effectiveness of the campaign through the testing of different variables. To date, theories that have been frequently used in e-intervention research include the transtheoretical model (Prochaska, Redding, & Evers, 2005), social cognitive theory (Bandura, 1986), and diffusion of innovations (Rogers, 2003).

The concept of tailoring has also been repeatedly mentioned as one main way to engage target audiences (Bennett & Glasgow, 2009; Brug, Oeneme, & Campbell, 2003; Gans et al., 2009; Glasgow, 2010; Lustria et al., 2009; Saperstein, Atkinson, & Gold, 2007) and has been found to be more generally effective than the use of generic messages (Neuhauser & Kreps, 2003). According to Brug, Oeneme, and Campbell (2003), tailoring in health education deals with "any combination of information or change strategies intended to reach one specific person, based on characteristics that are unique to that person, related to the outcome of interest, and have been derived from an individual assessment" (p. 1030S). The basic idea behind tailoring is to customize information to an individual (versus a group) in a way that is viewed more personally relevant, making the message more likely to be attended to and cognitively processed, which in turn leads to a

higher likelihood of behavior change (Kreuter & Way, 2003; Noar, Harrington, & Aldrich, 2009; Noar & Harrington, 2012a). Advantages of tailoring an e-health intervention include its cost-effectiveness, flexibility, high efficacy, and broad reach (Noar & Harrington, 2012a). Other similar strategies that were found to be effective include creating a personalized health plan (Bandayrel & Wong, 2011; Bennett & Glasgow, 2009; Brug, Oeneme, & Campbell, 2003; Stevens et al., 2003) and offering personalized feedback to users (Kraschnewski, 2011).

Additionally, e-interventions should work to disseminate messages that are personally relevant to the user (Brug, Oenema, & Campbell, 2003; Glasgow, 2010; Saperstein, Atkinson, & Gold, 2007). As previously mentioned, because these interventions are oftentimes specifically tailored to the user, messages need to be created that "speak" to that individual user. In turn, because that individual is exposed to personally relevant and highly tailored messages and feedback, they are able to more easily cognitively process the information, increasing the chances of behavior change (Brug, Oenema, & Campbell, 2003). Hong (2006) found that relevant messages are more likely to be found credible by online health information seekers.

From a pragmatic standpoint, costs for a web-based intervention are a lot less constraining as compared to television or radio, allowing for more flexibility in terms of the amount of creativity that will be used in the intervention. Engaging visuals was another way that an e-intervention can keep the attention of users (Bennett & Glasgow, 2009; Glasgow, 2010; Noar & Harrington, 2012b). Bennett and Glasgow (2009) claim that e-interventions need to be "graphically rich" (p. 282) when disseminated via the Web. In addition, e-interventions have the ability to use a variety of different multimedia

platforms, including still images, video, and sound files (Noar & Harrington, 2012b).

Therefore, online health program developers should include interesting narratives,

graphics, audio and video clips that are easy to comprehend, yet still engaging for a

variety of different audiences (Kreps & Neuhauser, 2010). Interventions should be

developed so that they are interactive, by way of source features (the user creates the

content), medium features (the interface enhances the perceptual representation of the

content), and message features (interaction with the actual system) (Sundar, Rice, Kim &

Sciamanna, 2011).

Finally, e-interventions have been found to be effective when they incorporate

some sort of collaboration, either between professionals and users, or between the users

themselves (Bandayrel & Wong; Tate et al., 2001; Kraschnewski, 2011). Successful

interventions have been found to have institutional buy-in from clinicians and medical

practitioners, either by using their expertise and guidance in shaping the program, or

through support either by sponsorship or funding (Lustria, Brown, & Davis, 2007). E-

interventions have the capacity to connect users with providers who would otherwise be

constrained geographically (Sundar, Rice, Kim, & Sciamanna, 2011). Houston et al.

(2003) found that physicians who were satisfied with the use of e-mail in their

consultations thought the practice to be not only time saving but also helps them deliver

better care. Patients who were equipped with health information found on the Web felt

more legitimated by their providers, leading to a decreased concern about the health

problem (Sabee, Aldridge, Imes, & Bylund, 2005). Other positive outcomes of

collaborating with providers online include increased shared decision-making,

collaboration and teamwork between the two parties and creating a more efficient use of clinical time (Wald et al., 2007).

More social interaction and the possibility of creating social networks developed as an opportunity for many e-interventions (Bennett & Glasgow, 2009; Glasgow, 2010). In particular, Brug, Oenema, and Campbell (2003) found that healthier outcomes and behavior change occurred because e-interventions were more likely to be shared and discussed with others. Ancker et al. (2009) discussed a series of effects that result from web-based peer-to-peer communication such as online support groups. The first effect, information sharing, posits that online support groups allow individuals to share advice, interpretations of medical language or events, and personal experience (p. 40). The second effect, emotional and instrumental support, relates to the notion that participants work to improve their health and well-being through expressive writing, sharing personal feelings, and receiving supportive comments. The final effect, peer modeling, refers to the social norms and role models that emerge as a result of the online support group.

Benefits of E-health Interventions and Campaigns

There are several benefits to undertaking the development of an e-health intervention. E-interventions are more self-guided, and users can work at their own pace at whatever time is most convenient for them (Noar & Harrington, 2012b). In a similar vein, e-interventions are almost always available continuously (Glasgow, 2010). They can be accessed at any time without the constraints of scheduling or traveling to meet with groups or counselors face-to-face (Saperstein, Atkinson, & Gold, 2007). Users of e-health interventions also have the ability to access diverse sources of health information, transcending geographic and socioeconomic barriers (Sundar, Rice, Kim, & Sciamanna,

2011) via a variety of different channels, including laptop, desktop, mobile phone, or tablet device (Noar & Harrington, 2012b). This is useful especially for vulnerable populations, who are unable to get access to a medical professional, leading to the reduction of health disparities (Sundar, Rice, Kim, & Sciamanna, 2011).

This benefit can be linked to another advantage of the e-intervention, which is the opportunity for anonymity –users can choose to remain anonymous while participating in the intervention (Bennett & Glasgow, 2009; Saperstein, Atkinson, & Gold, 2007). This can help with self-disclosure issues that may have stemmed from trauma or stigma as a result of a condition or illness (Wright & Bell, 2003; Wright, 2000), leading to the development of a social community that allows for a discussion of sensitive issues without fear or embarrassment (Fotheringham et al., 2000; Furger, 1996; Wright 1999). By creating an e-intervention that doesn't identify people directly, users may feel more obliged to interact and engage with the application, and can often make better sense of their condition, such as cancer (Noar & Harrington, 2012b; Sundar, Rice, Kim, & Sciamanna, 2011).

A final advantage of e-health interventions is its automated nature, where collection of data is built into the program and individuals can enter their data fairly seamlessly with instant results (Noar & Harrington, 2012b), offering a management tool of health records and information (Sundar, Rice, Kim & Sciamanna, 2011). This trend toward reciprocal information exchange also opens up the opportunity for giving control to the user, allowing for them to take part in the decision-making process in regards to their health and increasing their levels of self-efficacy (Strecher, 2007). The flexibility of the Internet is useful in this regard, as users can seek out materials whenever they would

like and how often they would like, and can change and adapt programs, and update them fairly easily (Fotheringham et al., 2000; Noar & Harington, 2012b).

Challenges of E-health Interventions and Campaigns

One challenge facing developers of e-interventions is the possibility that users will lose interest in the e-intervention over time (Bennett & Glasgow, 2009). In one study, use of the intervention website was relatively high throughout the first four months, but dropped significantly as the intervention continued, from 11 logins per month to less than three per month (Glasgow et al., 2011). The authors suggested increasing the frequency of interactive technology-based strategies in order to remedy this decline, which occurs frequently with online interventions. This wane in interest has been an ongoing problem for researchers, as attrition rates for these types of studies have been generally low (Bennett & Glasgow, 2009; Stevens et al., 2003). However, Eysenbach (2005) argues that e-health trials should not follow the traditional clinical trial paradigm and in a way expect low attrition in interventions as a natural and typical feature.

Another issue that has raised concerns is the apparent lack of personal contact that occurs as a result of designing an e-intervention (Bandayrel & Wong, 2011). Kraan et al. (2006) listed some disadvantages when it came to online asynchronous communication; namely, the absence of non-verbal cues to determine the nuances in communication, the potential time lag between responses, or the inundation of responses that makes it difficult to keep up with postings. Glasgow (2010) argues that at least a moderate level of human support is necessary in order for the e-intervention to be effective. His research with Toobert that focused on a diabetes self-management intervention found that

coupling the electronic component with face-to-face meetings with a health counselor helped reduce fat intake (Glasgow & Toobert, 2000). Glasgow (2010) argues that designers of e-interventions need to balance the overall burden placed on the patient with the burden placed on the setting or provider of the intervention.

As the number of online health applications increase, so does the volume and scope of health-related data on Web, an overabundance of information that can be overwhelming and difficult to sort through for users (Morahan-Martin, 2004). Users may choose to trust online health information, even if it is unverified, inaccurate, and/or commercialized by pharmaceutical companies (Sundar, Rice, Kim, & Sciamanna, 2011). For online support groups in particular, the lack of a moderator over the quality and validity of information exchanged in the support group may lead members to be directed to false health information, or even worse, members could engage in aggressive, destructive, and socially inappropriate behavior (Kraan et al., 2006). Health program developers and professionals need to pay special attention to these issues of accuracy and privacy, to ensure that this information remains secure and confidential.

Finally, the issue of the actual impact of an e-intervention has been discussed in the literature (Saperstein, Atkinson, & Gold, 2007; Stevens et al., 2003). Lustria et al. (2007) found that e-health programs were for the most part unsuccessful due to the following reasons: methodological problems (i.e., small sample sizes, lack of statistical power, self-selection bias and self-report data), lack of engagement or compliance, insufficient intensity of the intervention, high attrition rates, and technological problems. Being that the growth of e-health interventions are relatively still in its early stages, there has yet to be strong evaluative research to determine the effectiveness of online

programs. More research needs to be conducted to determine exactly what specific health benefits result after the implementation of an e-intervention. For many evaluators, success is solely measured by number of unique users or page views. Though this metric is helpful in determining the usage of the website or web portal, it does not effectively measure the actual quality of the application. Two ultimate questions that Eng (2002) asks in this regard are: "Does the application improve the user's health status?" and "What is the health and social impact of the application on the population level?" (p. 270). Health program educators need to determine how to accurately measure these items to better assess the impact of their programs. In addition, researchers need to work outside of the formative stages of e-health programs through rigorous scientific methods to determine outcome measures that can be replicable in the future.

The Role of Social Media in E-Health Campaigns

The growth and expansion of social media tools have provided yet another opportunity for e-health campaign developers and educators. Social media can be seen as the "various electronic tools, technologies, and applications that facilitate interactive communication and content exchange" (Booz Allen Hamilton, 2009, p. 1). Platforms such as Facebook and Twitter are increasingly being used to faciliate a dialogue within the public health community, and to support a variety of different health issues such as suicide prevention and heart health (Taubenheim et al., 2012). What makes social media such a valuable tool is not necessarily its technological components, but the ability to create communities, spark health discussions, and provide interaction and engagement via the online space in real time (Hughes, 2010).

A vital point for e-health campaign developers to consider is the fact that social media should in no way replace traditional forms of communication, but rather should expand and enhance campaigns by way of creativity and broader reach (Taubenheim et al., 2012). In addition, like more traditional health communication campaigns, the same principles for effective campaign design still apply to a program utliizing social media channels, with similar principles as presented by Olgivy's report "Using Social Media Platforms to Amplify Public Health Messages" (Hughes, 2010): (1) establish goals, objectives and strategies specifically for digital media; (2) identify audiences according to online information seeking, preferred social media networks, and social media usage; (3) optimize content by listening and engaging in bidirectional conversation on the specific health issue; and (4) evaluate digitally.

E-Health Literacy

With more and more people taking control of their health to learn about a variety of conditions, diseases, and topics, the fields of medicine and public health are starting to shift into a more consumer-focused practice. Individuals are seeking health information from a variety of different sources, including interpersonal interactions, television, print media and the Internet (Galarce, Ramanadhan, & Viswanath, 2011). However, with 53 percent of adults having intermediate levels of health literacy (Kutner, Greenberg, Jin, & Paulsen, 2006), it has become evident that health literacy is a growing problem that warrants further attention.

The definition of health literacy has been constantly evolving, with inconsistencies across studies in terms of what skills are necessary to deem a person "literate" with ones health. Ratzan and Parker (2000) has been cited as the most widely

used definition: "the degree to which individuals have the capacity of obtain, process, and understand basic health information and services needed to make appropriate health decisions" (p. ix). Definitions aside, the importance of assessing health literacy levels in individuals is very evident in order to better provide health information, resources, and services. Extant research has found correlations between low levels of health literacy and negative health outcomes, including poorer knowledge about health conditions (Kalichman & Rompa, 2000; Williams et al., 1998), lower use of preventative services (Scott et al., 2002), higher rates of medication non-adherence (Kalichman, Ramachandran, & Catz, 1999), higher hospitalization rates (Baker et al., 2002), and poorer self-reported health (Baker et al., 1997). According to Parker, Baker, Williams, and Nurss (1995), increasing levels of basic skills such as reading, writing and numeracy can greatly assist individuals in conducting health-related tasks, such as understanding oral and written medical instructions, knowing how to fill prescriptions, asking questions to medical providers, and solving problems that could arise in the course of planning and implementing health care services.

Nonetheless, navigating the online sphere adds another dimension to health literacy, especially for young adults. Even though the majority of this population is competent in computer use and Internet searching, Hansen et al. (2003) found that their success in finding specific health information varied, due to frustration over the sheer volume of information available, as well as determining the credibility and accuracy of the information. Thus, with 80 percent of adult Internet users looking for health information online (Fox, 2011), it became imperative that a conceptualization of e-health

literacy was needed in order to determine exactly how to operationalize this measure. as a way to determine how individuals come to understand online health information.

There is currently one definition of e-health literacy that is predominantly cited all throughout the literature, proposed by Norman and Skinner (2006): "The ability to seek, find, understand, and appraise health information from electronic sources and apply the knowledge gained to addressing or solving a health problem" (p. e9). Using the metaphor of the lily to model the idea of e-health literacy, Norman and Skinner (2006) claim that the "petals" of the lily consist of six core literacies that can be applied to the e-health setting, with the "pistil" of e-health literacy tying them all together (p. e9, see Figure 1).

Figure 1. E-health literacy lily model

Traditional Literacy & Numeracy

Computer Literacy

Health Literacy

eHealth Literacy

Information Literacy

Media Literacy

Science Literacy
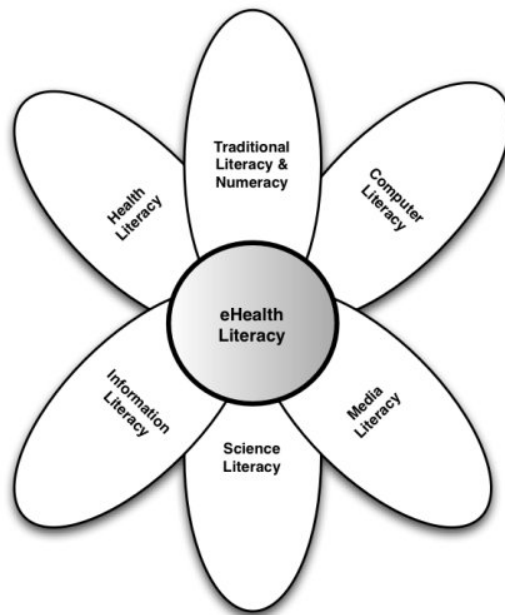
The six literacies are further broken down into two central types: analytic and context-specific. The analytic types of literacy include traditional literacy, media literacy, and information literacy. The analytic component encompasses skills that are applicable to a broad range of topics or contexts. The context-specific types of literacy include

computer literacy, scientific literacy, and health literacy. As compared to its analytic counterpart, the context-specific component can only be contextualized and applied to a specific problem, circumstance, or situation.

Traditional literacy. Based on the National Literacy Act of 1991, traditional literacy consists of "an individual's ability to read, write and speak in English, and compute and solve problems at a level of proficiency necessary to function on the job and in society, to achieve one's goals, and develop one's knowledge and potential" (Kirsch et al., 1993, p. 3). Norman and Skinner (2006) argue that in spite of the use of multimedia features such as still images, video and audio on the Web, they still contain a large text-based component that users need to understand in order to obtain e-health resources.

Media literacy. Norman and Skinner (2006) describe media literacy as "a skill that enables people to place information in a social and political context and to consider issues such as the marketplace, audience relations, and how media forms in themselves shape the message that gets conveyed" (p. e9). In order to find online health information, users need to develop the cognitive and critical thinking skills necessary to truly assess and evaluate information online, especially with the sheer amount of information that is readily available online on a daily basis.

Information literacy. The American Library Association (1989) defines information literacy as "how knowledge is organized, how to find information, and how to use information in such a way that others can learn from them." The information literate person would be able to locate the appropriate online resources to find information on a specific health topic, utilize the correct search strategies, and can filter

through large amounts of information to find exactly what they need (Norman & Skinner, 2006).

Computer literacy. Logan's (1995) very simple and broad definition of computer literacy describes it as "the ability to use computers to solve problems." Users need to consider the variety of options that are available in terms of computer technology, such as hardware and software, and be able to confidently utilize different computer systems in order to find health information. According to Norman and Skinner (2006), a person could never become fully computer literate without quality access to computers and current information technology.

Scientific literacy. A broad conceptualization of scientific literacy is an understanding of the nature, aims, methods, application, limitations, and politics of creating knowledge in a systematic manner (Laugksch, 2000). Science literacy is a component of e-health literacy because all health information is driven by science; users need to understand the process of how health information is scientifically discovered, and the various opportunities and limitations that come along with that scientific discovery (Norman & Skinner, 2006).

Health literacy. As previously discussed, health literacy consists of "the cognitive and social skills that determine the motivation and ability of individuals to gain access to, understand, and use information in ways that promote and maintain good health" (Nutbeam, 2000, p. 263). Without the basic skills to successfully function in daily life and navigate the health system (Bernhardt, Brownfield, & Parker, 2005), users would never be able to translate that knowledge to the online space.

Sexual Health

To better situate the health context surrounding this study, the literature on sexual

health and sexual health promotion will be discussed. In this section, sexual health will be

defined, a brief history of sex and public health will be delineated, and the notion of

sexual health promotion and education will be further explained.

Defining Sexual Health

Over the span of three decades, the concept and understanding of "sexual health"

has evolved and changed, partially due to a series of political, social, and historical

events, including the 1960s sexual revolution, the fight over reproductive rights and

abortion, and the devastating spread of HIV/AIDS (Edwards & Coleman, 2004). The first

internationally accepted definition of sexual health was published by the World Health

Organization (WHO) in 1975 following a technical consultation held in Geneva on the

field of sexology: "Sexual health is the integration of the somatic, emotional, intellectual

and social aspects of sexual being, in ways that are positively enriching and that enhance

personality, communication, and love*"* (p. 6). However, this definition was later rejected,

as critics claimed that a definition of sexual health was not feasible due to the fact that it

attempted to establish norms for something that is a constantly shifting phenomenon

(Edwards & Coleman, 2004). It wasn't until the Sexuality Information and Educational

Council of the United States (SIECUS) convened in 1995 that defining sexual health

once again was brought to the table, sparking subsequent discussions and more

definitions (See Table 2).

There are several similarities across all of the definitions that have been proposed.

First, all of these definitions of sexual health state the importance of sexual information

and the right of pleasure (Edwards & Coleman, 2004). In addition, three elements have remained constant throughout the definitions: (1) individuals should have the capacity to enjoy and control sexual behavior based on some personal ethic; (2) individuals should be free from fear, shame, guilt, and other false beliefs inhibiting sexual expression; and (3) individuals should be free from disease that interfere with sexual function (Edwards & Coleman, 2004; Mace, Bannerman, & Burton, 1974). Education about sexual development and reproductive health, as well as the notion of respect for sexual relationships, has also been found to be important components of the proposed definitions (Edwards & Coleman, 2004; WHO, 2012).

Sex and Public Health: A Brief History

The 19th century sparked the beginning of taking sex and sexuality as a public health issue, as the ruling class saw public health as a way to enact social policies (Giami, 2002). At this time sex was seen as an activity regulated for procreation between a monogamous married couple (Acton, 1865), and problems such as prostitution, masturbation, same-gender sex, venereal diseases, and pregnancies out of wedlock were seen as serious risks to the "natural sexual act" (Barker-Benfield, 1983; Corbin, 1978; Mort, 2000).

By the 1920s, the Women's Rights Movement led to a push for sexual freedom and reproductive rights as well, and women began to advocate for free access to contraception and abortion (Giami, 2002). With the development and marketing of the contraceptive pill, women began to see the benefits of the sexual experience independent of procreation, leading to the "second contraceptive revolution" (Leridon, Charbit, Collomb, Sardon, & Toulemon, 1987). The female orgasm became a topic of discovery,

43

and women were finally free to distinguish between sexual activity and reproducing (Masters & Johnson, 1966).

The HIV/AIDS epidemic in the 1980s launched a huge increase in studies dedicated to sexual health, specifically in terms of homosexual behavior, anal practices, and multiple partner situations (Giami, 1996). With public health at the forefront, health promoters were unsure of how to tackle the HIV/AIDS problem without sacrificing one's right to sexual privacy. This led to two conflicting positions in terms of how to handle the issue, with one side contending that minority sexual cultures be respected with preventive strategies developed accordingly, and the other, more conservative side arguing for abstinence-only education and monogamous marital intercourse as the only way to prevent HIV infection (Giami, 2002).

Most recently, disorders such as erectile dysfunction (ED) have brought sexual health issues to the forefront of public health problems, which could be due to the increasing openness and commercialization of sexuality in the media (Wellings, 1996). The example of ED demonstrates how sexual disorders can now be seen as legitimate "diseases" that call for special treatments (Giami, 2002). The U.S. Food and Drug Administration's (FDA) new guidelines on direct-to-consumer advertising released in 1997 added another element to the issue by making the selling of ED remedies and other sex-enhancing drugs more readily available to consumers.

Sexual Health Promotion and Education: A Call to Action

The rich, dynamic history of sexual health and its various social, political, and cultural implications call for more enhanced strategies to educate publics and address sexuality problems (Coleman, 2002). Though there have been efforts made, more needs

to be done in terms of advancing a national dialogue surrounding sexuality and sexual health. As stated in the Institute of Medicine report, *No Time to Lose: Getting More from HIV Prevention* (IOM, 2000, p. 100):

> Society's reluctance to openly confront issues regarding sexuality results in a number of untoward effects. This social inhibition impedes the development and implementation of effective sexual health and HIV/STD education programs, and it stands in the way of communication between parents and children and between sex partners. It perpetuates misperceptions about individual risk and ignorance about the consequences of sexual activities and may encourage high-risk sexual practices. It also impacts the level of counseling training given to health care providers to assess sexual histories, as well as providers' comfort levels in conducting risk-behavior discussions with clients. In addition, the "code of silence" has resulted in missed opportunities to use the mass media (e.g., television, radio, printed media, and the Internet) to encourage healthy sexual behaviors.

In an effort to address this problem strategically, the Pan American Health Organization (PAHO) Regional Office of the WHO worked in tandem with the World Association for Sexology in 1999 to create five overarching goals to promote sexual health: (1) promote sexual health, including the elimination of barriers to sexual health; (2) provide comprehensive sexuality education to the population at large; (3) provide education, training, and support to professionals working in sexual health related fields; (4) develop and provide access to comprehensive sexual health care services; and (5)

promote and sponsor research and evaluation in sexuality and sexual health, and the

dissemination of the knowledge derived from it (Coleman, 2002).

To further expand on these strategies, U.S. Surgeon General David Satcher

unveiled *The Surgeon General's Call to Action to Promote Sexual Health and

Responsible Sexual Behavior* (U.S. Surgeon General, 2001) in which he covered three

fundamental areas that could help provide a starting foundation toward promoting sexual

health. The first, increasing awareness, called for a national dialogue on sexual health and

responsible sexual behavior that could take place in the home, in schools, churches, or

other community settings; and providing access to education that includes both

abstinence and safer sex options. The second, providing health and social interventions,

called for eliminating disparities in sexual health status; targeting socioeconomically

vulnerable communities; improving access to sexual health and reproductive health

services; proving adequate training in sexual health; and ensuring the availability of

programs that promote awareness and prevention of sexual abuse and coercion. The final

area, investing in research, called for the promotion of basic research on sexual health

issues; the development of evaluation of sexuality education; and the expansion of

evaluation efforts for sexuality-based interventions (p. 13-15).

Principles of Effective Sexual Health Promotion and Education

As with other health-related promotion programs and interventions, sexual health

promotion is most likely to be effective when it is based on theory and evidence

(Bartholomew et al., 2001; Glanz, Rimer, & Lewis, 2002). Social cognitive theories in

particular are useful tools to determine variables of decision-making and goal enactment

needed in sexual health promotion (Schaalma et al., 2004; Sheeran et al., 1999).

However, these theory-based approaches should also work to move individuals toward behavior change, as Schaalma et al. (2004) argue that increasing awareness and knowledge alone do not prevent individuals from taking unnecessary sexual risks. Sexual health practices in particular require the development of specific social skills, such as consistent condom use (Sheeran et al., 1999). In addition, other "life skills" needed when promoting safer sex behaviors include decision-making, open communication, and negotiation skills (Kirby et al., 1994).

Because of the action-oriented nature of sexual health, successful interventions have included methods such as discussion groups, planning exercises, scenario building, videos, and role playing (e.g., Abraham, Wight, & Scott, 2002; Jemmott, Jemmott, & Fong, 1992; Schaalma & Kok, 2001). By allowing participants to anticipate and rehearse typical sexual encounters and social interactions, they can become more sensitized to situational and social cues, including nonverbal behavior, so that they are more familiar with what to do in risky situations (Schaalma et al., 2004). Not only are they able to observe and model peers' effective behavior (Bandura, 1977) but they are also increasing levels of self-efficacy (Bandura, 1997) – an essential component toward healthier sexual practices.

Another element inherent in successful sexual health promotion programs is the ability to teach individuals to resist social pressure (Schaalma et al., 2004). In one example, Schaalma et al. (1996) developed verbal scripts as part of the *Long Live Love* program in the Netherlands to negotiate safe sex and condom use, by having participants (1) say what you want; (2) present arguments; (3) stick to your view; (4) present alternatives; (5) provide counterpressure, and, if this does not work; (6) walk away. By

offering concrete ways to discuss sexual activity, individuals are more inclined to have these kinds of discussions before they experience severe consequences such as relationship breakdown, STDs, and unwanted pregnancies (Panchaud et al., 2000; Singh & Darroch, 2000).

In terms of sex education in the classroom, the United States is sorely lacking as compared to other countries – some public school districts do not require sex education, others have mandated abstinence-only programs, and only a minority of public schools require comprehensive sex education that includes information about contraception and condom usage (Guttmacher Institute, 2012). However, in the schools that offer sex education, teachers' views and values play an integral role in how effective the curriculum will be. According to Paulussen, Kok, and Schaalma (1994), teachers were less willing to adopt a sex education curriculum and have lower levels of confidence delivering the curriculum if they held conservative moral beliefs. Teachers also were reluctant to implement key activities, such as condom demonstrations and role-playing, for fear that they would lose control of their classrooms and/or cause anxiety and embarrassment (Paulussen et al., 1994; Schaalma et al., 2004). Therefore, adequate training and explanation of curriculum materials is necessary in order to boost the confidence of teachers, and allow for them to discuss sexual health comfortably with their students (Buston, Wight, Hart, & Scott, 2002).

Finally, sexual health promotion and intervention programs should work to change policy and move the political agenda toward better initiatives for sexual health. Schaalma et al. (2004) proposed a series of steps that sexual health promoters can currently take in the United States. First, needs assessments should be conducted to better

understand the current state and landscape of sexual health practices, especially with young people. Second, they should target key influencers and opinion leaders who have the power, resources, and networks to potentially change the policy context in which sex education and promotion is designed. Lastly, health promoters should work alongside with parents to fight for more comprehensive sex education, through creating community empowerment programs that move parents to action.

Key Examples of Sexual Health Campaigns and Interventions

The following are examples of successful sexual health campaigns, programs, and/or interventions. Each example will be discussed in terms of an overview, target audience, objectives/strategies/goals, program components, theories used, and evaluation. By discussing these key examples, both communicators and scholars can get a sense of what constitutes a successful sexual health campaign, and the measures needed to determine what makes a sexual health campaign an overall success.

Bedsider. On November 10, 2011 The National Campaign to Prevent Teen and Unplanned Pregnancy worked in collaboration with The Ad Council to launch a 3-year multimedia public service campaign designed to reduce the rates of unplanned pregnancy. The objective of the campaign was to reduce high rates of unplanned pregnancy among young women (18-24) in the U.S. by encouraging them to find the best method of birth control for them, and use it more carefully and consistency (Ad Council, 2011). Components of the campaign included PSAs and advertisements that used an explicit humor appeal, a Facebook page that included a "Confessions app" where young adults can share their "sex fail" stories, and a Twitter page that utilized hashtags such as #sexfail and #dontgiveup. The campaign was first pilot tested with 750 women in three

Planned Parenthood clinics in South Florida, where over 80 percent said the program

made them more careful about birth control and less inclined to have unprotected sex

(The National Campaign to Prevent Teen and Unplanned Pregnancy, 2011).

In terms of the theories used, Bedsider used the transtheoretical model

(Prochaska, Redding, & Evers, 2005) to move the campaign through three phases. In

Phase One, the *preparation phase*, the campaign worked on increasing awareness of

messages and driving people to the website. In Phase Two, the *initiation phase*, the

website was offered as a means of obtaining information and services. Finally, in Phase

Three, the *maintenance phase*, the campaign worked to maintain loyalty to the website

and the information and services offered. By using this model, Bedsider hoped to move

women from the preparation to action stage through reinforcing good actions (Swaider,

2011). For evaluation purposes, Bedsider collected data on the types of users logging

onto the website. They found that 44 percent of users were either White or Latino, and 10

percent were African American. In terms of the perceptions of the website, 80 percent

said that "it has information that I haven't been able to find elsewhere"; 76 percent said

that "it's available anytime I need"; 75 percent said that "it has information that I'm

interested in"; 74 percent said that "it has tools that will be helpful"; and 73 percent said

that "it's easily accessible to me since it's online" (Swaider, 2011).

Making Proud Choices! This community-based program stresses that abstinence

is the best way to prevent HIV, other STDs, and unwanted pregnancy, but that condoms

are an effective method as well. It was designed to increase knowledge about HIV, other

STDs and teen pregnancy among African Americans, Hispanic, and White adolescents

ages 11-13 (National Campaign to Prevent Teen and Unplanned Pregnancy, 2007a). The

program was designed to be implemented in middle schools and youth-serving community based organizations. The goal of Making Proud Choices! is to reduce the risk of HIV/STDs and pregnancy among youth, by way of sharing knowledge about HIV/STD and pregnancy prevention, teaching better negotiation skills, and enforcing less risky behaviors (National Campaign to Prevent Teen and Unplanned Pregnancy, 2007a).

The program can either be implemented in two four-hour sessions or eight one-hour sessions and is comprised of four components that make up eight lessons total in the curriculum: (1) helping teens define their goals and consider how having sex could prevent them from achieving those goals; (2) increasing knowledge about HIV/STDs and pregnancy; (3) discussing attitudes towards abstinence, HIV/STDs and pregnancy; and (4) teaching skills for negotiating condom use (National Campaign to Prevent Teen and Unplanned Pregnancy, 2007a). Jemmott, Jemmott, and Fong's (1998) evaluation of the program took place in three Philadelphia middle schools in low-income communities over the course of a year. By using a random assignment experimental design, the researchers tested whether condom use increased after completing the program. Results showed that program participants reported a higher rate of condom use, as well as a lower frequency of sexual intercourse among those students who were sexually active. Participants also were less likely to have unprotected sex as a result of completing the program.

Becoming a Responsible Teen (BART). The primary purpose of BART is to educate African American youth (14-18) on HIV and pregnancy prevention. Its goals include helping participants clarify their values regarding sex and enhance their communication, negotiation, and problem-solving skills (National Campaign to Prevent

Teen and Unplanned Pregnancy, 2007b). The program is implemented in eight sessions lasting approximately 90-120 minutes each. Four elements make up the curriculum: (1) youth receive information about HIV/AIDS risk; (2) youth are trained to use their knowledge about HIV/AIDS to act on their own behalf; (3) role-playing is used to enhance the teens' communication skills so they can better navigate high-risk situations; and (4) BART reinforces positive behaviors so they would become the norm within the teens' social circles (National Campaign to Prevent Teen and Unplanned Pregnancy, 2007b).

BART is based on both social learning theory (Bandura, 1977) and self-efficacy (Bandura, 1997). Through role-playing sessions participants are exposed to alternative behaviors that they can model, a tenant of social learning theory. In terms of self-efficacy BART defines the concept as the capacity for participants to believe they can prevent HIV transmission through either abstinence or condom usage. The evaluation of BART utilized an experimental design, with 246 low-income, African American youth from Jackson, Mississippi being placed in either a treatment or control group. Results of the evaluation showed that participants were more likely to report using condoms immediately following the intervention (83%) than those in the control group (62%) (National Campaign to Prevent Teen and Unplanned Pregnancy, 2007b; St. Lawrence et al., 1995). In addition, youth who were not sexually active at the onset of the intervention were less likely to initiate sexual activity (12%) compared to the control group (31%) (National Campaign to Prevent Teen and Unplanned Pregnancy, 2007b; St. Lawrence et al. 1995).

Keepin' it R.E.A.L. Aimed to serve primarily African American youth aged 11-14 and their mothers, the Keepin' it R.E.A.L. program is a community-based intervention whose goal is to promote the delay of sexual intercourse among teens and enhance communication about sex between mothers and their teen children (National Campaign to Prevent Teen and Unplanned Pregnancy, 2007c). The implementation of the program includes mothers and adolescents meeting seven times over a 14-week period, with each session lasting two hours. There are two types of HIV prevention interventions within the program. The first, based on social cognitive theory (Bandura, 1988) empowers mothers to support their teens' efforts in developing HIV risk-reduction behaviors (Dilorio et al., 2002). The second, based on problem behavior theory (Jessor, 1987) focuses on discouraging harmful behavior, fostering familial relationships, and encouraging pro-social activities that replace risky behaviors (Dilorio et al., 2002).

The experimental evaluation of Keepin' It R.E.A.L. included 582 adolescents and 470 mothers from the metropolitan regions of Atlanta, Georgia, who participated in follow-up research for two years following the intervention. Results showed that adolescents who participated in the intervention felt more confident saying no to sex. However, over the two years, the number of adolescents who initiated sexual intercourse also increased over time. In addition, the mothers who participated in the evaluation felt more confident and efficacious about speaking with their teen about safe sex practices.

The Mpowerment Project. Designed and implemented by a "Core Group" of 10-20 young gay men with input from a Community Advisory Board composed of "elders" from the AIDS, public health, gay and lesbian, and university communities, the Mpowerment Project is an community-based HIV prevention intervention focused on

reducing sexual risk behaviors among young gay/bisexual men (Kegeles, Hays, & Coates, 1996; Mpowerment project, 2009). The theories used to develop the Project include peer influence (Cohen, 1983) and diffusion of innovations (Rogers, 2003), which posit that individuals are more likely to adopt a new behavior when it is deemed favorable by influential parties (CDC, 2009).

Kegeles et al.'s (1996) evaluation of the Project took place over eight months in Eugene, Oregon. Three hundred young gay men were surveyed pre- and post-intervention. Results from the evaluation showed that the proportion of men engaging in unprotected anal intercourse decreased from 41 to 30 percent following the intervention. The rate of anal intercourse also decreased from 20.2 to 11.1 percent with non-primary partners and from 58.9 to 44.7 percent with boyfriends. The researchers concluded that reaching risk-taking young gay men involves creating HIV prevention activities that are embedded in social activities and community life.

Summary. These key examples discussed have several components in common that may have contributed to the success of the campaign/intervention. First, several of these examples utilized a theoretical framework to guide the intervention, which further emphasizes the need to use theory in sexual health work. Secondly, these campaigns/interventions are targeting a younger audience, which promotes the need to reach out to this particular group, especially when it comes to attempting to change sexual behaviors. Third, these interventions are designed to teach some sort of skill set when it comes to sexual health, whether it is communication skills or negotiation skills. Finally, several of these campaigns/interventions had set goals that they accomplished

through their program, which included outcomes such as increase in condom usage or delayed sexual intercourse.

Using the Internet for Sexual Health Promotion and Education

Compared with the general U.S. population, young adults are the most frequent Internet users, with up to 95 percent of users under the age of 25 using the Internet at least once a month (Athow, 2007; Jones, 2002). In particular, young people turn to the Internet to learn about topics that they would feel uncomfortable discussing with a parent or adult (Gray et al., 2002) Therefore it is no surprise that sexual health is one of the most common health topics that young people search for on the Internet (Baxter et al., 2008; Borzekowski & Rickert, 2001; Escoffery et al., 2005), making it even more imperative for sexual promoters to use this channel to disseminate sexual health messages. Noar, Black, and Pierce's (2009) meta-analysis of computer technology-based HIV prevention interventions found that they have efficacy rates similar to more traditional human-delivered interventions. However, Keller and Brown (2002) discussed several advantages and disadvantages communicators should consider when deciding to develop an online intervention.

Advantages. First of all, the presence of sexual health information on the Internet is useful for young people who are in need of information. A report by the Guttmacher Institute (2012) found that 84 percent of U.S. teens had received formal instruction about abstinence, but the majority of sexually active teens are not receiving instruction about contraception. For many students, abstinence-only education is the only source of sex education they are receiving, and many turn to the Internet to find answers to questions their curricula simply do not cover. Another advantage of using the Web for sexual health

campaigns is the ability for open communication, as users are interacting directly with computers as opposed to people, allowing for them to respond to sensitive questions willingly and openly without any fear, shame, or embarrassment (Fotheringham et al., 2000).

Additionally, the Internet can be seen as a "hyperpersonal communication" tool (Walther, 1996), where information can have an interpersonal appeal and personal relevance to users but also maintains a broad reach to multiple segments of people. By combining both the broad mass communication channels with the more interpersonal, persuasive appeals, information can be disseminated both synchronously and asynchronously across geographical and temporal boundaries (Lustria, Brown, & Davis, 2007; Cassell, Jackson, & Cheuvront, 1998). Internet-based interventions can also use tailoring methods as one main way to engage young audiences into believing information is customized to their needs (Bennett & Glasgow, 2009; Brug, Oeneme, & Campbell, 2003; Gans et al., 2009; Glasgow, 2010; Saperstein, Atkinson, & Gold, 2007). Furthermore, the immediacy of information for users is readily apparent, as young adults are competent in searching for what they need, locating general sexual health information easily (Buhi, Daley, Fuhrmann, & Smith, 2009).

Another important factor to consider when designing sexual health Internet-based interventions is whether or not it helps facilitate personal decision-making in terms of assessing sexual risks. By offering some sort of personal risk assessment, users can evaluate the different consequences and outcomes that come with personal experience (Keller & Brown, 2002). Finally, the online space can provide a forum for social support – a definite benefit especially when it comes to sexual health issues and problems. Some

56

advantages proposed by Wright, Johnson, Bernard, and Averbeck (2011) include having access to multiple perspectives, collective expertise of participants, anonymity/reduced stigma, similarity of participants, and convenience.

Disadvantages. One of the biggest challenges of using the Internet for sexual health promotion is the abundance of competing information that may be unverified or sometimes simply inaccurate (Eng, 2001; Morahan-Martin, 2004). However, this is the expected reality, so as the number of online health applications increase, so does the volume and scope of health-related data on Web, which calls for program developers and professionals to assess issues of privacy, confidentiality, and security. Sexual health program developers and professionals need to pay special attention to this issue, to ensure that personal information remains secure and confidential (Keller & Brown, 2002).

Another limitation of Internet-based interventions is the increasing use of software such as Cyber Patrol to block information on library and school computer systems. Since these programs use key word searches to block sexually explicit or sensitive information, this may also block sexual health sites as well (Hafner, 1998). Finally, the Internet is simply not accessible to all young adults, particularly those in low socioeconomic areas, runaways, and the homeless. Sexual health promoters should work to increase the accessibility of information, which is more than just providing computer hardware and Internet access to hard-to-reach populations. Increasing access should also include working to increase the usability of the Web for health information, by offering tools to increase online literacy, technical assistance, and multi-media interfaces with easier to understand graphics and sound files (Eng, 2002).

Studies of interventions. Although online interventions in the realm of sexual health is still a fairly new phenomenon, a number of evaluations have been conducted in terms of measuring the effectiveness of using Web-based tools for education and promotion.

Downs et al. (2004) utilized a longitudinal randomized design to evaluate the impact of an interactive video aimed to reduce teen girls' STD risk. Three hundred urban adolescent girls were tested in terms of (1) knowledge about STDs; (2) self-reported sexual risk behavior; and (3) STD acquisition. There were two control groups in addition to the video intervention; one taught the same content in book form, and the other used commercially available brochures. Follow-up sessions were conducted one, three, and six months following the initial interventions. Results revealed that the girls assigned to the interactive video were significantly more likely to abstain from sex and experience fewer condom failures in the first three months following the intervention. In addition, girls in the interactive video group were also significantly less likely to report being diagnosed with an STD six months after participating in the intervention.

Kiene and Barta (2006) conducted a randomized trial with 157 college students to test the effectiveness of a computerized HIV/AIDS risk reduction intervention aimed toward increasing HIV/AIDS preventive behaviors. Participants completed a baseline assessment of HIV prevention knowledge, motivation and behavior, attended two computer-delivered intervention sessions, and completed a follow-up assessment. Results revealed that participants assigned to the computer intervention were more likely to keep condoms available and displayed greater condom-knowledge at the follow-up

assessment. In addition, participants who were already sexually active reported significantly increasing condom use.

Roberto, Zimmerman, Carlyle, and Abner (2007) recruited 326 high schoolers in two rural Appalachian schools to serve as participants for an computer- and Internet-based intervention designed to reduce the risk of unwanted pregnancy, STDs, and HIV/AIDS in rural adolescents. A pretest-post-test control group design using random assignment was implemented. Results of the intervention demonstrated that students in the experimental condition were less likely to initiate sexual activity and had greater general knowledge, greater condom negotiation self-efficacy, and more favorable attitudes toward abstinence as compared to the control group.

Theoretical Foundation

This final section of the literature review will discuss the two theoretical frameworks for this study: the health belief model and the situational theory of problem solving. I will then make an argument for the integration of the two theories and propose a new theoretical model that will guide the data analysis in this study.

Health Belief Model

There are a number of sexual health studies that have used the health belief model (HBM) as a guiding theoretical framework (e.g., Hounton, Carabin, & Henderson, 2005; Lin, Simoni, & Zemon, 2005; A. S. Oyekale & T. O. Oyekale, 2010). Because the variables of HBM can be so easily applied to sexual health, it will also serve as one of the overarching theoretical frameworks for this study. Therefore, the history of HBM will be

discussed, along with an explication of its concepts. Finally, HBM will be described in connection to sexual health, drawing from key examples found in the literature.

History of HBM

The Health Belief Model (HBM) was originally developed in the 1950s by a group of social psychologists in an attempt to determine why individuals were failing to participate in preventative programs offered by the U.S. Public Health Service, particularly for tuberculosis (Hochbaum, 1958). It was later used to measure patients' responses to symptoms (Kirscht, 1974), as well as to determine patients' compliance with medical regimens (Becker, 1974). Since its development, HBM has become one of the most commonly used theories in health education and health promotion research and practice (Glanz, Rimer, & Lewis, 2002).

Key Concepts in HBM

The basic premise of HBM is based on psychological and behavioral theory and depends on two factors: (1) that individuals have a desire to avoid illness (of if they are already ill, the desire to get better); and (2) that individuals embody the belief that a specific health action will prevent (or ameliorate) the illness (Janz & Becker, 1984, p. 2).

There are four key concepts that serve as the main theoretical constructs of the model: perceived severity, perceived susceptibility, perceived benefits, and perceived barriers. The two factors of severity and susceptibility consist of the individual's perception of the disease or health condition. The next two factors, benefits and barriers, are more concerned with the individual's perceptions of the target behavior that would work to reduce the likelihood of the negative health outcome from occurring. As the

theory has developed other mediating factors have been included: cues to action and self-efficacy.

Perceived susceptibility. Perceived susceptibility deals with an individual's subjective perception of his/her vulnerability to the particular health problem (Janz & Becker, 1984). According to HBM, a person is less likely to act on a desired behavior if they feel that the health problem is unlikely to afflict them, sometimes enacting unhealthy behaviors (Carpenter, 2010). Health promoters and educators can increase perceived susceptibility by personally referencing the audience member (i.e., using "you" and "your" in messages) or by using spokespeople that allow audiences to vicariously experience the threat as someone similar to them (Murray-Johnson & Witte, 2003). When perceived susceptibility is combined with perceived severity, it results in perceived threat (Stretcher & Rosenstock, 1997). The individual must assess whether or not the threat is a harmful and if there is a likelihood that they will experience the harm, which could then lead to behavior change (Murray-Johnson & Witte, 2003).

Perceived severity. The notion of perceived severity deals with the individuals' belief that not acting on preventing the health problem leads to severe consequences. Individuals will evaluate whether not taking action leads to both medical/clinical consequences, such as pain, disability, and/or death, and social consequences, such as loss of job, family struggles, or strained relationships (Janz & Becker, 1984). If a person does not perceive the health threat to be serious, then they will no longer consider processing the message (Murray-Johnson & Witte, 2003). Health promoters and educators should work to create perceptions of moderate perceived severity, as it improves audiences' attention to messages and heightens their motivation for self

protection against the health problem (Witte, 1998). This is usually done through message features such as statistics, graphics, personal testimonials, and intense and descriptive language (Murray-Johnson & Witte, 2003).

Perceived benefits. The third concept, perceived benefits, posits that the individual must believe that engaging in the preventive behavior will reduce the threat or provide other positive consequences (Weinreich, 1999). These benefits can range from simply making the individual feel better to actually saving the individual's life. Health promoters and educators must convince audiences that the benefits outweigh the barriers, as listing benefits and making audiences aware of them can serve as a powerful way to move people to action (Murray-Johnson & Witte, 2003). For example, perceived benefits play a large role in getting people to adopt prevention behaviors such as cancer screenings (Frank, Swedmark & Grubbs, 2004; Graham, Liggons, & Hypolite, 2002).

Perceived barriers. Perceived barriers deals with the notion that individuals are less likely to adopt the desired preventive behavior if the costs are too great to them. Barriers are seen as the most significant concept in determining behavior change (Janz & Becker, 1984) and will only move people to action if they believe that the benefits of the new behavior outweigh the consequences of the old one. Individuals evaluate barriers that could include financial costs, physical discomfort, social costs, and/or environmental limitations, as barriers could also be either internal or external (Murray-Johnson & Witte, 2003).

Cues to action. Cues to action have been found to help promote the desired behavior by triggering the decision-making process (Janz & Becker, 1984). They can either be internal (i.e., symptoms, mood, feelings) or external (i.e., interpersonal

interactions, mass media), as they help motivate individuals in appraising the resources necessary to act on a message (Janz & Becker, 1984; Murray-Johnson & Witte, 2003). As the research currently stands, cues to action is the most underdeveloped and understudied concept of the HBM, and is very rarely measured (Janz & Becker, 1984; Rosenstock, 1974; Zimmerman & Vernberg, 1994).

Self efficacy. Rosenstock, Strecher, and Becker added the concept of self-efficacy to the HBM in 1988, defined as one's self-assessment of their ability to adopt the desired behavior (Bandura, 1977). Murray-Johnson and Witte (2003) list three factors that can affect a person's levels of self-efficacy: (1) their perceptions of how their actions reciprocally and dynamically influence and are influenced by the environment; (2) the context in which they feel they can avert the threat; and (3) the extent to which the person lacks knowledge about the behavior, previously failed in attempting to do the behavior, or is inhibited some way by the behavior (p. 481-482).

HBM and its Connection to Sexual Health

There is extant research that has tested various HBM factors when dealing with the context of safer sex and sexual health. In terms of perceived susceptibility, Courtenay (1998) found that college students' perceived susceptibility is rarely linked to actual behavior change. Even though risk for HIV infection is high, students are less likely to perceive themselves to be susceptible and will continue to engage in unsafe sex behaviors (Lewis, Malow, & Ireland 1997; Yep, 1993). Lack of severity messages in an analysis of 25 AIDS brochures led intravenous drug users to not perceive AIDS as a threat, reducing the effects of the messages (Perloff & Ray, 1991). In terms of perceived barriers, Burak & Meyer, 1997) found that college-aged women are less likely to get a Pap test because

of fear and embarrassment. Finally, entertainment-education research focusing on disseminating contraceptive information found that using vivid external cues to action such as music videos, T-shirts, posters, calendars, and cards helped promote sexual responsibility (Kincaid, Coleman, Rimon, & Silyan-Go, 1991; Singhal & Rogers, 2000).

In addition, a handful of studies have been conducted that has used the HBM factors to focus on HIV/AIDS infection (Hounton, Carabin, & Henderson, 2005; Lin, Simoni, & Zemon, 2005; A. S. Oyekale & T. O. Oyekale, 2010). These studies were all based on survey data and emphasized the factors of perceived severity and perceived self-efficacy in terms of preventive measures such as condom use and HIV testing.

Hounton, Carabin and Henderson's (2005) study explored condom use in Benin, West Africa. The scholars found through a cross-sectional survey that 94 percent of respondents had a high-perceived risk of contracting HIV. However, these same respondents also had a low-perceived efficacy of condom use as a preventive measure, with only 37 percent of respondents feeling that condoms protected them from infection. Lin, Simoni and Zemon's (2005) study found similar results, based on an online survey of Taiwanese students. Out of the respondents, two-thirds have had sexual intercourse. However, these respondents felt less self-efficacy for using a condom, despite recognizing HIV/AIDS as a highly severe risk.

Lastly, A.S. Oyekale and T.O. Oyekale (2010) focused on HIV testing among Nigerian youth. Using data collected as part of the National Living Standard Survey (NLSS), the authors explored youth's participation in conducting an HIV test. They found that in spite of a high awareness of the dangers of HIV, the respondents engaged in

low preventive measures, including condom usage. Additionally, only 3.34 percent of the youths surveyed have been tested for HIV.

Situational Theory of Problem Solving

As an audience segmentation theory, a number of studies have used the situational theory of publics (STP), the predecessor of STOPS, in the context of health campaigns (Grunig & Ipes, 1983; Grunig & Childers, 1988; Vardeman, 2005; Vardeman & Aldoory, 2008). However, STOPS, which is an extension of STP, has yet to be utilized in a campaign context, let alone an online sexual health campaign context. Because STOPS is a useful theory in determining how active a particular public can be in terms of information seeking, it will serve as an additional theoretical framework for this study. Therefore, the history of STOPS will be discussed, starting with a discussion of STP, the predecessor of this theory, with an explication of its variables. Then STOPS will be discussed in terms of how it extends the former iteration of the theory and the new set of variables and constructs that have been added. Finally, studies that have utilized STP/STOPS in a health communication context will serve as examples of how the theory has been used.

Situational Theory of Publics

The situational theory of publics (STP; for an intellectual history and a comprehensive list of research studies on STP, please see Grunig, 1997) is a theory that utilizes three independent variables and two dependent variables to determine publics' communication behavior. The three independent variables (i.e., problem recognition, constraint recognition, level of involvement), and two dependent variables (i.e., active communication, passive communication) help determine "why people engage in a

behavior and communicate in the process of planning that behavior" (Grunig & Repper, 1992, p. 135).

The first independent variable of *problem recognition* (PR) was taken from Dewey's (1939) notion that publics perceive something lacking in a situation and as a result seek information to try to solve that indeterminate or problematic situation (p. 135). Individuals may either recognize a problem internally from confusion or curiosity, or externally through the environment or social setting. Based on the notion of situations, "analysis of how [people] perceive different types of [problematic] life situations shows when and about what people will communicate" (Grunig & Repper, 1992, p. 135). The second independent variable of *constraint recognition* (CR) deals with publics' perceived self-efficacy about an issue. If an individual believes that he/she cannot personally communicate about problems or execute behaviors to solve that problem, he/she will disregard his/her abilities and will not attempt to change his/her attitudes or behaviors. Finally, the last independent variable, *level of involvement* (LOI), is based on past marketing and communication research and constitutes the "degree of importance or concern" that a product, service, or behavior generates in different individuals (Lovelock & Weinberg, 1984). According to Grunig (1997), level of involvement describes a person's perception of how connected or relevant he/she feels with an issue.

The two dependent variables of active and passive communication behavior can also be known as information seeking and information processing. Information seeking consists of an individual actively scanning the environment in a premeditated manner, in order to discover messages regarding a certain topic or issue (Clarke & Kline, 1974). Information processing, on the other hand, is more passive in that the individual

unexpectedly comes across a message and continuously processes it (Clarke & Kline, 1974).

Categories of publics. Based on these variables, communication practitioners can allocate groups of publics into more active segments or less active ones, depending on their levels of activity. Four different types of publics have been conceptualized as a result in order to help practitioners determine how they should communicate to various groups (Grunig, 1997; Grunig & Hunt 1984):

1. *Non-publics* are publics in which the organization and the publics do not have consequences on one another. Typically, non-publics have no problem recognition and no level of involvement (and the level of constraint recognition, thus, is not relevant). Communicators should not spend any time, money, or resources communicating with this group because these publics' behaviors are significantly unlikely to change around the issue or organization.

2. *Latent publics* are publics in which the organization and publics do have consequences on one another, but there are multiple barriers around the publics' active communication behavior. Typically, latent publics have either high level of involvement, high constraint recognition, but low problem recognition; or high problem recognition and constraint recognition, but low level of involvement. Communicators should conduct education and persuasion campaigns to change the levels of two of the three independent variables, i.e., raising their level of involvement and reducing constraints.

3. *Aware publics* are publics in which the organization and publics do have consequences on one another, but these publics experience a deficiency in one of the independent variables, and therefore, do not actively participate in the issue. Typically, these publics have high problem recognition and high level of involvement but high constraint recognition. Communicators should work to lower constraints in their education and messaging.

4. *Active publics* are publics in which organizations and publics have significant consequences on one another. These publics perform active information-seeking behavior around an issue or organization because they perceive a problem to be an issue, they feel personally involved in the issue, and they perceive little to no constraints in acting around the issue. Communicators should use these publics as assets in a communication campaign to help advocate for change among less active publics. However, the categorization of active publics also includes activist publics that are involved in changing the actions and make-up of an organization or issue because of the negative consequences the activist publics perceive from the organization or issue. In this case, scholars have recommended utilizing negotiation, conflict resolution, and compromise strategies for establishing two-way, symmetrical communication relationships with activist publics (Grunig, Grunig, & Dozier, 2006).

Extending STP: The Situational Theory of Problem Solving

In an effort to extend and generalize STP, situational scholars have developed the situational theory of problem-solving (STOPS; Kim & Grunig, 2011; Ni & Kim, 2009),

which moves from the original theory's narrow focus of perception and information acquisition to a more complex set of concepts dealing with communicative action and motivation. Kim and Grunig (2011) claim that this newly conceptualized theory can be extended beyond public relations research and should be utilized as a more general theory of communication and problem solving.

STOPS variables. The original independent variables of problem recognition, constraint recognition, and level of involvement are retained, but another variable has been added – the *referent criterion*, which is defined as "any knowledge or subjective judgmental system that influences the way in which one approaches problem solving" (Kim & Grunig, 2011, p. 131). In other words, the referent criterion deals with the previously established cognitions about the issue at hand, which can include one's cultural cues and previous experience with the problem. Additionally, a mediating variable of *situational motivation in problem solving* has also been added in STOPS, which determines the extent to which a person wants to further understand a problem. Kim and Grunig (2011) define situational motivation in problem solving as a "state of situation-specific cognitive and epistemic readiness to make problem-solving efforts" (p. 132). They argue that this particular type of motivation is situation focused and goal oriented in nature.

In addition, the dependent variables of information seeking and processing have been extended to include a wider spectrum of *communicative action*, namely, information acquisition, selection, and transmission (Kim & Grunig, 2011). *Information acquisition* is derived from the original dependent variables and consists of active information seeking and passive information attending. *Information selection* refers to the individual's ability

to directly acquire and share information, and is categorized as either active information forefending (where the individual *fends off* information in advance and evaluates its relevance to the problem) or passive information permitting (where the individual accepts any information related to the problem at hand). Finally, *information transmission* can be conducted when the individual either actively forwards information to others (information forwarding), or passively shares information to others at their request (information sharing). Thus, when an individual seeks to solve a problem, their communicative activeness triggers in one of the three domains of information acquisition, selection, and transmission. In turn, the individual will decide whether they would like to be active or passive in their information behaviors, which determines the process in which they will reach problem resolution.

Types of Publics. Kim (2006) took Grunig's (1997) typology of publics and broke them down even further into eight different types of publics, which can help practitioners predict when information about a given problem or issue should be sought or processed, forwarded or shared, and forefended or permitted. Ni and Kim (2009) used this new typology and conducted a series of qualitative interviews to explore how seven of these publics should be classified and how they engage in different communication behaviors:

1. *Closed-situational activist publics* are publics who are engaged in active information acquisition, transmission, and selection. They typically have high level of involvement, high problem recognition, and low constraint recognition, with some sort of referent criterion.

2. *Closed-chronic activist publics* are publics who are engaged in both active information transmission and selection, but only processed information. They typically had high level of involvement and high problem recognition, but mixed internal constraint recognition and low referent criterion.

3. *Closed-situational active publics* are publics engaged in active information acquisition and selection, but not in information transmission. They typically had high level of involvement and high problem recognition with some kind of referent criterion, but high constraint recognition.

4. *Closed-dormant passive publics* are publics who engage in information sharing and forefending, but only processed information. They typically had high constraint recognition, with mixed levels of involvement and problem recognition.

5. *Open-situational activist publics* are publics who engaged in active information seeking and transmission, but not in information selection. They typically had very high level of involvement, problem recognition, with low constraint recognition.

6. *Open-situational active publics* are publics that engaged in information seeking and permitting, but not in information transmission. They typically had mixed levels of involvement, high problem recognition, and high constraint recognition.

7. *Open-dormant passive publics* are publics who engaged in all passive behaviors for information acquisition, transmission, and selection. They typically had a relatively low level of involvement and problem recognition and high constraint recognition.

STP/STOPS and Health

Several studies have used the situational theory of publics in the context of a health or public communication campaign. Grunig and Ipes (1983) discovered that drunk driving campaigns should not only present the issue as a problem to publics, but that they should also offer a sense of self-efficacy and remove constraints that may hinder individuals from engaging in safe behaviors. These behaviors vary according to different publics, as active publics are more likely to hold attitudes and organized cognitions than apathetic publics (Grunig & Ipes, 1983). Grunig and Childers (1988) found that active publics processed AIDS messages cognitively and organized them into schemas, but also concluded that level of education played a factor in the breadth and depth of these cognitive structures. Pavlik (1988) measured how level of involvement and constraint recognition affected the perception of heart disease campaigns and found that low constraint recognition ultimately led to a greater complexity of heart health knowledge.

Vardeman's (2005) master's thesis used STP to determine how women made meaning of cervical cancer campaigns. She found that the variable of involvement might be too simplistic in this particular context, as women's involvement with health messages depends on their culture and the targeted health issue. In another article exploring women's perceptions about information portrayed in media regarding fish consumption, Vardeman and Aldoory (2008) found that STP may vary in its ability to predict information behavior when publics are given contradictory versus consistent information.

Exploring STOPS in a health context has been less frequently studied, however Kim, Shen, and Morgan (2011) used STOPS in their study to determine how to segment the general population into groups that would seek out information about organ donation-

related issues. Their analysis of two survey data sets revealed evidence of a problem chain recognition effect, in which a person who is active about the organ donation issue will more likely perceive similar issues as problematic.

Linking Theory: An Integration of HBM and STOPS

One of the purposes of this study is to develop theory in the area of e-health, a field of study that is in great need of theory development (Buller & Floyd, 2012). Although a number of health communication theories have been applied to the e-health context, there has been virtually little to no theory development in terms of the e-health phenomenon itself. Therefore, this dissertation works to create theory through the combination of the health belief model (Rosenstock, 1974), a widely used health behavior theory, and the situational theory of problem solving (Kim & Grunig, 2011), a relatively new public relations/communication theory with an extensive history. By linking these two theoretical frameworks together, I argue that both public relations and health communication concepts and ideas can work in tandem to help explain online health information seeking situations, as well as the actions that occur as a result of that information seeking. In particular, combining HBM and STOPS is a unique, but wise choice because each theory has similar variables and factors in terms of antecedents, modifiers, mediators, and resulting communicative actions. Merging the two theories can also be useful as each individual theory could also strengthen and inform each other in terms of additional constructs that the other has not addressed.

Additionally, both theories call for more exploration and evaluation. Though HBM has been so extensively used in health education and health promotion research, there is a need for extending this theory to a more digital context. HBM could also

benefit from STOPS' emphasis on communicative behaviors, which is not addressed as explicitly the way the theory currently stands. Furthermore, Kim and Grunig (2011) argue that STOPS can be applied outside of public relations research. By applying it to an e-health setting, this dissertation can determine whether STOPS is appropriate for e-health mostly due to the theory's history of being utilized in health communication research and scholarship. In addition, because STOPS is a relatively new communication theory, more research exploring its various concepts is certainly needed and warranted.

Strengths and Weaknesses of the Theories

Before I could determine how HBM and STOPS fit well together to produce an integrated model, I first explored the various strengths and weaknesses of each theory to better understand the positive and negative attributes that could impact the new model. Furthermore, this exploration helps better demonstrate the lack the nuance of these theories (as well as other communication-based theories) and illustrates the need for integrating various theoretical concepts in order to better depict the complexity of information processing and communicative behavior.

HBM Strengths. Janz and Becker's (1984) review of HBM studies found substantial empirical support for the model. In particular, perceived barriers were found to be the single most powerful predictor across all studies reviewed. Perceived susceptibility and perceived benefits were also important, with perceived susceptibility being a stronger predictor of preventative health behavior and perceived benefits being a stronger predictor for sick-role behavior. Overall, perceived severity was found to be the least powerful predictor, though this strongly correlated with sick-role behavior (Strecher & Rosenstock, 1997). Zimmerman and Vernberg (1994) also found HBM's constructs to

be predictive of behavior. A review of studies and HBM-related interventions found the theory to be especially useful in predicting and framing cancer screening and HIV-protective behaviors (Champion & Skinner, 2008). Furthermore, the simplicity and parsimony of the model has made it a more likely option in terms of developing theoretically based interventions.

HBM Weaknesses. HBM has a number of weaknesses and limitations as well. First, due to its simplicity, several researchers have analyzed the constructs separately versus examining the particular health context with HBM as a whole model (Strecher & Rosenstock, 1997). Failure to do so may result in an incomplete look at how individuals' various combinations of health beliefs allows for changes in health-related behaviors. Second, in a related vein, relationships between constructs need to be tested more thoroughly (Champion & Skinner, 2008). For example, even though perceived threat is made up of perceived severity and susceptibility, there has not been further investigation on how the relationship between severity and susceptibility forms perceived threat. Therefore, researchers should be careful not to utilize severity and susceptibility as separate entities and rather should work to define the connection between the two and how it impacts an individual's level of perceived threat. Further exploring relationships between constructs is an area of future research that is definitely needed and warranted. Third, HBM is limited in that it is a cognitively based model and does not take emotional components of behavior into account (Champion & Skinner, 2008). By including an emotion (such as fear) within the analysis, researchers may be better able to determine why certain relationships between constructs are stronger than others (Rogers & Prentice-Dunn, 1997). Finally, as was previously mentioned, cues to action is a component of

HBM that is often missing from research studies (Janz & Becker, 1984; Rosenstock, 1974; Zimmerman & Vernberg, 1994). More research needs to be conducted to better understand the relative impact of this construct within HBM.

STOPS Strengths. As an extension of the situational theory of publics theory, STOPS was developed in order to address STP's limitations and provide a theoretical framework not just for public relations researchers, but for general communication scholars as well. To build on STP, Kim and Grunig (2011) made several changes that contribute to the theoretical and practical rigor of STOPS. First, STP's original dependent variables of information seeking and information processing has been expanded to a more general dependent variable of communicative action in problem solving that allows researchers to move beyond information acquisition and also take into account information selection and transmission. Second, the explanatory power of STOPS has been further refined by adding the mediating variable of situational motivation in problem solving, which helps increase the theoretical predictive power of the theory. Third, though the independent variables of problem recognition, constraint recognition, and involvement recognition have been retained as situational-perceptual variables, the referent criterion has once again been reinstated in STOPS to allow for cognitive schema and decisional frames to impact communicative action. Fourth, Ni and Kim (2009) proposed a new conceptualization of publics based on STOPS, where they segmented publics based on the history of problem solving, activeness in problem solving, and openness to approaches in problem solving. Finally, STOPS is a useful theory in terms of campaign development and planning, where practitioners can utilize the theory to facilitate information behaviors among groups of publics (Kim & Grunig, 2011).

STOPS Weaknesses. Although the novelty of STOPS has not yet warranted critique from scholars on the limitations of the theory, there have been critiques of its predecessor, STP, which could also be applied to the newer theory. First, a number of scholars have called for STP research to include cultural identity as an antecedent factor that could potentially impact problem recognition, constraint recognition, and/or involvement (Aldoory & Sha, 2007; Sha, 2006; Vardeman & Aldoory, 2008). Both STP and STOPS fail to take into account how an individual's cultural identity can impact their problem solving capacity. Second, there needs to be more qualitative exploration of the STP/STOPS variables (Aldoory & Sha, 2007). Though Ni and Kim (2009) conducted interviews to develop their new typology of publics, to date there has been no qualitative studies further exploring the new STOPS variables to better assist with their conceptualization and operationalization. Through qualitative research, STOPS variables can be more externally valid and useful for further quantitative study such as experiments, another methodology that has been infrequently used with situational theory (e.g., Aldoory, Kim & Tindall, 2010). Finally, as was already referenced by Kim and Grunig (2011), STOPS needs to be studied in other contexts outside of public relations. Future research utilizing STOPS within areas such as government relations, public diplomacy, media relations, business management, and marketing communication could further the applicability and scope of the theory (Aldoory & Sha, 2007; Kim & Grunig, 2011).

The E-Health Information Management Model (E-HIMM)

Based on the overview of the various strengths and weaknesses of HBM/STOPS, as well as taking into account the discussion surrounding the rationale behind integrating

77

the two theories, I am proposing a model that will be explored and tested by this dissertation project. This integrated model, called the *E-Health Information Management Model,* or *E-HIMM* (See Figure 2), combines the variables of HBM and STOPS with additional e-health components to explain and predict how individuals use the online space to recognize a health threat, seek out health information, and share it with others. According to the proposed model, an individual has perceptions and cognitive frames that make up their situational antecedents surrounding a health issue, namely their perceived susceptibility and perceived severity. Based on these antecedents, an individual's level of e-health literacy in terms of understanding and appraising information will impact the modifying factors, starting with whether they have recognized the health issue as a problem worthy of further exploration. Online cues to action, in the form of social media posts, blog posts, online support groups, reminder emails, and/or online disclosure, will also determine whether or not an individual will recognize the health problem. Additionally, the referent criterion, demographic and sociopsychological variables, and the state of online information will also impact an individual's level of problem recognition. These three factors will also collectively impact the model's mediating factors, namely, an individual's constraint and involvement recognition and situational motivation in problem solving. Finally, these factors will determine the likelihood of online communicative behavior: the level of constraint and involvement recognition will impact the level of self-efficacy an individual has toward taking communicative action, which in turn is disseminated via online channels.

Figure 2. The E-Health Information Management Model (E-HIMM)

The E-Health Information Management Model (E-HIMM)
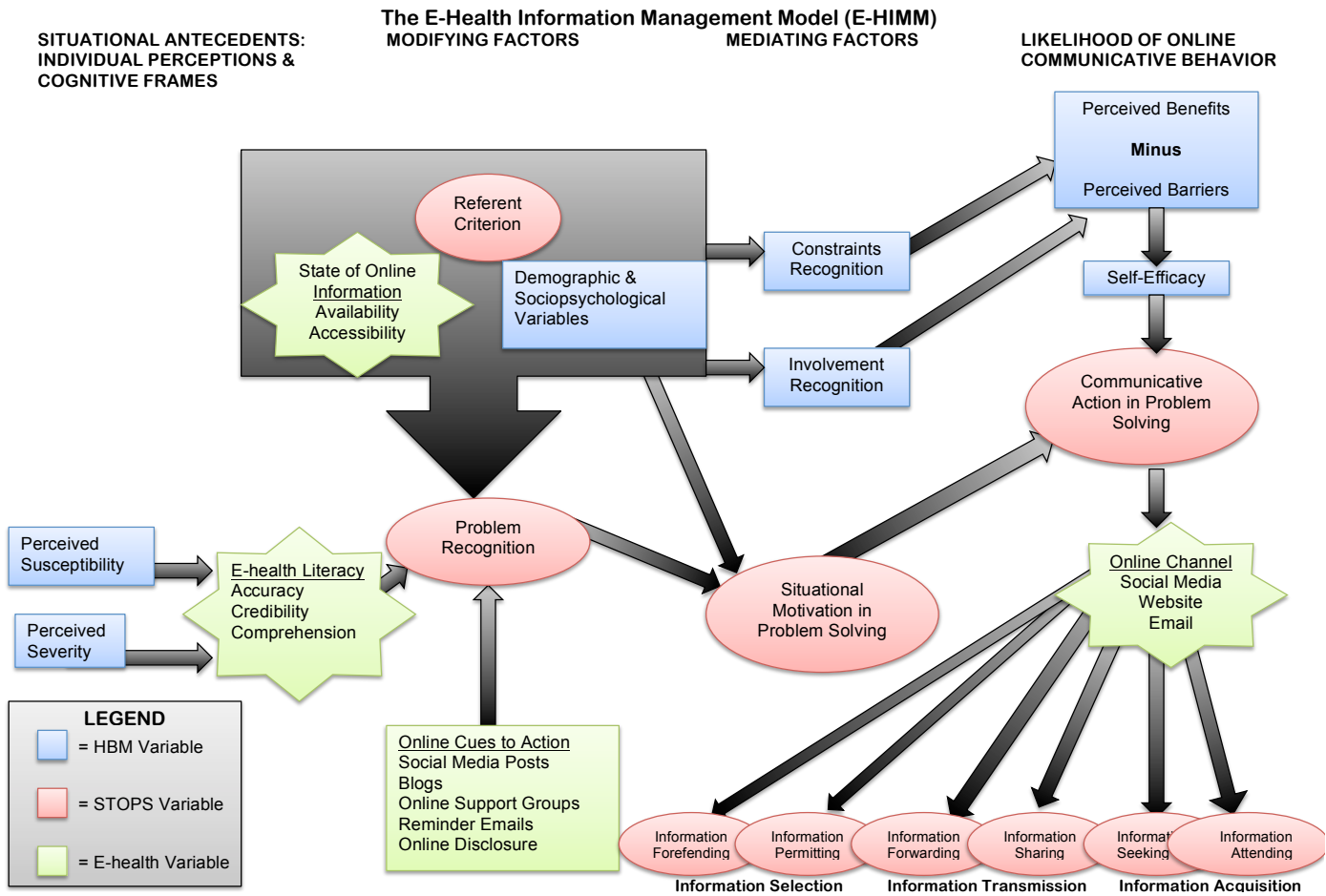
The GYT Campaign

In April 2009 the GYT: Get Yourself Tested campaign was developed as part of It's Your (Sex) Life, a longstanding public information partnership between MTV and the Kaiser Family Foundation, along with the U.S. Centers for Disease Control and Prevention and Planned Parenthood Federation of America. Other national partners include the National Coalition of STD Directors and the American College Health Association.

This broad-based campaign was launched nationwide and used on-air, online and mobile components to spark discussions among young people (<25 years) to communicate with their partners about STDs and testing for the most common STDs, including Chlamydia, Gonorrhea, HPV, Syphilis, Herpes, Hepatitis-B, and HIV. The campaign promoted this cause through celebrity spokespersons, new technologies, community outreach, sweepstakes, and other incentives.

The mission of GYT is as follows: "the GYT campaign is a youthful, empowering social movement to reduce the spread of STDs among young people through information; open communication with partners, health care providers, and parents; and testing and treatment as needed" (About GYT, 2011). In its first month alone, the campaign helped fuel a 25 percent increase in STD testing at Planned Parenthood clinics nationwide (Hoff, Mishel, & Binns, 2010). The website saw more than 270,000 unique visitors, with more than 400,000 streams of GYT videos in April 2009 (Rzepka, 2010). Process and outcome evaluation efforts by the CDC in 2009 found promising results: 12 percent of youth had heard of the campaign and another 8 percent repeatedly went to get tested because of the GYT campaign (Friedman, McFarlane, Habel, Gardner, & Kachur, 2010).

The next two years of the campaign brought in new ideas that proved to be as successful as the original appeals. Year 2 emphasized "Get Yourself Talking," a program where youth were encouraged to talk with providers and partners about testing through a series of on-air, online, and on-the-ground initiatives rolled out at college campuses and in over 4,000 health centers nationwide (CDC, 2010c). Year 3 experienced even more growth for the campaign, with MTV specials, celebrity bloggers, PSAs, sweepstakes, and a "Take Action Tour" that brought the campaign to 50 cities nationwide.

In particular, the online components of the campaign have had great success since its launch in 2009 (Please refer to Appendix E for examples of the Facebook page, Twitter page, and website homepage). Within its first year GYT was the most searched term on Google, the most tweeted on Twitter, and had the most discussed videos on YouTube (Rzepka, 2010). Celebrity personalities helped spread the GYT message via social networks, with Soulja Boy tweeting "WTF is GYT" to nearly 200,000 followers and Perez Hilton generating over 1,000 comments on his GYT video (MTV, 2009). Finally, GYT partnered with Foursquare to create the first cause-related badge on the location-based social network and presented everyone who got tested for STDs with their very own GYT badge (Priest, 2010).

Research Questions

The purpose of this study is to explore how young adults construct meaning of sexual health, sexual health campaigns, and online sexual health information and examine their meaning of the GYT: Get Yourself Tested Campaign. Based on the review of literature and theory regarding health campaigns, HBM, STOPS, e-health, and sexual health, five primary research questions have emerged to guide this study. Please refer to Appendix H, which links each research question to the appropriate conceptual framework and to examples of corresponding interview questions.

RQ1: How do young adults make meaning of sexual health?

RQ1.1: To what extent do young adults perceive poor sexual health as a severe problem?

RQ1.2: What motivates young adults to want to adopt healthy sexual behaviors?

RQ1.3: What constraints inhibit young adults from adopting healthy

sexual behaviors?

RQ1.4: To what extent are young adults involved with the issue of sexual

health?

RQ2: To what extent do young adults identify their sexual health information

needs online?

RQ2.1: What cues to action motivate young adults to seek sexual health

information online?

RQ2.2: What constraints inhibit young adults from seeking sexual health

information online?

RQ3: How do young adults make meaning of the GYT: Get Yourself Tested

campaign?

RQ4: How do young adults make meaning of online health information seeking in

general?

RQ4.1: How do young adults assess the quality of online health

information?

RQ5: What type of public(s) do young adults constitute around getting tested for

STDs?

A qualitative methodology provides the most appropriate approach to data collection and

analysis to address these research questions.

Chapter 3 – Method

Qualitative methods were used to collect and analyze data. More specifically, in-depth interviews and focus groups were conducted with young adults to explore how they make meaning of online health campaign materials. A constructionist/interpretive research perspective, defined later, is the guiding epistemology to situate this audience-centered study in order to determine young adult's beliefs surrounding sexual health. As Power (2002) argues, qualitative research has demonstrable utility in the field of sexual health, as it helps provide unique insight into the complexity of the social and behavioral undertones of this particular phenomenon. In this chapter, the research design is discussed, including the methodology, data collection techniques, procedures, and validity/reliability issues that need to be taken into consideration for the undertaking of this study.

Qualitative Methodology

Qualitative methodology is a complex approach that is hard to define in a single conceptualization (Denzin & Lincoln, 2008; Potter, 1996). Qualitative scholars strive to study phenomena often in natural settings and attempt to produce idiographic knowledge, where specifics about how individuals in special settings make meaning are explored and what that means to them (Denzin & Lincoln, 2003; Lindlof & Taylor, 2002; Potter, 1996). Thus, qualitative researchers are interested in "human understanding" (Lindlof & Taylor, 2002, p. 19) and they strive to discover how people make sense of their surroundings through the use of various communication practices, social roles, rituals, symbols and signs (Berg, 2009).

83

Constructivist/Interpretive Epistemology

The constructivist/interpretive research perspective posits that multiple realities of a single event are socially constructed, and that there is no one, true and objective reality (Merriam, 2009). According to Cresswell (2007):

In this worldview, individuals seek understanding of the world in which they live and work. They develop subjective meanings of their experiences…These meanings are varied and multiple, leading the researcher to look for the complexity of views…Often these subjective meanings are negotiated socially and historically. In other words, they are simply imprinted on individuals but are formed through interaction with others (hence social constructivism) and through historical and cultural norms that operate in individuals' lives (p. 20-21).

Thus, findings of a qualitative study are created and elicited primarily through the interaction between and among the investigator and participants, leading to a potentially consensual social construction that is continually open to new interpretations (Guba & Lincoln, 1994). Participants may work in tandem with the researcher to invent concepts, models, and schemes to make sense of an experience, then test and modify those concepts in light of new ones (Schwandt, 1998). The constructivist perspective is appropriate for this study on sexual health communication due to its attention toward empowering action and the researcher's role as both participant and facilitator (Guba & Lincoln, 1994; Guba & Lincoln, 1989). In my role as interviewer and focus group moderator, I discussed aspects of sexual health and online information seeking that informed my own experiences, and had conversations with participants on how our combined experiences related to the aims of this particular study.

Interviewing

This study consisted of qualitative, in-depth individual interviews as well as a series of focus groups. I conducted semi-structured interviews, which allows the researcher to approach the world from the subject's perspective and to come to understand that individuals perceive the world in varying ways (Berg, 2009). Through the semi-structured interview, a "conversation with a purpose" (Dexter, 1970, p. 136) is constructed, allowing for a special kind of information to be collected:

> We interview people to find out from them those things we cannot directly observe…We cannot observe feelings, thoughts, and intentions. We cannot observe behaviors that took place at some previous point in time. We cannot observe situations that preclude the presence of an observer. We cannot observe how people have organized the world and the meanings they attach to what goes on in the world. We have to ask people questions about those things. The purpose of interviewing, them, is to allow us to enter into the other person's perspective (Patton, 2002, p. 340-341).

Therefore, though the interview can be time consuming, this process allows the researcher to deeply explore different cultural forms, practices, and actions without violating the privacy of the individual, as the information shared is purely at the participant's discretion and is kept strictly between the participant and the interviewer (Lindlof & Taylor, 2002; McCracken, 1988). In effective semi- or unstructured interviewing, the participant does the majority of the talking, guiding the interview by way of what he/she believes to be important (Berg, 2009; Rubin & Rubin, 2005). This is

appropriate here, especially in terms of discussing sexual health, where experiences are personal and often intensely private (Power, 2002).

In-Depth Interviews

Conducting interviews allows the participant to define the world in unique ways (Merriam, 2009). Being seen as a "conversational partner," the interview is seen as an important relationship where the interviewer needs to be conscious of his/her own prejudices, beliefs, and biases in order to ensure that the interaction is a positive experience (Rubin & Rubin, 2005, p. 14). One way that this can be accomplished is through asking, open-ended, broad questions where the interviewer is free to digress from the prepared standardized questions in order to allow new thoughts and ideas to emerge directly from participants (Berg 2009; Merriam, 2009; Rubin & Rubin, 2005).

The biggest advantage of the in-depth interview process is its ability to generate more depth and detail to understand a topic or issue (Yin, 2009). However, some disadvantages include the potential power imbalance between the researcher and the researched (Fontana & Frey, 2003), its time-consuming and time-sensitive nature (Boyce & Neale, 2006), and being prone to bias, including response bias (due to poorly worded questions), recall bias (from the participants' inability to remember events) and self-reporting bias (where participants say what they think interviewers want to hear) (Boyce & Neale, 2006; Yin, 2009).

Focus Groups

Focus groups allow researchers to learn about the "conscious, semiconscious, and unconscious psychological and sociocultural characteristics and processes among various groups" (Berg, 2009, p. 158) through the use of dialogue. The primary purpose of this

86

method is to create dynamic interactions between participants that can stimulate

discussion made by one another's comments (Berg, 2009). The focus group can be

successful because it "taps into human tendencies" by allowing participants to influence

each other and reveal emotions that would normally not occur in isolation (Krueger,

1994, p. 10). With sensitive topics such as sexual health, the researcher hopes that

participants will trust one another enough to speak more intimately about the topic

(Morgan, 1988).

Focus groups can offer participants a greater role in formulating the data

collected, granting them more power and control and creating a more egalitarian research

environment (Reinharz, 1992). For this study, this power shift can be seen in the self-

empowerment and consciousness-raising about sexual health issues that occurred. The

focus group also provides a forum for social constructions of meaning as a potential form

of support (Lunt & Livingstone, 1996), through the engagement of participants creating a

synergistic group effect (Berg, 2009). Because of this, the focus group method is an ideal

approach for the constructivist/interpretive epistemology, which emphasizes the

utilization of social constructions to make meaning of a phenomenon.

However, the group setting can also result in self-reporting bias, where members

of the focus group are responding how they wish to be seen, rather than how they really

feel (Krueger, 1994). Participants may experience a power differential, believing that the

moderator holds a more privileged position than them (Wilkinson, 1998). Focus groups

are also time-consuming to conduct as it takes time to recruit and schedule participants.

In addition, one or two members of the focus group could dominate the discussion,

alienating the quieter members of the group. However, due to my extensive experience as

a focus group moderator, I worked to overcome these challenges and ultimately felt that the advantages outweighed the disadvantages, leading to the use of focus groups for this study.

Data Collection Procedures

I conducted five focus groups along with 50 in-depth interviews, which allowed me to triangulate my data and obtain a variety of responses through these data collection methods (Berg, 2009; Yin, 2009). To assist in my data collection, I developed a partnership with CDC's Division of STD Prevention for this study, who I informally contacted in October 2011 to express my interest in examining the GYT campaign. I have since conducted several conference calls with the Division to discuss my dissertation project, data collection needs, publication requirements, and other important considerations. The CDC Division of STD Prevention agreed to assist in the recruitment of participants via its connections and networks. Access to additional study participants was also negotiated through collaborating with CDC's college affiliates. The research protocol was reviewed and approved by the University of Maryland's Institutional Review Board (IRB). See Appendix F and G for the IRB consent forms.

Sample

I recruited both male and female young adults, aged 18-25, who were either current undergraduate students or recent graduates from colleges and universities across different geographic regions. A total of 115 participants were included in the study: 50 in the in-depth interviews and 65 in the focus groups (for a listing of demographic characteristics, see Table 3). The focus groups averaged 10 participants in each group. Lindlof and Taylor (2002) claim that 6-12 participants is an ideal range, as too few

participants might cause response fatigue and would limit the discussion to fewer topics and too many participants might cause some participants to not interact with each other and might cause some side conversations and tangential discussions that might linger on for too long. I interviewed 50 participants, comprising a sample with maximum variation across racial, ethnic, and sexuality backgrounds. Depending on the geographic area of the participant, the interview took place face-to-face at a location convenient for them, over Skype, or over the telephone. One advantage of conducting phone interviews is the ability to give participants a greater sense of anonymity, and can be seen as "ultimately just as good at getting full responses as an in-person interview" (Lindlof & Taylor, 2010, p. 190). To get a diversity of voices and responses, the young adults who participated in the in-depth interviews were not eligible to also participate in the focus group sessions.

Recruitment Method

I used purposive and convenience sampling techniques to approach and recruit participants for this study (Rubin & Rubin, 2005). Participants were obtained by approaching acquaintances and informal contacts in the geographical areas I have access to, namely New Jersey and Maryland (see Appendix C and D for invitation email soliciting participation).

For the focus groups, I used my personal connections in recruiting participants. In Maryland, I used the University of Maryland Department of Communication's research participant pool, SONA, to recruit participants. Through this system, students are eligible to receive extra credit for their participation in research activities. In New Jersey, I approached instructors at universities I have access to (The College of New Jersey; Rutgers University) to schedule focus group sessions with students. Instructors served as

informants, who offered additional information about the culture and environment of their students and the university (Lindlof & Taylor, 2002; Rubin & Rubin, 2005). The focus groups took place in classrooms located on these campuses, and students received extra credit for their participation. The advantage of choosing three universities is the increased diversity within the student population, allowing me to attempt an approximately stratified sample in terms of gender and race, maximizing the demographic variety in the participants and accessing more diverse views (Rubin & Rubin, 2005). In addition, the state of Maryland has significantly higher STDs rates compared to New Jersey (CDC, 2010a), so conducting focus groups with students from both states provided a wider range of responses in terms of meaning constructions of sexual health.

For the interviews, I used the universities as previously mentioned, in addition to the contacts made through the University of Maryland's alumni network and partnering with the CDC Division of STD Prevention. The Division connected me with the American College Health Association, in order to recruit more participants via their health promotion and sexual health listserv. I also reached out to various University of Maryland alumni, who provided me access to their students at different universities across the nation.

Data Collection Procedure

Prior to the interviews and focus groups, I either emailed or presented the participant with a consent form, which detailed information about the study, participants' rights, and my contact information. The participant read the consent form and sent back a signed copy via email or signed the form on location, depending on the type of interview

being conducted. Participants were asked if they agreed to being audio recorded, in order to gather intimate details from the session afterward. The interviews lasted on average 30 minutes, and the focus group sessions lasted on average 60 minutes.

For the interviews and focus groups, I used semi-structured interview guides (discussed below) to guide the discussion and answer the study's research questions. For the focus groups, the discussion revolved around how the participants collectively and socially constructed meaning surrounding sexual health, sexual health campaigns, and online sexual health information. As a group they also evaluated the GYT Campaign materials, sharing stories and personal preferences to determine the effectiveness of the messages. For the in-depth interviews, participants were contacted either in person, over the phone, or over Skype (depending on the geographic location or preference of the participant) using another interview guide. However, these interviews focused on how young adults make meaning of the study individually, through their own personal experiences and opinions (Krueger, 1994). More individualized questions were asked in the in-depth interviews, as this setting was more conducive to a more intimate and private conversation between the participant and myself.

Interview Guides

Two interview guides of semi-structured questions helped me ask the main questions deemed important to explore in this study. Interview guides for semi-structured interviews and focus groups generally "allow for open-ended responses and are flexible enough for the observer to note and collect data on unexpected dimensions of the topic" (Bogdan & Biklen, 1998, p. 71). Therefore, I used guides that allow for the researcher to remain flexible during the interviews and focus groups and edit, remove, or change

questions as needed (Berg, 2009). See Appendix A and B for the complete in-depth interview and focus group guides.

The first part of the interview guides consisted of several "grand tour" questions (McCracken, 1988) that asked participants about their general health concerns and where they turn to for health information. These questions can also be seen as a way to establish comfort and rapport with participants, encouraging them to engage with the interview and respond freely (Lindlof & Taylor, 2010). Then, the questions shifted to e-health in particular, asking participants about their perceptions of online health information, whether they turn to those sources, and if they find those online sources to be helpful (RQ2/RQ4).

The next set of questions revolve around the topic of sexual health, asking participants items such as defining the term, where they find sexual health information, and their knowledge about STDs and testing (RQ1/RQ5). Additional questions revolved around the concepts of HBM/STOPS, in terms of whether or not they feel susceptible to STDs and what benefits and constraints are present (RQ1/RQ2/RQ5). The in-depth interview guide asked these questions in a more individualized context, whereas the focus group guide asked these questions more generally and relied on interactions among participants via group responses. Finally, participants were asked questions about the GYT campaign materials in particular (RQ3), again using the constructs of HBM/STOPS as guiding theoretical frameworks. Campaign materials included the GYT Facebook page, Twitter feed, and website (See Appendix E for screenshots of campaign materials). Questions consisted of items such as whether the campaign increases levels of perceived susceptibility and severity, poses relevant benefits, and attempts to overcome barriers in

terms of getting tested for STDs. Follow-up questions and probes were also included in the interview guides to elicit more information from participants and to keep the conversation moving (Berg, 2009; Rubin & Rubin, 2005).

To pre-test the interview guides, I conducted two pilot focus groups and three in-depth interviews to assess and eliminate inappropriate questions and preemptively expose any issues that might surface during the process (Mason, 2002). Since many of the theoretical constructs have previously been used in quantitative studies, it is important to pre-test the guides in order to determine whether they have been appropriately revised to suit an open-ended, semi-structured interview and focus group session. The CDC Division of STD Prevention also provided feedback on the guides based on their expertise in sexual health and the GYT Campaign. Based on the feedback received from these pre-testing sessions, I went back and adjusted the wording of questions accordingly. Please refer to Appendix H, which links each research question to the appropriate theoretical, conceptual framework and to interview questions.

Confidentiality

To protect the identities of my participants, they were provided pseudonyms in all audiotapes and transcripts. Also, none of the participants' real names were used in the reporting of the results.

Data Analysis

I employed an inductive/deductive method of data analysis for this study. For the deductive process, I compared and contrasted data with current theoretical understandings in HBM and STOPS. For the inductive process I employed a grounded theory approach to analyzing data, developed by Glaser and Strauss (1967). According to

Corbin and Strauss (2008), grounded theory can be used as an analytical approach that does not necessarily result in theory construction, and can even use an overarching theoretical framework in the process: to complement, extend, verify findings; offer alternative explanations; and/or provide insight and direction. I used HBM/STOPS, e-health, and sexual health as conceptual frameworks to guide this study. Furthermore, Corbin in particular believed all research is pragmatic and should guide practice (Corbin & Strauss, 2008); I used the results of this study to assist the CDC Division of STD Prevention and other campaign developers with future online health programs.

All of the focus groups and in-depth interviews were transcribed. As the researcher I transcribed all of the focus groups and some of the in-depth interviews, to ensure that I am familiar and immersed in the data; the remaining transcripts were completed by an undergraduate research assistant who received independent study course credit for her work. Data were analyzed using a constant comparative method to allow for additional themes to emerge (Corbin & Strauss, 2008; Glaser & Strauss, 1997; Potter, 1996; Strauss & Corbin, 1998). HyperRESEARCH qualitative analysis software was employed to assist with the data analysis. First, I conducted open-coding procedures to examine the transcripts line-by-line to locate emerging themes and potential categories. Open coding is useful because it forces the researcher to break data apart and think about data in new ways that may differ from participants' interpretations. I then conducted axial coding to find how data can fit into the categorical themes that were identified in the first step, relating various concepts to each other. According to Lindlof and Taylor (2010), axial coding is a part of an integration process that narrows down the number of categories by finding similarities across data in order to make the data clearer and more

understandable. I employed the coding paradigm perspective (Corbin & Strauss, 2008) in order to ask myself questions regarding the context of the data and to obtain a deeper understanding of the circumstances and consequences surrounding the events under study.

Selective codes via the conditional/consequential matrix (Corbin & Strauss, 2008) were then used to further sort through the data and direct what I should have focused on. The matrix helps the researcher figure out the range of different conditions and consequences in which the study is situated. However, though single statements were combined to create various concepts, stand-alone statements that are unique or exceptional were also coded, in an effort to avoid too much coherency in the data (van Zoonen, 1994). In addition, Corbin and Strauss (2008) recommended using in-vivo codes in order to privilege the words of the participants. When a participant made a poignant point, these words were used verbatim as a code within the data analysis process. To make sense of data collection and analysis, I also wrote memos and observer comments to keep track of ideas, issues, and impressions that came from each interview and focus group session (Bogdan & Biklen, 1998; Rubin & Rubin, 2005). According to Corbin and Strauss (2008), memos should be written as soon as interesting ideas and categories emerge and should be preliminary, partial, and correctable.

Data collection and analysis occurred simultaneously and was ongoing. Miles and Huberman (1994) argued that waiting until all the data are gathered to begin analysis is a "serious mistake" that "rules out the possibility of collecting new data to fill in the gaps, or to test new hypotheses that emerge during analysis" (p. 49). In summary, with an inductive/deductive structure in mind, I used my theoretical framework as a guide for my

data analysis, but also remained open to additional themes or concepts that emerged freely from the data. For example, when the data revealed a concept that I was not expecting but wanted to further pursue, I documented this change, adjusted the interview guide accordingly, and asked later participants about this theme or concept. This procedure resulted in 17 consequential changes to the in-depth interview guide, which demonstrated taking multiple realities into account via the constructivist/interpretive epistemology. I then continued to collect and analyze data until I reached the point of theoretical saturation, when "all categories are well developed in terms of properties, dimensions, and variations" (Corbin & Strauss, 2008, p. 263). Because the issue of sexual health is so individualistic and complex, and because I wanted to fully utilize my guiding epistemology, I collected a large sample size of data in order to ensure that all varying degrees of perspectives were taken into account. With that said, I did finally come to a point where I each new interview and focus group session did not add anything unique to what has already been mentioned, resulting in gathering the same information (Rubin & Rubin, 2005).

Validity and Reliability

According to quantitative standards, a study is deemed reliable if it "yields the same answer however and whenever it is carried out" (Kirk & Miller, 1986, p. 19), it is internally valid if the research instrument accurately measures what it is supposed to measure (Wolcott, 1995), and is generalizable if the study can be applied to the entire population. However, qualitative researchers have worked to reconceptualize these constructs in order to more appropriately apply it to the philosophy behind qualitative

methods. Lincoln and Guba (1985) took a step in this direction by renaming the concepts as credibility, consistency, and transferability.

Credibility in qualitative research deals with internal validity, or the idea that the findings of the study match reality. In the case of qualitative research, the researcher serves as the research instrument (Cheney, 2000; McCracken, 1988; Rubin & Rubin, 2005), through an investigation of participants' constantly shifting constructions of reality. According to Maxwell (2005) validity can only be seen as "a goal rather than a product" (p. 105) that should be assessed in terms of the purposes of the research. However, even though qualitative research can never capture an objective "truth" or "reality," it can be valid in the sense that it "accepts the possibility of specific, local, personal, and community forms of truth, with a focus on daily life and local narrative" (Kvale, 1995, p. 21). Researchers can also strive toward credibility by using authenticity and ethics when dealing with participants, through feedback from informants and member checks (Kvale, 1995; Lincoln & Guba, 2003). Credibility can also be achieved through self-reflexivity, which allows the researcher to explore how their personal beliefs and understandings impact the study findings (Lather, 1991).

Consistency deals with the notion of reliability, or whether findings of a study can be replicated. Merriam (2009) claims that reliability presents a problem in the social sciences because "human behavior is never static, nor is what many experience necessarily more reliable than what one person experiences" (p. 221). However, inherent value exists in how different researchers interpret data, because the more important question is not so much reliability as it is whether the results are consistent with the data collected. According to Merriam (2009), consistency deals with the idea that "outsiders

concur that, given the data collected, the results make sense – they are consistent and dependable" (p. 221). One approach to ensure consistency is through triangulation, which can be achieved through four different ways: data source triangulation, investigator triangulation, theory triangulation and methodological triangulation (Yin, 2009). By utilizing triangulation, the researcher reduces biases and increases the trustworthiness of the data.

Lastly, transferability deals with the issue of generalizability, which determines whether the findings of one study can be applied to other situations and contexts. Though this issue has been one of the biggest challenges for qualitative researchers to overcome, it should not even be a point of contention, because "in qualitative research, a single case or small, nonrandom, purposeful sample is selected precisely because the researcher wishes to understand the particular in depth, not to find out what is generally true of the many" (Merriam, 2009, p. 224). Merriam (2009) purports that qualitative researchers can think in terms of reader or user generalizability, where a "study's findings apply to other situations up to the people in those situations" (p. 226). In order to capitalize on this notion and make their findings more transferable, researchers can use rich, thick description (Geertz, 1973) and maximum variation (Rubin & Rubin, 2005) as methods when collecting their data. Kvale (1995) also describes various tactics to validate and check progress, which include:

> …checking for representativeness and for research effects, triangulating, weighing the evidence, checking the meaning of outliers, using extreme cases, following up surprises, looking for negative evidence, making if-then tests, ruling

out spurious relations, replicating a finding, checking out rival explanations, and

getting feedback from informants (p. 27).

I used a number of methods to ensure the credibility, consistency, and

transferability of this study. First, I constantly memoed throughout the data collection and

analysis process, in order to be self-reflexive by making sense of my own personal biases

that could affect how I carry out this research. I left an *audit trail* (Lincoln & Guba,

1985), by writing descriptive accounts of how data was collected, how categories were

derived, and how decisions were made throughout the course of the study. Secondly, I

triangulated my study by employing multiple methods – in-depth interviews and focus

groups – along with maximum variation sampling to ensure that I am getting as many

diverse perspectives as possible. Finally, I used member checks, or respondent validation

(Silverman & Marvasti, 2008), in order to rule out "the possibility of misinterpreting the

meaning of what participants say and do and the perspective they have on what is going

on" (Maxwell, 2005, p. 111). I conducted member checks throughout the interview

process to crosscheck and ensure that I am correctly interpreting their responses, and

shared my analysis with a randomly selected group of participants to obtain feedback on

what was found. Because the findings were very similar across the interviews and focus

groups, I was able to use these member checks to check for the consistency of the

findings across the data collected.

Researcher's Interest in the Proposed Study

This study was conducted at an exciting time in my academic career, culminating

a research agenda that has been in development for the past five years. I have always

been very interested in campaign work, from the time I was an undergraduate at The

College of New Jersey developing social marketing health campaigns to my experiences developing strategy for non-profits in New Jersey and Maryland. I always found the campaign planning process to be fun and interesting, and used my experiences to inform my teaching of public relations undergraduates about the mechanics of developing a successful campaign. This interest crossed over into my research early on in my master's program, where I wrote an award-winning thesis on how college-aged women made meaning of sexual assault campaign materials. Research on campaign analysis continues to this day, where I have co-authored a book chapter on the Kony 2012 campaign made viral by Invisible Children, Inc.

My interest in social media was sparked next. As an avid social media user personally, it made perfect sense to use that personal interest for my research. I've co-authored a study on how public relations practitioners use social media in a "most downloaded" article published in *Public Relations Review*. I've led co-authored studies on how public relations educators and practitioners use social media in their mentoring relationships. And I've assisted in the development of a model that determines how social media can be used in times of crisis. With more and more public relations practitioners turning to social media for their day-to-day work, studying this topic made sense for me, not just personally, but also in terms of my academic career.

This interest in the online sphere also crossed over into my health communication research, where I have conducted studies on online health information seeking, the use of social media channels to disseminate health information, and the impact of e-health on reaching out to at-risk populations. In addition, an independent study with a professor in the College of Information Studies also offered opportunities on researching e-health

with the older adult population. I am fortunate to have taught computer training classes to older adults (a very humbling experience, I might add!) as well as held focus group sessions with this population on how they can use iPads to make better health decisions.

Lastly, the topic of sexual health seemed to have emerged as a running theme throughout my current research projects. I have several co-authored publications on the HPV vaccine in terms of how it is mandated and covered on different online channels. I have co-authored a piece on abortion, and how it can be viewed as domestic terrorism. However, I feel it is important to note that I have always been a long-standing proponent for sexual health, particularly women's sexual health, for the past several years, participating in activist performances and attending events. My own personal experience as a rape survivor has made sexual issues particularly relevant to me, making it important to educate young adults on sex-positive practices that are safe, enjoyable, and consented.

Chapter 4 – Results

The purpose of this chapter is to present the research findings of this study, which emerged from 50 in-depth qualitative interviews and five focus groups with young adults between the ages of 18-25. Though the integrity of the participants' words were left intact in the reporting of these findings, some punctuation was corrected to ease the readability of the quotations. Pseudonyms were also used to link quotes to the participants' speech, but allowed for the protection of their identities. These results depict the intersections of public relations, e-health, campaigns, and sexual health and are addressed by the five research questions and sub-research questions.

RQ1: How Do Young Adults Make Meaning of Sexual Health?

The participants' limited understanding and knowledge of sexual health influenced how they made meaning of this particular construct. This was evidenced in a number of ways, namely by (1) defining sexual health as purely STD and pregnancy prevention; and (2) having general, but limited STD knowledge. However, the participants were aware of the impact of sexual health on their daily lives, through their discussions of (3) sexual health's influence on overall health and well being; and their (4) awareness of stigma surrounding sexual health.

Sexual health as purely STD and pregnancy prevention. Despite the WHO's (2002) definition of sexual health, which includes healthy relationships and open conversations with partners about STD history and birth control, the participants defined sexual health as purely STD and pregnancy prevention, mostly in terms of getting tested and protecting themselves. Several of the young adults had similar statements when it came to defining sexual health. As Christine mentioned, sexual health is "not trying to get

pregnant, being on the pill or using a condom, making sure your partner doesn't have an STD or something." Debra had similar thoughts, stating "I think it's probably the first thing I think about is when I think about sex with someone and I think condoms, STDs and protecting yourself." Henry's response echoed the others when he said, "I would think taking care of yourself; making sure you don't put yourself anywhere in risk of catching a disease or even a disease, getting checked, wearing protection…that's pretty much it." Finally one participant, Frank, put the definition very bluntly: "Not having STDs, don't get pregnant and die. That just about covers it."

General, but limited STD knowledge. When asked to discuss their knowledge of STDs, the majority of participants felt that they had a general knowledge about certain diseases, which diseases were incurable, and what symptoms to look out for, but overall the participants had limited knowledge about what diseases were out there. As Rose mentioned, "There's still some diseases I don't know about them, I've heard about them but that's about it. I'm pretty knowledgeable but maybe…I don't really know that much." Renee felt a little more confident about her STD knowledge and said, "I think I know an okay amount. I know a lot of them don't have a symptom always, that's why you do have to get tested. I know the main ones. I know which ones can and can't be cured. I know there are different strands of HPV and things like that." Angela claimed that knowing which STDs were curable was the most important thing in terms of knowledge and awareness: "I feel like I know a lot about them, what it is or whatever, but I mostly know about if you can get rid of it or not. That is probably like the most important thing. Is that one you can get rid of with antibiotics or does it stay with you for the rest of your life. But…I don't [know] everything about all of them."

103

Sexual health's influence on overall health and well being. Despite the participants' limited understandings of sexual health and STDs in general, they were still fairly aware of how sexual health impacts their overall health and well being. Several women in one of the focus groups discussed how their sexual health plays a role in their day-to-day lives:

> Andrea: If you got pregnant without planning it would impact your life. It would change a lot of things.
>
> Jessica: It's perfectly integrated. I take my birth control, I take my multivitamin. It's part of my daily routine.
>
> Rita: Yeah I agree, I take my birth control like clockwork, I go to the gyno[cologist] once a year. It's what you do. It's being responsible.

This idea was discussed in the interviews as well, such as according to one participant, Erica:

> I think it really affects your overall health. Obviously physical health you could get pregnant or some kind of STI, something that won't go away. I also think that in the context of relationships that it's also a quality of life issue. I think that a lot of your social well being and emotional health. On a very tangible level you could get a disease or you could get pregnant or something.

Matt claimed that a positive sexual life leads to additional healthy outcomes:

> If you're in good sexual health, that can correspond to overall good health. If you're in a good position sexually, you're good physically, and mentally too. If everything is A-ok, and your sexual life is satisfactory and you're in a good position…it leads to good physical exercise, you're in a good physical state, and it

also relieves you mentally…you're happy, you're confident, you're in a good place and everything it corresponds positively I would think.

Awareness of stigma surrounding sexual health. A series of interesting conversations emerged from the interviews and focus groups in terms of why there is such a stigma surrounding sexual health. Virginia's attempted explanation had to do with the dichotomy of sex that has been established in the United States:

> I mean, I think part of it is there is this dichotomy of 'sex, sex, sex, sex, everywhere,' but we can't talk about it. I think if we can kinda get some balance, it would be a start. People are obviously having sex, and that's ok, but we also need to talk about this, this, and this. In terms of massive culture shifts, I have not figured that out yet.

One of the participants, Neil, had an in-depth response in terms of why this stigma exists:

> It's very…such a taboo, no one wants to talk about it. When you hear someone has syphilis, you don't want to be with them, you think of them less, you want them to go away, but it could be a result of bad education. The reality is that a lot of people my age have STDs, and that's not brought to light as well as it could be.

Domenic had similar viewpoints in terms of the stigma surrounding sex and how more comprehensive education can pose a probable solution:

> I think there's a very negative societal viewpoint on sex and sexuality, which I think is stupid because we shouldn't be ashamed to talk about it. It really saddens me that people can't talk openly about it. I don't have any personal shame about it, but some people fear being judged. I know a lot of conservative politicians are

playing the shame game…it's really unfortunate…I think we need to bring sexual

education to the forefront and make people aware.

Diego had a hopeful and more positive outlook on the situation:

I think we can definitely change. I think it is definitely changing. People are

talking about it more, which leads to people knowing what the right thing to do is.

Whether or not young people make good decisions all the time, I don't know how

often that happens especially once substances get involved. I definitely think that

we're moving towards a more open society in terms of these things because we're

always gradually becoming more progressive in talking about these issues.

RQ1.1: To What Extent Do Young Adults Perceive Poor Sexual Health as a Severe

Problem?

Based on their personal experiences and observations, the participants had a sense

of the repercussions of poor sexual health practices and were committed to avoiding

those repercussions at all costs. Mainly, participants saw poor sexual health practices as a

severe problem based on (1) observing others' sexual health choices. By taking note of

these observations, the participants were adamant about being safe because of a fear of

(2) putting their health into jeopardy; and (3) dealing with the financial burden of poor

sexual health.

Observing others' sexual health choices. Through their observations of how

other people have made poor sexual health choices has made the possibility of pregnancy

or STDs a very striking reality for many of the participants. As Eric mentioned in his

interview: "…seeing the people around me. Just seeing how it's negatively affected them.

Just a small possibility that that could happen to me is way more feared then it's worth to

me not to be safe." Amber, who is a current college student, witnessed what an unwanted pregnancy/STD has done to girls she went to high school with and how that has raised her awareness about the issue:

> I don't want to end up like a lot of the girls that I went to high school with because a lot of them are having children and at my age I cannot imagine raising a child. A lot of them also like to post on Facebook that they're mad at their ex or significant other for giving them an STD. I don't know why you post that on Facebook. I don't want that to happen to me so I'm just worrying from their mistakes. I know that I can't provide for a child right now.

Domenic made a very valid point about the importance of making young adults aware of the prevalence of poor sexual health, as it helps them to think more deeply about their potential susceptibility to the problem:

> I think it's important for people to realize that this happens to people everyday, or every minute, or however often it is. It happens to people just like you, just like us. It is important to see young adults like them who live relatively normal lives but have these problems, caught an STD, got pregnant, they had all these plans… they wanted to be doctor but had to drop out of school because they have a child. You need to make it real for people. No more of looking at this from afar.

Putting one's health into jeopardy. The participants were fully aware of the health repercussions of STDs and were conscious about not putting their health and well being into jeopardy. As Nancy stated, "I've just always been concerned with my health and especially that because that's something that, like I said, you have it forever, it's not something that could be cured necessarily." Jack agreed in his interview, saying that

making positive sexual choices leads to a "better life, healthier life. Realistically you're not going to have anything that's going to cause you trouble or interfere with things down the line." On the flip side, Frank discussed the negative effects of STDs and how that can impact a young person's life, saying that "herpes and stuff isn't pleasant and it's not curable. It's not curable is really the catch here. That's irritating." Angela was also aware of the impact of poor sexual health and discussed the benefits of being smart, and said, "The biggest benefit is probably just knowing that you don't have to be another statistic. That kind of stuff is so common especially now with getting STDs and everything, I think that's the biggest benefit that you could just be like well, I made it, I don't have an STD or something like that."

Financial burden of poor sexual health. Participants were cognizant of the financial burden an unwanted pregnancy or an STD can bring to them as a result of a poor choice in terms of their sexual health. As Matt claimed, "I don't want unexpected economical drain where I cannot handle the financial responsibility." Rose discussed the financial drain in terms of being diagnosed with an STD, and said, "It's a big waste of money if you have a disease. For prescriptions and medicines and things like that." Alex saw this mindset as "heartless," but he was very concerned about the economic ramifications of an unwanted pregnancy and discussed how he wants to have a child when he is ready:

> I think about the economic ramifications not being able to support the baby, not
> being able to support myself and what not. I've been blessed with two really
> awesome parents who had a great marriage when I was growing up so I want to
> emulate them as much as possible, which comes down to planning when I want to

have kids and making sure that if I bring a child in this world when I'm ready for it and when I'm able to care for it and bring it up in a way that would be best for both me and it.

RQ1.2: What Motivates Young Adults to Want to Adopt Healthy Sexual Behaviors?

Participants were motivated by several factors in terms of why they wanted to adopt healthy sexual behaviors, namely (1) to set oneself up for a promising future; (2) to eliminate worrying; (3) to prolong one's life; and (4) to protect sexual partners.

Setting yourself up for a promising future. The participants were motivated to make healthy choices because they are focused on having a bright and promising future, and felt that an unwanted pregnancy or an STD could compromise those plans. As Sandra said she was concerned about her future, and was "thinking about the bad things that could come out of it. Being pregnant is a huge deal and not being able to support a child right now. My future is what I think about." Max had similar sentiments, and claimed, "You don't want to ruin your life. There are big risks involved and it can really change your whole life plans and goals that you set for yourself if things go wrong." Katrina was thinking about "everything in the long run. I feel like once you get married and have children, you can go through your whole life knowing that you had safe sex and never had to worry about those issues." Mandy also had her future goals in mind:

Basically, in order to protect what you're working so hard for, you're trying to get a degree, you want to have a full-time job, you don't want to be worrying about a baby at 18 or 19 or an STD that you're going to have for the rest of your life. It's really not worth it, in my opinion.

Angela felt the same way:

I would say just like my future is one of the big things. I have so many things planned and so many things I want to do and I want my life to go a certain way with like marriage and kids and making sure my career is off to a really good start. If something hurts me like STDs or an unplanned pregnancy…just throws a monkey wrench into everything, then I'm going to be really upset. That's probably my main thing. That's one of the big factors for me is just trying to stick to my plan.

Not having to worry. Having no worries and having peace of mind was another motivator for participants to be sexually healthy, as mentioned by Renee as "just not having to worry about it the next day, the next month, the next year." Neil claimed that it is essentially a practical notion that makes the most sense for young adults: "You're almost guaranteed to not impregnate the girl, you're guaranteed the chance of not getting an STD. For me, it's the fact, the security of it, you don't have to worry about what has happened." Kyle had similar thoughts, saying that being sexually healthy helps you in terms of "feeling whole. Not feeling there's a problem with your body that you don't need to worry about. I mean, that's got to be profoundly good for your mental health. It sucks to be sick with anything. Getting infected would be bad."

Other participants talked about not having to worry about your reputation. As Katherine mentioned in one of the focus groups: "If you've been with everybody you may be dirty, everyone will talk about you." Nancy brought up a personal example of someone whose reputation has been negatively affected by poor sexual health decisions: "I know this person at my school that has an STD or was rumored that she has an STD

and a lot of guys don't want to even get near her so that it would lead to anything. I just think that the biggest benefit is that you're free to do whatever you want and be healthy."

Prolonging life. Participants mentioned increasing the longevity of their lives as a motivator for adopting healthy sexual behaviors. Debra said, "As long as you maintain a healthy inside and outside, then you'll be living a longer life, at least that's what the theory is unless something tragic happens." Dave brought up this same point, and said that making good choices helps prolong your life and "not having to go through the different trials and tribulations of having to deal with an STD when its so much simpler to protect yourself and do the right thing in that respect." Matt discussed how adopting healthy behaviors is beneficial, in that "you take the necessary precautions…that's how you maximize your chances of being in a good physical, mental, and economical state."

Eric felt very strongly about prolonging his life by way of making healthy decisions in terms of his sexual health, and was committed to not becoming another statistic:

> As far as my overall health goes, around my life and my friends in the past 10-15
> years, I have seen everything imaginable happen to one person or another even
> from my own personal family or my very close friends. I've seen the absolute
> negative effects of that and I will be damned before it happens to myself.

Protecting sexual partners. The participants also discussed how being safe and healthy not only impacts them, but their sexual partners as well. They talked about how they want to protect their partners in every way that they possibly can. As Matt mentioned, "I want to be in good health, I want my partner to be in good health." Diego had very similar feelings, and said, "Probably one of the strongest [motivators] would be

the pushing of one of my partners and out of protection of them. I should be worried about myself, but I'm a guy and we tend to ignore things." Jack discussed how an STD might impact your future relationships with sexual partners: "For example, if you kept some kind of disease that [you] need to inform your partner about every now and then… if you have a flare up then that's going to put a damper on things in the future."

Domenic not only believed protecting partners to be important, but also connected it with being able to give yourself fully to others, without any terrible consequences or ramifications: "I think when you are in a good spot in life, you are able to help other people and do other things. If you have your life in order in terms of finances, and health, I think you are more able to give yourself to others. I think that's really important."

RQ1.3 What Constraints Inhibit Young Adults from Adopting Healthy Sexual Behaviors?

The participants listed a series of different challenges, barriers, and constraints that prevented them from adopting healthy sexual behaviors. These constraints included (1) alcohol consumption; (2) ineffective communication with sexual partners; (3) dislike of using condoms; (4) lack of knowledge about sexual health; (5) stressors and pressure from college life; and (6) the idea of being invincible and immortal.

The effects of alcohol consumption. Drinking alcohol was the number one barrier to good sexual health for many of the participants. In fact, Vicki stated, "Alcohol [as] number one. Because you make bad decisions and you're not in the right state of mind." Katrina brought up alcohol as being a part of the college environment and a big problem especially for women:

Being in college, we all make stupid decisions especially when you mix in

alcohol. That's my main thing, know that when I'm going out and drinking I need

to keep my values in mind. You always see the girls the next morning wondering

why they drank and did that. So I definitely feel like that's a big problem.

Nancy had similar thoughts, claiming that the college environment is more conducive to

heavy drinking, which could lead to poor decisions:

I mean I think in college obviously people are drinking and obviously there's

some situations where you could be heavily intoxicated and your judgment is

clearly clouded and you can have sex without a condom or forget to take your

birth control pill…just a bunch of stuff like that, there's a lot of distractions.

Dana discussed how alcohol can lead to unsafe sexual behaviors. As Dana said, "For

sure, I think a big part of why people drink is so that they feel more open and what they

call liquid courage and I think when your inhibitions are lowered, you're more willing to

go along with things you wouldn't normally do."

Ineffective communication with sexual partners. Ineffective communication

with sexual partners was another constraint that many of the participants faced, whether it

is because the situation is too awkward or they feel embarrassed. As Bridget said, "Some

people don't want to talk about it or they feel like that's something that their partner isn't

going to be open for dialogue or conversation." However Amber sees this avoidance as a

big problem, as it can lead to undesirable consequences:

They may not always want to bring up the touchy topics with their significant

others, but if you don't talk about it then something might go wrong somewhere.

Like if you don't have a condom and he forgets…I don't imagine without

communication things going very well for very long.

Tina also discussed the importance of good communication, arguing that it has been

lacking for many young couples:

I think it's communication. It's a lack of communication, especially for people in

my age range. I think it's because of social media because we do not know how to

communicate face-to-face anymore. I feel most guys don't take it lightly and they

take a condom request as this whole big thing and it's like why? So I think it's a

lack of communication.

This lack of communication could potentially also be the result of avoiding awkward

conversations, as was relayed in one of the focus groups:

Tiffany: It can also be very awkward to talk about it. You're trying to be intimate,

then you ask if you have STDs. If you're in the moment you're not going to be

asking that.

Robert: It can be awkward too, at a party meeting someone.

Billy also used the party scenario as an overarching example: "You go out one night and

you find a girl and go home with her. You're not probably going to ask her if she has any

disease because that's kind of a turn off. It's probably not in the front of your mind

either."

Some of the female participants saw the lack of communication as a problem that

men have when it came to discussing safer sex options. According to Debra:

Some guys are fine, but a lot of guys get squeamish and they just want to shut

down. I don't know how to necessarily go about that. I think you just kind of have

114

to be secure about yourself and just be like hey, this is the conversation were going to have. You're not going to have sex with me if you don't.

Dislike of using condoms. Many of the participants faced challenges with partners because he/they did not like to use condoms. For the most part, this was largely due to the difference in feeling/pleasure when they were not wearing the condom. As Eric said, "As far as sexual health goes, it's really people don't like having sex with condoms on because it doesn't feel as good. That's a big thing right there." Matt agreed, saying that many men are "not wanting to use a condom strictly on a pleasure basis." Neil was aware of those opinions, but felt that the costs of not wearing a condom certainly outweighed the benefits: "There are most people who would rather not wear a condom, that's how it is. In my personal opinion, I don't see why you wouldn't wear one. Using protection is the biggest benefit." From a female perspective, Tina shared her challenge of asking her partner to use a condom: "What challenges me is my sexual partner, because most guys for some reason do not like to use condoms. And that's a challenge because it stops [the] mood to put [on] the condom…it alters how things go I guess."

Lack of knowledge about sexual health. Participants believed a huge constraint for some young adults is their lack of knowledge about safe and healthy sexual behaviors. Melissa discussed young people's tendency to make poor choices as a result of not being knowledgeable: "I would say just a lot of people aren't completely educated. They think they know more than they do. Which kinda leads to making stupid decisions." Sandra had similar thoughts in terms of why young adults aren't being safe and accountable:

> People aren't knowledgeable. They are not smart about it. They don't know the
> consequences, they aren't aware of everything. I feel if they were aware and knew

what the consequences are it would be easier, but being at such a young age they

don't know what the consequences are and what could happen. I mean, they

know, but they don't think that will happen to them.

Rose also felt that lack of knowledge was an issue for young people, especially when it

came to using various forms of contraception:

I think it's their knowledge part. They're not sure what certain, they don't know

what the pill does, they don't like condoms. For people who are dating, the

condom part, it doesn't feel the same. They don't know what the pill actually

covers. It's more about the knowledge.

Lastly, Domenic discussed the importance of being knowledgeable, especially when it

comes to sexual health:

I've always been a firm believer in knowledge is power, which is totally cliché,

but I believe to be true. I feel like that what you don't know is more dangerous

than what you do. People need to have information in front of them. People

shouldn't be afraid of knowledge. There's this famous quote, and I live my life by

it, it's by some philosopher, I forget who, but it's 'don't fear answers, fear only of

running out of questions.' And that's a good way to live your life, you should be

able to ask questions and learn things. I think lack of knowledge is very

dangerous and can even cause harm to you.

Pressures from the college environment. Participants believed that there were a

lot of social pressures that resulted from being within the college environment, which in

turn could lead to poor sexual health decisions. As Matt stated, a barrier could be the

"social pressure to participate in something they don't want to participate in." Going

along with the college environment, Mandy discussed how this could be conducive to making mistakes: "It's a new environment. It comes with more freedom and more responsibility, and it gets to a lot of people and they take things for granted, and mistakes can happen. So I feel like just the overall atmosphere can get to some people."

The idea of being invincible/immortal. This particular theme of invincibility/immortality emerged from many of the interviews as a prevalent mindset among young adults. Several participants described what this entails for young people, such as Domenic:

Young people tend to feel invincible, especially when they start to live on their own, they feel like they can do anything. They are in relatively good health, they have a lot of energy, a lot of things going on. Your hormones are raging…you feel invincible, you feel like nothing can touch you. So I think that's a big part of it.

Debra had similar ideas about the invincibility complex of young adults, stating:

I think it's that kind of invincibility, you just don't think it could happen to you. This is the kind of thing that happens to people who are careless and people who aren't in college and aren't doing anything with their lives. I think the quintessential normal person just thinks they're above something like that, but then you see it happen to your friends and you're like no, no, no, that can happen.

Alex attempted to explain why this is the case for so many young adults:

I don't know its tough to explain. I find that a lot of people just because of the way society has gotten in terms of protecting their kids recently is that they kind of put kids in this cocoon where they're told, 'you're special' and they're told,

'you're going to do great things.' As you get older and grow into that perception you get this sense that I'm special, nothing bad is going to happen to me and that all of these diseases and terrible things happen to other people who are worse people than I am. It's a combination of thinking that you're special and then thinking that bad things happen to bad people and I'm special so bad things aren't going to happen to me.

Several of the focus groups discussed this idea, as was relayed within this particular group:

Art: For most people, they are a teenager, nothing will happen to them.

Carlos: We don't take it seriously. Nothing will happen to me.

Leslie: You hear statistics and stuff, you think you're one of the people where it won't affect you.

Carlos: It's not really on your radar.

Cynthia: You hear stories, nothing happens to your friends.

A second focus group had a similar conversation among the participants:

Nicole: They're overly confident, and they just feel I'm happy, I'm safe, there's no way I can get that, even though there is a chance. Even with birth control because there's no STD protection against that.

Sarah: Some people think if they have sex one time without a condom…

Nicole: The birth control movement…people think because they are going on the pill it will be fine and won't get STDs but in reality it doesn't work that way.

Cassie: No one knows who has what. So you think no one's getting anything.

Andrea: You think you're fine. You don't tell your friends if you have an STD.

Sarah: Someone might have the notion, I'm young I'm invisible, an STD is not

going to happen to me.

RQ1.4: To What Extent Are Young Adults Involved with the Issue of Sexual

Health?

Participants recognized their involvement with sexual health through various

personal experiences, which shaped their perceptions of sexual health and how they made

meaning of the construct in their daily lives. Some of these experiences include (1)

getting "the talk" from parents; (2) sexual education experiences; and (3) the practice of

relying on various sources for sexual health information. In addition, participants

discussed (4) the importance of campus resources; and for recent graduates, (5) how to

seek resources after graduating college. Finally, the participants talked about factors that

made sexual health more personally relevant for them, including conversations on (6) the

effectiveness of scare tactics and fear appeals; and (7) the power of personal

story/narrative.

Getting "the talk". Some of the participants relayed their experiences talking

about sex and sexual health with their parents. One participant, Rose, had parents who

were very open with her. As she described:

I have outspoken parents who don't hide anything from me so I learned at a very

young age. I know that's an issue of having open parents who can share

everything with you. I have a friend, who has a kid, but she doesn't know how to

get tested, things like that. I think that's because she was isolated, not like I have,

my parents talked with me about it.

Peter recounted his experience as a little bit more uncomfortable and awkward:

I did and I remember feeling very awkward and funny about it as I'm sure a lot of

kids did. We started learning about it in school and I basically went to my parents

and I was like, 'this is what we've been told, is this [a] conversation I should be

having with you guys?' It was probably not easy for any of us. I think at that time

there was still a big stigma about having the talk and I don't know if that's so true

anymore, obviously I don't really hang around kids of that age. I remember it was

a big deal for me.

Diego, on the other hand, did not have that conversation with his parents at all. According

to him, there is so much accessible information about sex that he argues there is no longer

a need for parents to talk to their children:

I have not had many conversations with my parents about that. Growing up in this

day and age, information is just out there, and at some point you kind of just

assume that we have this information now, you don't need to learn it from us.

You've been presented with this information from a million different angles. In

school, and in pop culture…it's bastardized, but still presented.

The sex ed critique. Participants were asked about their sexual education

experiences and whether or not they thought the classes were effective. There were some

mixed feelings in regards to this. According to Billy, his experience was overall fairly

positive and effective:

Yeah, they teach you a lot about contraceptives. I think they really emphasize like

when they go into details of what each disease too, like Chlamydia, herpes and

stuff like that, it can really implant in your brain. Like oh, that's really bad, you

don't want that, you should really concentrate on your sexual health and all that.

120

Christine, on the other hand, had some issues with her teacher, claiming that it wasn't perceived as an important class:

Our teacher didn't take it very seriously. I feel like if we would have had a better instructor…I had a few friends who went to different schools who had a health class and it was very effective and it was later in their high school…I feel like sophomore year, not as many people were concerned about having sex. It pertained to it, but we should have had more things we needed to before college.

Mandy's experience didn't deal with the instructors so much as the students, who didn't take the content very seriously:

Back then a lot of us were immature and were like 'Oh, they said this' and were kind of silly. I feel like the ones in high school were kind of effective because they'd pay attention…it was just interesting to me. I feel like if you just paid attention in class, it was helpful.

Several participants in one of the focus groups talked about their individual experiences with sexual education:

Megan: My school was very cookie cutter, read out of a textbook, this is it, these are the facts.

Sarah: My high school had physicians come from clinics do presentations.

Robert: My high school was pretty good in presentation. It was too late, by senior year. It was already too late. Should have learned [this] four years ago.

Andy: Mine was my gym teacher and he was 22 years old. Everyone did their homework and treated it like a free period.

Rita: I wasn't having sex in high school but I didn't know what to attribute it to. I didn't experience it…it was a foreign thing to me.

In addition, the participants talked about when is the appropriate time to start sexual education. The general consensus among them was that it needed to happen sooner rather than later because young people were becoming sexually active at a much younger age. As Alex said:

I guess so. My rationale for the timing of that would just be at least six months to a year before the average teenager or adolescent kid is starting to become sexually active…It's tough because it's not something that you can just say once to someone who is in middle school and expect them to understand. I feel like it's just got to be part of a continuing piece of education. I kind of missed a little bit of that because I went from public middle school to catholic high school and catholic schools don't really want to talk about it.

Mandy talked about a system that is utilized in many school districts, where parents can "opt-out" of sexual education for their children:

I kind of like the way our system worked in my middle school because what you could do was if the parents were uncomfortable with a class situation you could opt out. But I do think that age is kind of the time because a lot of the teen pregnancies that are happening lately and it's on the rise. Now they are getting younger and younger so it's becoming more and more important to have this kind of education at a younger age.

Shauna had a different viewpoint, where she believed all students should start taking sex ed in middle school:

No, I think everyone should start learning about it I think now in middle school because people are having sex younger these days. I think everyone should be aware because I know in some schools and some of my classes we've had conversations about how a lot of schools are promoting abstinence and don't go into detail about STDs. I think its just really wrong and naïve because everyone's going to have sex. I think they should start doing it younger in classes and really talking about it, not when a symptom pops up and its like 'oh shit, what do I do?'

Relying on various sources for sexual health information. Participants discussed where they got sexual health information, which came from a variety of sources, including magazines, books, friends, parents, doctors, classes, and the online space. Austin talked about a number of places he turns to when he is in need of sexual health information:

When I seriously need it…because by the time I call my doctor, by the time I search the Internet I get lots of information. I talk to my friends, I go online, I talk to a doctor in other fields so he'll give me information so I wont get the real information from a specific doctor.

Mandy has had similar experiences, where she turns to different forms of media, both print and electronic, and then will go see her doctor depending on the condition:

Yes, in some magazines you kind of look for fun like Glamour or People, just little things. Online, if I ever want to find information on it I'll just go to WebMD or I'll do a Google search and then see what I can find on it. Otherwise I'll just see my doctor.

Diego made an interesting point, talking about how some young adults find their friends'
opinions more reliable than other credible sources:

I think people sometimes see things that come from their friends as even more
reliable than something from the government…not for me necessarily, but if
someone sees something on Facebook their friend shared then it obviously must
be true. People will pay more attention to something sent from their friend than
something that was sent from the government, I think.

One of the focus groups also brought up this idea of friends as a credible source,
in addition to their parents:

Andrea: My gynecologist.

Megan: I would say friends over my mom. I wouldn't ask my mom if I had an
STD. Even if my friends only know as much as I do we can bounce ideas off of
each other.

Rowena: So friends with similar experiences?

Katrina: I wouldn't share any info like that with anyone I know.

Rowena: Are you open about this with your parents?

Tiffany: I'm very open, just [not with] something like that.

Bonnie: My mom is like my best friend. I would go to her about certain things. I
feel like I'm at that age. XYZ, I'll take care of it. I would be up front with her.

Nicole: My mom I talk with her, she's very nonjudgmental.

The importance of campus resources. Another way that participants recognized
involvement with sexual health was via the resources they obtained from their campuses.

Many of the participants who were college students felt that gaining sexual health information was so much easier when living on campus. As Melissa described:

There's so many campaigns, like posters around that really force you to think about it. It's probably a lot easier to get information on campus than off. You actually have to seek it yourself rather than it just kind of being there in front of you.

Two of the participants, Denise and Virginia, talked about the difficulties for young adults who don't have access to campus resources. Denise said, "Actually no, personally if I knew I had a problem like that I would go to the student health services and I'm not sure if people outside of college have that access all the time or at least know where to go." Virginia had similar thoughts, and said, "I have, we have a health services at college. I think if I did not live in that situation, I don't think that they would be to be quite honest."

How to seek resources after graduating college. Going along with Denise and Virginia's statements, several of the participants talked about how young adults who have graduated college can find the sexual health resources that they need. Erica felt that this is definitely obtainable, but a little bit harder than just going to health services on campus:

I think that they can still find those resources and use them, but I definitely think that once you're working or you're not a student, its harder to schedule going in for an appointment or going in to get tested. The city I live in, the county health department, a full panel of STD tests is only $5. I would say that's pretty accessible to people. If you work a job that has normal business hours then it's harder to make an appointment to go over there. If you looked online and thought

125

maybe you had something, you still have to go somewhere and get tested. I think

that's harder. You can just walk onto campus to the student health services.

Alex discussed the extra work it might take for someone who has since graduated:

Getting to like human resources, like getting to a clinic or something like that

seems like its a little more difficult for me, but if I were to come down with

something and it turns out that I need to go tested tomorrow or a week from now

or whatever, I don't have a place that I immediately know okay I can go to this

place. I would have to go online and find a clinic, call them and make sure they

take my insurance, make sure they have the equipment to do the necessary testing

and all that.

Finally, Matt said that this problem can be very individualized, and varies from person to

person, and from job position to job position:

It's not as easy as being able to walk from my dorm to the college health center.

It's available to you, you just need to make an appointment with the doctor. It

varies from position to position. I'm fortunate to be able to make an appointment

without it affecting my work. Some people are not in that position, they have a

job that prevents them from going to the doctor. It's a person-by-person basis.

The effectiveness of scare tactics and fear appeals. Participants talked about

various strategies communicators use to motivate young adults to become involved with

their sexual health. Out of these strategies, the participants felt that scare tactics/fear

appeals were ineffective and should not be used to scare young adults into practicing

healthy sexual behaviors. As Domenic stated:

I don't know. You need to convey importance without scaring people. I think

scare tactic is a horrible way of doing things. I think it's important people

understand the circumstances and consequences of their actions. So you can tell

people that they can do something but they need to be aware that it is a very big

threat. I think that a lot of consequences of sexual behavior are in the distance and

[that it] doesn't affect them until it happens to them. So they're like oh, they have

HIV, it's not gonna happen to me. Then they have it and they don't know what to

do. It's like with a lot of health issues, like cancer, until it affects you it doesn't

seem real. I think we need to make people understand the consequences are real.

You need to convey that message: yes it does affect everybody.

Diego had similar thoughts in terms of the ineffectiveness of fear appeals:

I think scare tactics can do two things: I think they can either scare you away from

it completely, or it gets so scary that you ignore it completely. When it gets that

extreme, when it's presented to you like that, I don't think you can rationally

engage in sexual activities with that being in your mind.

Virginia made a very good point in terms of scare tactics feeding into the stigma

surrounding sex and sexual health: "I think it also feeds into the culture we have of not

talking about it. Like, if you do these things, bad things are going to happen to you."

Finally, Kyle made a very interesting proposition in terms of what appeal would

resonate the most with young adults, claiming that maybe a guilt appeal would be more

effective:

I don't know about the scare tactic. What resonates with me…the scare tactic

doesn't do it all that much, people have some degree of an immortality complex,

we don't think it is going to happen to us. However, I think one thing, and I don't know why, or if it's just me, but maybe using a guilt motivation, saying that you're having sex with other people, and if you are infected you are spreading it to them. And that to me seems more effective than just scaring people. I don't really know why, it resonates more with me.

The power of the personal story/narrative. Lastly, participants believed that hearing personal stories from relatable parties was an effective way to get young adults to think about sexual health. As Sandra claimed, "Having people come around and speak to people. Using real stories, people can relate to it, a touching story, something that's happened, that's when people remember it and want to learn about it." Henry had similar thoughts, and stated "hearing stories is something that definitely would change your thought process. Maybe a case study or something like: Look what happened to this girl or this guy in this situation."

For Diego, having a personal touch is what drives young adults to pay attention to sexual health messaging:

Obviously you're limited to how many people you can reach with a method like that, but definitely the personal thing is the way to go. A personal connection is the way you're going to change their views about things. The only way you can completely change their ideas is with a personal connection. They need a motivation to and you won't have any motivation if it's impersonal.

RQ2: To What Extent Do Young Adults Identify Their Sexual Health Information Needs Online?

There were several ways that the participants identified their sexual health information needs through the online space, by taking several factors into consideration. These factors included (1) going online for minor health issues only; (2) making sure that the online activity is anonymous and secure; and (3) taking everything that is online with a grain of salt and being cautious about what information is being posted.

Online information seeking is for minor health issues only. For many of the participants, they sought out information on the Internet for minor health issues, feeling that the channel was inappropriate for more serious conditions and ailments. As Nancy stated:

> For minor things it definitely can be helpful like colds or anything like that, but I feel like it gets to be something sexual like you think you have an STD I would rather not use the Internet and probably go to a health professional just because that's kind of a little bit more serious. I would say because you don't know. A computer can be good for oh I have a red eye can you help me fix that, but if you're having something that you think is a serious thing, you don't know who's on the other end…who's giving the information out on the computer.

Wes had similar thoughts, and said, "I think it can be helpful for a quick thing. It depends on the situation. If its something serious, I don't think you should turn to the Internet, but if its something you need to clean up, something minor, the Internet can be helpful."

Two of the focus groups talked about this idea, with one of the groups discussing the following:

Leslie: If you go on the Internet you're not looking for a cure for a disease, it's more for general remedies, common knowledge. You don't look for a cure for cancer.

Rowena: So it depends on the seriousness of the issue?

Nelson: Yes, for more minor things.

Brenda: It's good for introductory knowledge to see if you have something before you go to the doctor.

The second focus group had a very similar conversation about this idea:

Katrina: I think it's a good starting point if you don't know something and want more background information, but I wouldn't see it as the end-all-be-all.

Rita: Especially forums. It's a starting point but not a final decision by any means.

Robert: I think it's good for a simple question. People tend to self diagnose.

Sarah: The Internet is good for something more common. Cold vs. Flu. I wouldn't go it I wanted to know if I had cancer. The Internet is good for more common things.

The anonymity of online information seeking. Many of the participants turned to the Internet for sexual health information due to the anonymous nature of looking up information about a condition or disease. Several of them embraced this idea of having anonymity when searching online. As Matt so bluntly put it, "I don't go to someone. Why suffer the social embarrassment when you can go on the Internet?" Diego argued that having this option was a great benefit for young people who need to search for health information, especially sexual health information: "If people know how to search online, that means at this day and age everyone can do it instantly, from their own home and if

130

they want to, or are embarrassed about it, it is impersonal, and they don't have to talk to anybody…well not directly." Angela used the possibility of running into someone from campus as the main reason why she would rather go online:

> The biggest benefit is you can do it and nobody has to know about it. Here in [our city], the Planned Parenthood is literally right by [my university], like right by our school. There's a chance you could run into somebody you know there…if people see you in there they're going to be like, 'what is she doing here/what is he doing there?' 'Do they have an STD?' and then you're going to just be worried like 'oh my gosh what if they tell somebody' and it ends up on Twitter. It's just so many things. With the Internet it's just from [the] comforts of your own home and nobody has to know about it.

Nancy had similar thoughts, claiming that people are less likely to seek medical attention in more public venues where they could risk being seen by someone they knew, especially if it pertained to their sexual health: "I think people sometimes especially if it's sexually related can be afraid to go to a person and speak to them face-to-face and they would rather just find as much information on the Internet as possible without having to talk to anyone."

Take everything with a grain of salt and be cautious. At the same time, however, some of the participants discussed how cautious one has to be to search for health information online, especially pertaining to their sexual health. As Virginia explained:

> You just have to be really choosy and really cautious about what you take advice from just because anyone can put up a website and say anything. They don't

actually have to know what they're talking about…I take those with a gigantic grain of salt. Also with maybe if something says something completely ridiculous that I know not to be true.

Matt argued that there are certainly benefits to using the Internet for health information seeking, but claimed that it shouldn't fully replace meeting with your doctor. He said, "The Internet is a credible source. A lot of people may not view it as such. They may go with the stereotype that you can't trust anything posted on there. It shouldn't be the end-all-be-all…it needs to be solidly supplementary to your doctor."

For Dave, knowing how to properly use the Internet is half the battle. He also argued that your doctor should have the final say on what is going on, and said, "Knowing what to search for, some people don't know what they're looking for. Basically not having the information. You can speculate what it is, and at the end of the day the computer can only tell you so much. The doctor knows, that's what they went to school for."

RQ2.1: What Cues to Action Motivate Young Adults to Seek Sexual Health Information Online?

There were several cues to action that motivated the participants to seek out sexual health information online. These included (1) curiosity about sexual health topics; (2) freaking out about some potential ailment; (3) avoiding doctors; (4) using Google or WebMD; and (5) building an online community around sexual health.

Curiosity about sexual health topics. Participants said that they sought out sexual health information because they were curious about certain things, whether that be symptoms, certain aspects of disease, or contraception. As Mandy stated:

132

A lot of curiosity and wanting to avoid certain things like 'What should I do?'

'What should I use' 'What should I think about?' Then just the overall health

about it, how to stay safe…how to be more knowledgeable about it so that I know

what I'm doing and not just messing around.

Angela's curiosity was usually triggered by something she saw on television:

Probably like if I'm really curious or if I've heard something on TV. Like if I hear

something about an STD on TV, I'll go to the Internet and see if it's really true.

I'll seek information about things like that, but I guess that's it. Its mostly when I

try to find information if I'm just curious about it.

Elizabeth relayed a personal experience where she was motivated to search by an onset of

strange symptoms:

Well once I was having strange symptoms, I didn't know what it was, so I did a

search and thankfully it was fine. You just gain a lot of information like that. I

was offered information from my family during this conversation just for my own

knowledge of what could happen. Just curious I guess…I would have a greater

knowledge base of what it's like so I could identify something if I saw anything.

As for Matt, it depended on whether he sought out information based on curiosity or if a

situation sparked that curiosity: "It all spawns out of curiosity, but sometimes the

curiosity is spawned out of an actual scenario. If I feel I'm suffering from certain

symptoms, or I hear something on the news, or there's something I want to know about."

I seek because I am freaking out. When not motivated by curiosity, the

participants also sought out sexual health information because they were freaking out

about something, whether it is for their own personal health or a friend's. As Diego said,

"I've had friends who have freaked out, and that's a good time to go. Usually it's after something bad happens or a very high threat of something bad happening, that's when you go for that information." Renee had similar experiences, saying she would turn to the Internet "I need it, if a friend is freaking out or if I just come across it I'll read it too, but I would say it's only like an as-needed basis."

Avoiding interaction with doctors. Participants also turned to the online space for sexual health information because they felt uncomfortable going to a doctor. Tina discussed these feelings that many young adults face when seeking medical attention from a physician:

> You need to go to a doctor and clinic to get what you want. When I go to a clinic I feel out of place, everyone knows you're there for a reason and you get kinda scared. I want to avoid that feeling, so the easiest way [is] to jump online. But the only way to get credible information is going to the doctor's office.

Katrina had similar thoughts, and said, "Sometimes a lot of people are embarrassed, but I feel like with the Internet you don't have to go out and actually talk to somebody about it, you can just find out on your own." Virginia also agreed, and said, "I think it also helps the people that maybe wouldn't be comfortable asking someone. Like they can just look it up on their own. I think that's great, but it does come with some risks."

Two women from one of the focus groups talked about the benefit of searching online for sexual health information:

> Sarah: [I search] for anonymous reasons. If there is someone that you don't have to talk to or you don't like going to your doctor. There's a lot of security on the Internet, it doesn't have to be you.

Nicole: I was gonna say the same thing. You can flat out ask your question without beating around the bush to see if your doctor understands. You hope someone will respond to you educationally.

The ease of Google searching and WebMD. When asked how and where they searched for sexual health information, the majority of participants mentioned either a random Google search, or using the well-known health website WebMD. According to Alex: "I'll Google most of the time if I've got symptoms…I'll just throw them into Google. Other times I'll go to just WebMD. Google's pretty much my primary information source for everything." Matt likened the search to a journey he takes online:

The one that I can name off the top of my head is the stereotypical and cliché WebMD, but beyond that I do Google searches and I go through the results and I try to find information that way. I use the various related sites I find on those sites. I don't go to sites specifically, I tend to go on the electronic journey, I Google and follow links and I find info through that source.

Dave had a similar preference to Google and WebMD and said, "I know a lot of people use WebMD, but if I hear something interesting, maybe on TV, I would usually Google it. Those would be the ones. Search engines come up with recent and relevant information." Kyle also talked about using Google for searching health information: "I would probably Google search, but I'd probably make it a smart search, and eliminate things. Get good results. Sometimes I'd search for health stuff I wouldn't have because I'm interested in different conditions, so in that case I'd go to WebMD or something like that."

Building an online community around sexual health topics. Another reason why young adults were motivated to search online was because of the community that builds around various health topics that allows them to ask questions and share information. Nancy said:

I think in some ways you can find someone…I don't even know they have those forums where someone can describe exactly what they are experiencing and other people who have gone through the same thing can comment back and just talk a little bit about it.

Philip agreed with Nancy's point, saying, "It's nice just to have everything there, just to feel relieved when you feel a little nervous. Then you can see if other people are also experiencing the same symptoms you are, what they're doing or what they did."

One participant, Katrina, said the community online is useful because it allows people to relate to each other and discuss their conditions:

I would think that on a more personal note, people that can relate to one another and talk about their health issues, [and] can help others who need the same help. It can help people just reach out to people more. I would say focus less on social media as a place to argue and more on it as a place to actually help. There are so many people out there and there is so much that they need to know that I think social media would be awesome if people would use it for its benefits instead of arguing and taking it for that.

Domenic uses Facebook in particular to crowd source friends and family in order to get opinions on certain ailments he's had:

136

I've done crowdsourcing on Facebook, like 'hey, I have this weird blah blah blah, has anyone had this before?' And when I use the Internet, I use it as a litmus test to see if I need to go to my doctor, if this is actually serious. Same thing, I crowd source, had any of my friends had this before, is it serious enough that I need to go to my doctor, that sort of thing.

RQ2.2: What Constraints Inhibit Young Adults from Seeking Sexual Health Information Online?

Although the online space offers many benefits for young adults seeking sexual health information, the participants also discussed the constraints of using online channels. These constraints that posed challenges to the participants included (1) credibility issues with online sources; (2) information overload; (3) the tendency to overanalyze online information, leading to what could be incorrect self-diagnosis; (4) avoidance of searching online out of fear or embarrassment; (5) the individualistic, personalized nature of sexual health, which makes searching difficult; and (6) lack of knowledge or awareness about effective searching or different sexual health resources online.

Credibility issues of online sources. One constraint that the participants faced is determining whether or not an online source is actually credible. The participants discussed issues with verifying the information they find on the Internet and determining the source of that information. As Tina discussed:

Finding a credible source [is a challenge]. Making sure it's verified. It's hard to determine what's a credible source. I mean, they could take it from WebMD and put it on their blog. But you never know, so it's really hard to know what's

137

credible. I usually stay away from self-edited pages like Wikis and blogs and people's Facebook pages. I go to doctor accredited sites usually, yeah…anybody can be a journalist now, anyone can post on anything, and post their own personal opinion. I can go online right now and post my opinion on anything but that doesn't mean that I'm right.

Angela had similar thoughts and talked about finding credible, reliable sources:

The biggest challenge is probably just making sure what you're looking at is credible. That's probably the biggest challenge and knowing where to find information. That's probably the biggest thing…is this information credible?

Matt talked about the pros and cons about searching for good information on the Web:

The Internet can be a great tool and a great detriment at the same time. Pretty much good and accurate info that's out there, there's also a significant amount of non-credible information out there. It's important as long as proper search parameters and taking everything with a grain of salt then you can really use the Internet to the function that optimists like me can use it for.

Information overload. Information overload was another constraint faced by the participants, which simply refers to the sheer amount of information on the Internet. As Peter stated, "There's no end to the Internet. You could search all day for information and barely scratch the surface." Renee had very similar thoughts, and said, "You can get a ton of information, just information overload. You just get so much information. You all of a sudden have one symptom and then you think you have all these other ones. Then if you go to a site that's not credible you get the wrong information." Kyle discussed information overload as a relatively new phenomenon facing health information seekers:

"With anything online, the problem the wealth of information, some of which is trustworthy, some of which is not. It's a totally different world than a generation ago…you can get absolutely anything you want online, pretty easily."

Overanalyzing/self-diagnosing. For many of the participants, seeking sexual health information online can be a challenge because it enables users to overanalyze results, leading to self-diagnoses and a general "freaking out" about conditions. As Amber said, "You might start reading some website that looks totally credible and then it starts telling you that you have a headache, but then it's because you have a brain tumor and you're going to die in the next three months." Domenic talked about the dangers of seeking sexual health information online: "It can also be dangerous. People become hypochondriacs, they think, 'oh crap, I have all these things.' So I think it can be a valuable tool, but it shouldn't be used alone. I think you need to consult with a medical professional, you can't just do it yourself"

Frank gave some valuable advice in terms of how to avoid this over analysis: "…that's where madness lies. Your rash will turn into skin cancer very, very quickly. Take things with a grain of salt because the Internet will emphasize the worst possible case scenario." Debra relayed a personal experience where this notion became very real: "For instance a couple months ago I had extremely bad diarrhea [that] accompanied my period and I was like I don't know if this is normal, this is pretty bad, so I Googled [it] and I had this whole thing where it could be cancer or I could be pregnant and it was just lots of really scary outcomes."

Another participant, Melissa, talked about the vicious cycle of self-diagnosis that could accompany online health information seeking:

A lot of times you can freak yourself out and try to start showing symptoms you didn't have before because you read something. I feel like you could kind of diagnose yourself with something that you might not have. You might start seeing symptoms that you don't really have. And just start freaking out even more.

Avoidance. Many of the participants talked about avoiding the Internet out of fear of finding out that they have some sort of condition or disease. As Diego said, "Some people aren't ready, they have some sort of fear, they don't want to look online. They don't want to know." Kyle talked about how this fear factors into not wanting to get tested for STDs:

There are two reasons why people don't get tested. The first reason is that they have apathy and don't care about getting tested. The other reason is this fear of knowledge. Once you know you can do something about it, but once you know you can't ignore that knowledge. You now have to. That's really really scary. We need to make it not. We need to internalize this notion that knowing is better than ignoring.

In another interview, Virginia discussed the ease of avoiding the Internet, which ties into the invincibility/immortality complex held by a lot of young people:

I think part of it might be especially if you're searching by yourself. If you find something that maybe scares you. So like if my friend is searching about syphilis and she finds all these really really bad things. She's kinda like the whole 'hear no evil, see no evil' thing. Like she's just not going to find out because she doesn't want this to happen to me. And I think that there is really…I don't wanna say crucial, but it's an important factor. The anonymity of the Internet and you know

what happens you can just say, 'oh no!' and close the window and make it go away.

Sexual health an individualistic construct. For many of the participants, one of the challenges of seeking sexual health information online is the notion of sexual health being a very individualistic, personal issue that makes searching difficult. As Sue said, "It doesn't cater to the individual. There is no way to put in exactly what you're going through when searching." Elizabeth had similar thoughts, stating, "The computer is not a person and doesn't always understand what you type in. It doesn't always understand exactly what you're looking for." Others talked about the challenges of finding tailored, personalized information, which is what Erica commented on:

> I think some of the downsides about it may be that some of stuff you read on the Internet may not be your exact symptoms or a lot of STDs don't have symptoms so if you read the symptoms that are like discharge, this and that, then you might think I don't know if that's exactly me. You can find the information, but I don't know if you can personalize the information.

Domenic had similar thoughts to this and said, "Your body is complicated, there can be various explanations for different things, there are different causes for something. I don't think you should rely solely on the Internet for health."

Lack of knowledge/awareness. The final constraint that faced the participants was a general lack of knowledge about how to search for sexual health information, or a lack of awareness about sexual health campaigns that could prove to be useful to them. As Eric stated, "I would say probably knowing where to look. You can use Google for just about anything nowadays. I would say a big part of it is people not knowing exactly

where to look or what to do once they find out." Bridget claims that there is a lack of focus on the college-aged population in terms of getting sexual health information out to them:

> It's sad to say a lot of people just Google things. If I think sexual awareness for college kids, I cant think of a single organization at the top of my head that's trying to do that, or trying to associate themselves with that. I feel like branding hasn't been done, maybe that would help.

This problem was also mentioned by Denise, who said that sexual health information in general needs to be more widespread and accepted: "If it was just more proactively on the Internet you could see more often it would be more acceptable to see. If you see something that's kind of abrupt just because you're not expecting to see something for health services."

> Erica argued this information should to be shared more frequently, especially on social media channels such as Facebook:

> I feel like maybe just some awareness. I saw a lot of people post about World AIDS day on Facebook so maybe if you had liked those pages or some of your friends were really health conscious they could raise your awareness or knowledge. I guess it depends on how credible you think your friends are, unless you've liked a page and it's a clinic or a specific campaign then maybe you would trust what they post. On Facebook I've liked a Campaign to Prevent Teen Pregnancy and they'll post statistics and stuff so I guess that's health information… just awareness of things.

RQ3: How Do Young Adults Make Meaning of the GYT: Get Yourself Tested

Campaign?

After reviewing the online materials of the GYT: Get Yourself Tested campaign, the participants were asked a series of questions that pertained to their perceptions of the campaign, their opinions on different aspects of the campaign, and their recommendations for improvement and future dissemination of the campaign materials. A number of themes emerged surrounding the meaning making of GYT, including (1) confusion about the target audience; (2) the campaign's ability to motivate young adults to getting tested; (3) the mixed feelings surrounding MTV as a campaign sponsor; (4) the hesitation and potential embarrassment surrounding sharing GYT on social media sites; (5) who the perfect GYT spokesperson could be; (6) thoughts on incorporating a more realistic appeal to the campaign; and (7) suggested campaign tactics for the future.

Confusion about target audience. According to the developers of GYT, the campaign is targeted for young adults under the age of 25 years old, with the majority of outreach to college students on various campuses across the nation. However, based on the campaign materials, there was some confusion as what age group GYT is targeting with their messaging. According to Angela:

 I would say probably as young as 14 to in the 20s like 21 or 22. I think it's a

 broad range of young teenagers to more mature over 18 year olds. I wouldn't say

 even like 30 year olds because when you're 30 you already know about all of that,

 basically you probably do. That's what I think. That's a pretty big age range,

 probably like 14 to 22.

Several other participants felt that the campaign was for a much younger demographic, such as Bridget, who said, "I felt like the website kind of didn't really talk to me. I feel like its targeted for maybe a younger crowd, maybe middle school/freshman high school." Philip had similar thoughts, and said, "Teens…high school age to maybe early college, whoever watches MTV, even younger than that. I guess getting people to know about these things even earlier would be even better."

There was even some disagreement among the focus group participants in terms of who exactly GYT is targeting:

Gary: Our age.

Charles: Late teens 17-18

Nicole: Maybe college age and maybe more 16-20

Jessica: College and high school age.

Robert: I saw MTV and cartoons and I thought 12-15.

This idea of having cartoons on the GYT website also confused Tina in terms of the target demographic, as she said, "I would probably say early teens, so 16 to early to mid 20s. Because of the cartoons they have drawn on there."

Ability to motivate young people to get tested. Some of the participants felt that the campaign materials were motivating and empowering enough to move young adults to get tested, particularly those who were anxious about getting tested. As Angela shared:

It almost makes it seem like the way that everything look because some people feel like oh its going to be painful or scary, but the website makes it okay. It's okay for you to get tested. It's nothing to be embarrassed of or ashamed of. I thought it was pretty motivating.

Erica believed that the materials did a good job of moving someone who was already leaning toward getting tested by giving them the information they need and alleviating fears and concerns:

> If you were looking up the website, maybe you're already leaning towards getting tested and this would be a good way to reduce the lingering worries you have. I think that if you were leaning towards it, this would be a good resource just to like taking you over the edge and taking you there.

For Sandra, she stated that the materials emphasized the importance of getting tested, no matter what:

> Yeah, I know a few of my friends haven't been tested and they are freaking because they think they have an STD that's why they aren't getting tested. The website shows no matter what you should get tested because then it can show you what you can do. No matter if you do or don't you need to know. It shows you everyone should get tested, no matter what.

MTV as sponsor? There were mixed reactions from the participants when they saw that MTV was a major sponsor of the GYT campaign. According to some of the participants, like Bridget, this could cause a huge disconnect between the target audience and the developers of the campaign:

> It's sponsored by MTV and that's really not my thing. I think if that was for a younger crowd, a more mainstream crowd. I don't think college kids are listening to MTV anymore, not the ones that I know of. I feel like it's trying to reach an audience. I see a lot of like drawings, but for me I feel like for college kids or for

the professional crowd, more graphics, but graphics in the sense that [the

campaign developers] don't draw them.

In addition, one of the focus groups had a conversation about MTV being the campaign

sponsor, and offered alternate sponsor options that might resonate more with the young

adult audience:

Gary: With MTV they have Teen Mom to promote, but also looking at shows like

Jersey Shore that promotes what you shouldn't do so it takes away the credibility.

It needs to be across the entire network to be effective.

Rowena: So would you say that they are being hypocritical?

Gary: It is. I would be less likely to show this website because they show you

what you are doing and not be doing.

Julio: For me, if it was CNN or something. In terms of music channel VH1

maybe. If it were CNN or something I would believe it more.

On the other hand, there were some participants who were in support of the MTV

sponsorship, and even commended MTV for tackling such an important issue with young

adults. As Elizabeth said:

I thought it was good that it was out there and I was definitely surprised and

impressed that it was on MTV. I did not expect that, for them to be that proactive.

I think they're able to reach a lot of young audiences like that so that was

effective. I think they should do that on a lot of frequently visited sites for kids, so

younger people.

For Neil, he was a little skeptical about MTV's involvement with the campaign, but

thought that it was an important and wise move: "I was kind of skeptical because it was

from MTV, they target teens but they also have shows that are controversial because of sexuality, like Jersey Shore. They almost exploit teen sexuality. I was very surprised at how informational it was. They did a really good job."

Embarrassment surrounding sharing. During the interviews and focus groups discussions occurred revolving around 'liking' GYT on Facebook or 'following' GYT on Twitter and whether or not that would cause some sort of embarrassment or fear that they are associated with an STD, as described by Jack: "In a way people could use Facebook to go into a negative aspect and the world could see and my reputation is tarnished." This notion was also brought up in one of the focus group discussions:

Anne: People can see that you liked it and you can get embarrassed.

Brenda: It's already taboo to see someone pregnant from high school. If that's the big deal on Facebook I don't want anyone to know anything else about my personal life.

Leslie: It's more public…you wouldn't want people knowing they're looking there.

Heather: Yeah, if you like it or retweet it they might think you have an STD.

However, not all of the participants felt this way. Some of the participants didn't think that it was that big of a deal, and was probably more of an issue with younger teenagers than with college students. As relayed by Erica:

If you were a younger teenager, maybe that would be more of a concern, if all your friends were like I saw you liked that page, what's that about? For someone my age that's in their mid 20s or early to mid 20s, I wouldn't care if my friends

147

saw that I liked that. If they asked me about it I'd just tell them, 'yeah I thought

this was interesting' or 'yeah I got tested.'

Alex agreed, and said that it's a problem for younger teenagers due to the stigma

surrounding the topic: "This isn't the sort of page a teenager is going to go out and say,

'hey you should totally like this page about sexual health.' There's a certain stigma

attached to it especially for teenage girls like, 'why is she sharing this sexual health page?

She's some sort of hoe or something.'"

Finally, for young adults who are still hesitant to show their public support of

pages like GYT, Mandy offers a type of solution:

If there's something that I like that I don't want people to know necessarily, I can

always just keep them there without 'liking' them, if that makes sense. You can

go visit the page and save it in your bookmarks and go to the page every so often,

and then it won't be a Facebook notification that this person went on this person's

page, you know? It'll just be discreet. But if it's not really that big of a deal, then

go ahead and 'like' it.

The ideal GYT spokesperson. For many of the participants, a trustworthy

celebrity emerged as the ideal spokesperson for the GYT campaign, especially a celebrity

within the age range of the target demographic, someone that Domenic claimed is one

"who young people can relate to, but is recognizable." As Dana stated:

A celebrity to show that they're getting tested, but then it makes you concerned

like maybe that person has an STD or they had one. I think that someone who's a

random person on the street who was young and in the age group that said they

went and get tested, if they did it then anyone can. It makes you trust it more.

Nancy felt that a male spokesperson would be more effective than a female one, arguing that men are typically not associated with promoting healthy sexual behaviors:

> I think…any type of singer or actress, any type of celebrity that has majority followers in the age range that I said, 15-25. I think having a guy do it more than a girl would kind of be cool because I feel like girls are always more in my mind attached to being obsessed about their health, but if a guy came out and said the importance to do this, I think that would really show how important it is.

A lot of the participants mentioned Justin Bieber as the ideal spokesperson, such as Angela:

> I would say the best spokesperson is somebody who looks like the age range that you're trying to target. If it is the range of 14 through whatever, somebody who's that age and maybe even a celebrity like Justin Bieber because everybody loves him. Or just someone really popular who hasn't been in trouble, like somebody who younger kids admire. Make the spokesperson appeal to them because they feel like they're like them. That could be one way to make it more appealing.

Diego claimed a celebrity like Bieber might be effective because young adults wouldn't expect a sexual health message to come from him:

> If I had a choice of anyone, probably young movie stars or someone like Justin Bieber or a very popular icon. I think it would be effective if you have someone who is very distant from it, the last thing you think of when you think about Justin Bieber is sexual health. If it's someone people like and respect and if the message is something shocking, then I think it will stick in their minds.

Peter agreed with the Bieber choice, mainly because it is more difficult to pinpoint a well-known celebrity who is going through an issue with their sexual health:

> It's so tough because I don't know off the top of my head any huge celebrities who unfortunately are still alive and kind of dealing with it. Honestly I don't think it would have to be someone is necessarily afflicted with it. If Justin Bieber came out tomorrow and said I am going to start a foundation for AIDs research, think about what that would do. I just don't know who's going to step up and kind of be the next person in that line.

However, past spokespersons were also mentioned who have been successful in championing the sexual health cause, particularly Magic Johnson and his announcement of having HIV/AIDS. This impacted a number of participants, such as Ed: "Obviously, the best spokespeople or the most common are celebrities. The one off top of my head he's been used for years now, I'm not that old and I still recognize the name and everything, is Magic Johnson. I'm sure that's a classic answer, but any kind of celebrity that's willing to go out there."

One of the focus groups had a discussion about a GYT spokesperson, and both Bieber and Johnson were mentioned, among other celebrity icons:

> Andrea: I want to say someone like Kim Kardashian. Someone famous for promiscuity would be a good person to show that they are behaving themselves.
>
> Rita: Jane Lynch. She's a really good spokesperson.
>
> Katherine: It would be good to have someone who was previously promiscuous.
>
> Andy: If I saw a famous person like Paris Hilton, then I would see it as a PR stunt. I would believe Justin Bieber over Paris Hilton any day.

Robert: If it was the celebrity who had the disease, someone like Magic Johnson and HIV/AIDS.

Using a realistic appeal. When asked what would be the most effective tone for GYT to take when sharing sexual health information, participants were in favor of a more realistic, no-nonsense approach that is open and frank with young adults. As Nelson in one of the focus groups suggested, "People don't want to be treated like children. So if you present it in a more appropriate manner you can get a bigger response." Domenic had a very similar recommendation, and said:

Young people don't want to be talked down, they want to be talked to like adults. It shouldn't be scolding or scaring, it should be a frank conversation, that you can have sex and that's fine, but you need to be aware and this or this can happen.

Another participant, Diego, argued that the realistic approach is the best and most effective approach when it came down to developing a campaign around this topic:

I think you have to take a more realistic approach and realize that people are going to have sex, and there's ways to make it safer and they have to know about these things. You have to know how to protect yourself and really present it as a realistic possibility as opposed to…I think they act like people don't have sex. You have to have a realistic point of view; this does happen and this is what you need to do if it does happen. When you come at it from a more realistic view, campaigns can be very effective because that's how you get to a lot of people. And usually campaigns are very simple in their message, there's usually one thing they're trying to push. So you're not overwhelming people with information.

Recommendations for future campaign tactics. Finally, participants were asked to offer suggestions and recommendations for campaign tactics GYT could use to reach out and engage with young adults in the near future. These tactics included campus-wide events and tabling, interactive features on the website, and outreach to sexual education instructors. In one example, Amber suggested having informational, on-campus events:

> You could set up at different colleges and different events where you could host different clinics or even just set up an event where it encourages people to come and get information. I don't know what you could do things that are relatively cheap since it's a non-profit, you don't want to do expensive stuff. Things that would encourage people to come and get the information and sign up for different clinics to get tested.

Bridget had similar thoughts in terms of campus outreach, and suggested that having GYT participate in tabling where they hand out information might be useful:

> We could do in person on campus like tabling, maybe doing something like hand out free condoms or free STD testing and include like a little brochure for whatever website. I feel like there's some resources on campus that give information, but aren't necessarily out in the public. I feel like its one of those things you have to come to them. Like I know the women's center here at [my university], they have a lot of information, but you wouldn't know about it unless you came to their offices…same with the health center.

Virginia took this idea of a campus event even further and suggested a more wide-scale event such as a music concert:

I think you would have to have some kind of event. I don't even know what that

would be. Some kind of event to get some publicity around it to get people to go

'oh, what is that?' Like make T-shirts or something. Like give it to famous

people, like 'can you get your picture taken with this?' Do something with music.

Yeah, like a concert. I don't know…something like that. I think younger people

pay attention to music. I don't know, maybe like you can get an album or

something. Not about sex, but framing it in a totally positive way.

On the other end of the spectrum, Elizabeth thought of something more smaller scale and

recommended guest speakers coming to campus: "I would probably offer maybe once or

twice a month the option for various guest speakers to come talk on the issue. To come

on campus and have a speaking event, and publicize that so students could come and

listen and get more information that way with local doctors there probably."

In terms of the website content, Tina made recommendations in terms of more

interactive, engaging features:

More interactive, it sounds elementary [but] if they have something to do,

watching a video, submitting a video, submitting an anonymous comment, a chat

with a doctor. There's a lot of websites and companies allow you to ask questions.

That might eliminate if they don't like face-to-face information they can get

information from a credible source. Have someone they can actually relate [to].

Dave agreed with this idea, and called for more visual components to the campaign, such

as more videos:

Something more visual. They're just giving you stats. Maybe people in our age

group who have gotten tested. A lot of people are visual. I'm visual. I don't want

to hear it or read it. Like an intro video on what the website is about, here is what people your age are doing, go get tested. [Having] videos of actual people getting tested. Not a documentary, but people getting tested, smiling, people in there.

Pictures of people, young people, with quotes. Actually excerpts from someone.

Philip questioned where the majority of GYT visitors were coming from and suggested conducting evaluative research to determine where traffic flow is coming from in order to more precisely target those areas:

I wonder what the majority of the traffic is…if it is from iPhone or is it just from the website, Facebook, Twitter? Because that changes the way that they're actually reading this information, and whether its just people wandering. I guess depending on what's viewed most, you can put more focus on that since that's what they're coming to the site for.

Lastly, participants discussed changing the nature of sexual education in the United States, by reaching out to instructors and arming them with better tools to better equip students for making healthy sexual decisions. According to Peter:

I think that if there is sex education in K-12, there needs to be more than teachers standing in front of classroom writing on a chalkboard. They should come in armed with a pamphlet or flyer that says here is information from the CDC, take this, put it on your bulletin board, fridge and binder. I'm not great at thinking of these ideas but there are ways to get to kids without really having to go out of your way to devise certain ideas.

Neil had very similar thoughts, and said:

I mean for me it would really be [an] engaging, open discussion in health class. If you have a teacher that's 40 years older than you and lecturing at you about vaginas that's not very effective. I had a teacher that was very relatable that had discussion panels set up to talk about things…create an environment where people can talk about sex.

RQ4: How Do Young Adults Make Meaning of Online Health Information Seeking in General?

For the most part, participants believed online health information to be very useful, informative, and educational, and preferred getting this type of information online due to a variety of different reasons, including (1) the accessibility of information; (2) the time-saving nature of seeking online health information; and (3) the ability of this information to help verify what you hear from your doctor. In addition, the potential of social media for health was also discussed with participants, with the participants offering (4) recommendations for social media and health; along with a general (5) wariness toward using social media for health purposes.

Accessibility. Participants were favorable toward the online space for health information because of it's ease, convenience, and accessibility of information, as Jack said, "You can try to look up almost anything on the Internet and find almost anything on the Internet." Max agreed, stating, "It's always there. It's information you don't have to make an appointment with somebody or call somebody. It's always at your hands, it's on your phone, there's live talks you can access when you need health information, and you can go to WebMD." Matt was a huge fan of using the Internet to find just about any kind of health information he needs or wants:

It's an incredible plethora of knowledge right at your fingertips. Decades and

decades and hundreds and hundreds of research and information at your

fingertips. You can find anything. If I'm suffering from a serious illness it's not a

replacement for going to the hospital or making regular appointments, but it's

such a vital tool to help improve your general knowledge of health. Helpful

practices, helpful tips, helpful things to do to better yourself mentally and

physically.

Time saver. The participants felt that going online for health information is a

huge time saver that allows you to get information quickly, without needing to make an

appointment with their doctor, or to gauge symptoms while waiting to see a doctor. As

Mandy mentioned:

The availability, and you can access it quick. You don't have to call and wait for

your doctor to answer an email or wait a couple of days. If you want to go to a

reliable website, go to WebMD or something. If you have your information right

there, you can search it and learn more about it. It's just so quick and readily

available, it's so important.

Angela had similar thoughts, and said, "I think it's really important because a lot of time

you don't have the ability to just [be] like, 'oh let me call my doctor.' You can't just do

that just with ease without having to get an appointment or having to talk to a nurse

practitioner or somebody that's not really your doctor."

The participants in one of the focus groups also agreed, and discussed the issues

with having to make an appointment/wait for an appointment/go to an appointment:

Robert: When you go to the doctor's office you have so much to fill out, you're

waiting forever, it's a huge hassle vs. just looking it up on the Internet. I usually

go for what to do when I have something, not what I have. So for a cold, what to

do.

Rowena: So it avoids the hassle to see a doctor?

Tiffany: It can be a big deal, especially in college when you don't have a lot of

time. If there's more reliable sources on the Internet. You get sick more you're

around more people. It's higher on importance scale due to time constraints.

Cassie: If you're at home or at school, if you try to make an appointment. The

Internet can help with that if you have to wait a while to get to your appointment.

Sarah: It's quick and you don't have to wait to go to the doctor.

Verifies visits to the doctor. Participants claimed that using the Internet for

health information is helpful because it arms them with information that they can take to

their doctor, which in turn they can use as a second opinion or to cross-reference what

they are told by their doctor. As Angela stated, "I've had concerns about sicknesses or

whatever and then I'll get information from my doctor and then I'll go to the Internet and

a lot of the same things she says will come up." Elizabeth talked about this notion as a

pro of being able to search online for health information, and said:

Well, searching online…a pro would be just getting a general idea of what you're

dealing with and what you think you have so that you can take that information to

the doctor because ultimately if you do have something you should go to the

doctor. I think that's the benefit of searching…just having a general idea and

better being able to explain it to your physician.

Recommendations to incorporate social media. The participants offered some suggestions in terms of how social media can be incorporated into campaigns like GYT or future online health campaigns. Some participants gave specific examples by channel, such as Facebook or Twitter, while others had more general ideas of how social media can be used. For example, Kyle had some suggestions in terms of using Facebook:

> I think Facebook…if there was a group for a certain condition, a Facebook campaign would be extremely helpful. Just using Facebook as word of mouth among friends. If it's important. If you go to someone with friends, targeting certain conditions, that would be helpful. I would think Facebook would be a valuable tool.

Diego warned about people's perceptions of Facebook, claiming that some may not view its content to be valid and true. However, he also explained that it could be a useful tool if it were backed by credible health organizations:

> I think if health organizations would become more integrated with it and would actually become more supportive, like if they contacted the social media providers directly and create their own source of information and actually tried to use it to their advantage…not haphazardly put it together then they can make sure the health information being spread is accurate and not complete falsehoods.

For Matt, he sees the following of credible health sources similar to following other well-known personalities for any type of information, and that social media can be used as a way to share knowledge already being disseminated via other traditional forms of media:

…there are several effective ways it can be there. Functions where you're able to follow accredited associations, industry personnel, celebrities in the industry… I'm sure someone like Dr. Oz or other respected medical professionals, where they are regionally or nationally known are able to provide various information on their respected pages. If they want to link to published studies, or different health risks that have spread recently. I would think if social media were to be the most effective as possible it would need to be piggybacked by people of that level, people who have an influence, people with media experience, not just social media but media generally. So they can use their following and spring board it to social media to broaden their reach.

One of the focus groups had a conversation about the use of social media in health, agreeing with Matt's point and also offering their own recommendations for health channels they would like to see on social media:

Rita: Maybe if more doctors and medical practices started using social media more info would be out there like that.

Megan: If something similar to Google, [like] Google Med to type in symptoms to a tee [that] you can diagnose. I think that would be really cool.

Sarah: If health related sites promoted themselves on Facebook more. If there's an ad or promotion.

Katherine: It would be cool if doctors were on Facebook and you can Facebook IM (instant message) them. You can talk to them from [the] comfort of [your] own home.

Similar to a Google Med site, Nancy offered a suggestion in terms of what features this type of channel could provide:

I would say maybe like have some type of question answer… a place where someone could go in and type a specific symptom or a question or anything that they have about any type of sexually transmitted disease or anything and have some type of way they can get real answers directed towards their question, not just general information.

Wariness about using social media for health. However, in spite of the potential opportunities social media can offer to the participants in terms of their health, there were those who were a bit more cautious and wary about using the channel for health purposes. As Tina put it:

I don't think it can be used in a credible way. A lot of social media…people don't post the right information. People mostly use it for their personal life, I don't think it's informational, it's more recreational, so I wouldn't go on there to get health information.

Rose agreed, and said, "In a way there's that barrier of what's personal and what's not. I don't think a lot of people are gonna talk about their body and what they're going through online. I don't think it would be very helpful."

Elizabeth felt similarly to Tina and Rose, and felt that social media is too casual a channel to be sharing personal health information:

Yeah, I don't think its the best avenue to take right now like I said unless you really know the doctor personally…maybe he has a large enough portfolio that he would have a decent amount of followers to check out what he's putting out there.

Otherwise I think it'd be hard for people to trust that, it just seems a bit too casual

I think, which is why I think you would need to know them.

RQ4.1: How Do Young Adults Assess the Quality of Online Health Information?

There were a few criteria that enabled the participants to appraise sexual health information in a way that allowed them to make better health decisions. These tactics used to assess online health information caused the participants to fully evaluate the usefulness and accuracy of various materials. The ways that the participants were able to assess online health information included (1) their assessment of the credibility of online sources; (2) cross-checking and cross-referencing various websites for comparable information; and (3) evaluating various website characteristics that exemplifies whether or not they are looking at a reliable source.

Assessing the credibility of online sources. Several of the participants mentioned ways that they determined whether or not an online source is a credible, reliable piece of information. Amber claimed that sometimes some background research on the organization offering the information is needed:

I guess if you find out who posted the information on the website, and then if its a company that posted it, you can find out background research on that company. Its a lot of work, which is probably why I don't do it, but I guess you just have to do the right research to figure out what the background of each person posting that information is.

For Diego, he felt that pages that are pushing to sell products are less likely to be trusted:

It's more of an eye test. If it has motives, like trying to sell stuff with ads and has ulterior motives then no. And also there are a lot of sites that are backed by the

government or societies or even some colleges, and I think that anything that is backed by a strong academic place is going to be more reliable.

Other participants, including Virginia, Erica, and Matt, want to see websites from reputable organizations, and were more likely to steer away from personal blogs. According to Erica:

Maybe because I sort of have a working knowledge in health and human services, but I feel like I trust sort of those bigger agencies like NIH and CDC. I don't really trust something like if people have commented on something or a blog… I'm pretty skeptical on those things. I would trust something that had a more official feel to it.

Virginia also agreed, and said, "I think if they're affiliated with a legitimate or I consider to be legitimate organizations like Red Cross or Greater Than AIDs or GYT for instance, I would take those to be more legitimate or more accurate than some random person's blog site." And Matt claimed he wanted "to see industry accreditation. If I see that its being sponsored by large recognizable associations of health I'm going to trust it more. I don't want to see a random medical blog where some "doctor" wrote [a post] from Kansas."

Lastly, Peter gave some suggestions on what to look out for in terms of assessing online health information:

You would want to see a paragraph about breast cancer and then see at the bottom, written by X. You like to see your articles have weight to them with tables, statistics, etc. You want to see reputable sources quoted or cited in the article. I would like to see a bibliography or suggestions for further reading at the

bottom of an article. A lot of stuff on the Internet you can look at with a skeptical

eye. You really don't want to get bad information or inaccurate information.

Cross-referencing/cross-checking websites. Another way that participants

assessed online health information was by going to a number of different websites and

cross-referencing and cross-checking their information to see if they all match up. As

Peter advised:

> Don't rely on one specific source for everything and that doesn't even mean a
>
> form of media. If you're going to get your health information through the Internet
>
> go around to a couple different websites. If you were going to a doctor and heard
>
> something you didn't want to hear, you would want a second opinion. If you were
>
> looking up something online that doesn't agree with you, it shouldn't be a one-
>
> stop deal, it should be more of like what does this website say or what has this
>
> doctor researched about this topic.

Domenic claimed, "You have to be careful about what you see on there. I generally don't

rely on one source. If one person says something, I'll check it on a different site. Anyone

can post on the Internet. You need to correlate your results with other sources." Matt had

similar advice, and said, "There's a lot of good information out there but you can get

easily sidetracked by mediocre, bad websites. It's a matter of making sure the info you

find you pair with other credible websites in order to get a good, solid, general opinion on

something. To make sure everything meshes."

For Kyle, confirming information through other websites helps him assess to see

if the original information is actually credible and correct:

So if something sounds right, then I think I'd assume it is, then I'd take the

confirmation of other sites. So through looking at multiple unrelated sites that's

how I assess the credibility. If something sounds wrong, I'm going to assume that

it's probably wrong but also try to confirm that. Basically if something looks

credible I'll assume it's correct if it's online. If it doesn't sound credible then I will

also double check to see where this crazy information is coming from.

Addressing website characteristics. A final criteria in terms of assessing online

sources had to deal with different website characteristics, namely, the layout of the site

and whether or not the site has been properly updated. In terms of website layout, Angela

discussed how she checks to see if a site has a professional look and feel, and based on

that criteria, is able to better judge to see if the information is legitimate and credible:

For me, first off the way it looks. This is probably like weird, but, you know how

WebMD and even like the websites you told me to look on, how they look really

professional, like in the GYT website, it looks like whoever put the website

together probably knows what they're talking about. It's not just some HTML

page that doesn't have graphics or anything, like it looks good.

For Kyle and Diego, an important consideration is when the website has last been

updated with the most recent information. Diego claimed, "You really have to make sure

the information is up to date and that it's a legitimate source. I'm sure there are multiple

ways to deal with that…make sure that whatever you do has been confirmed to work."

According to Kyle, an updated site is very important, as the medical field is constantly

changing and evolving:

The problem is knowing which sources are trustworthy, and out of those sources, which has the most credible information. Because the site may have not been updated since 20 years ago, and we have so many advances in medicine. Knowing what's trustworthy, and then out of those, which are the most updated and comprehensive information.

RQ5: What Type of Public(s) Do Young Adults Constitute Around Getting Tested for STDs?

The participants in this study fall primarily into two categories of publics. According to traditional situational theory of publics categorization, the participants represented an aware public because they were (1) aware of the problem of poor sexual health, (2) faced a number of constraints to be optimally sexually healthy, yet still felt (3) involved in the communication surrounding the risk. In terms of the more recent iteration of STP as the situational theory of problem solving, the participants represented a closed-situational active public for these same reasons, while additionally practicing (4) high information acquisition, (5) high information selection, but (6) low information transmission.

High problem recognition. As previously mentioned in research question 1 and 1.1, the participants perceived poor sexual health to be a severe problem that they are susceptible to. This was mostly recognized through their personal experiences, sharing stories about friends or acquaintances who are dealing with an unwanted pregnancy or sexually transmitted disease, and their awareness of the financial and health burden that a mistake or bad decision can leave you with in the long run. In addition their awareness of the stigma surrounding sexual health and their ability to see sexual health's impact on

overall health demonstrated that the participants were able to see and recognize poor sexual health as an important problem that needs to be addressed.

High level of involvement. As discussed in research question 1.4, there were a variety of ways that the participants felt highly involved with the issue of sexual health. This also came from personal experiences, such as having conversations with their parents, taking sexual education classes in middle school and high school, seeking out sexual health information from a variety of different sources (i.e., traditional, electronic, social media), and being aware of the availability of information on college campuses. In addition, the participants made suggestions in terms of what could draw them into sexual health campaign materials and information, stating that fear appeals do not work with their demographic and emphasizing the use of relatable spokespersons and real-life personal narratives and stories.

High constraint recognition. The results from research question 1.3 displayed the various constraints that the participants faced in terms of trying to adopt healthy sexual behaviors. There were external constraints, such as the misuse of alcohol, the college environment, and ineffective communication, that inhibit young adults from making the best decisions in terms of sexual health. There were also internal constraints, such as a dislike toward condom usage, a lack of knowledge about safe sexual practices, and the invincibility/immortality complex that shaped the knowledge and attitudes of young adults that could impact them in terms of their sexual health decision-making.

In addition, there were a number of constraints in terms of seeking sexual health information online that hindered the participants, as was discussed in research question 2.2. The external constraints in this regard included the credibility of sexual health

information online that could give false information, the inundation of sexual health information that causes an extreme information overload in many young adults, and the fact that many online sources do not take the individualistic, personalized nature of sexual health into account. Internal constraints facing young adults included the temptation to overanalyze online sexual health information, leading to some hypochondria and self-diagnosis, avoidance of obtaining information due to fear or embarrassment, and a lack of awareness of resources readily available.

Closed-situational active public. In addition to being an aware public, the participants also represented a closed-situational active public. This was due to their levels of problem recognition, constraint recognition, and level of involvement, but it was also due to different communicative behaviors. Based on the responses of the participants, they engaged in high information acquisition, high information selection, and low information transmission. More specifically, the participants were (1) active information seekers, (2) active information forefenders, and (3) passive information sharers.

Active information seeking. According to the results of research question 2.1, the participants responded to a series of cues to action, which motivated them to actively seek out sexual health information online. These reasons were either due to a curiosity about a disease, or because of the ease of simply looking up information on Google or WebMD. Other reasons included searching because of freaking out about symptoms they or a friend may have, or because they are afraid of seeking medical attention from a health professional. Lastly, participants actively sought out sexual health information online because it offers a community of like-minded people who can share personal

stories and information in a non-judgmental, more causal way that may not necessarily be the case with other sources.

In addition, as was relayed in research question 4, the participants engaged in online health information seeking due to a number of positive benefits the Internet can provide to users. These benefits include the sheer availability and accessibility of online information, the time-saving nature of being able to search online without having to make a doctor's appointment, and the ability to arm oneself with questions and more information when actually seeking out medical attention from a health professional.

Active information forefending. Research question 2 provided evidence on how the participants are engaging in active information forefending. Instead of passively accepting all information at hand about sexual health, the participants were more likely to fend off information and evaluate its relevance to the problem before making any sexual health decisions or engaging in sexual health behaviors. The participants were able to accomplish this by only using the online space for more minor health issues that would not severely impact their overall sexual health. In addition, the participants protected their identities through remaining anonymous in their searching, and tended to be very cautious about what they find, as they realize that not everything they see on the Internet can be trusted.

In addition, the participants assessed the quality and reliability of information through various means, which was relayed in research question 2.3. Participants evaluated where their information was coming from, and were more likely to trust credible sources, such as well-known health organizations or academic institutions. They also went to a number of different sites to cross-check and cross-reference sources to

ensure that the information they were gathering was comparable. Finally, the participants assessed sites based on the layout and when it was last updated.

Passive information sharing. Finally, although the participants were fairly active in their information seeking and forefending, they were more passive in terms of sharing information. As was found in research question 3, some participants were hesitant to show their support of sexual health campaigns like GYT because they were afraid of being judged by others online. Mandy relayed this very real possibility in one of her responses:

> There are a lot of people who can post either negative things about…people are really hateful, they can post really mean comments about you. If you go on Yahoo! Answers and say 'Help me, I think I have syphilis. Can you give me some advice, like what to do?'…some people will respond to that question and be really mean, and that's something I wouldn't want to show her if she is going through that.

Additionally, the participants felt that young adults were less likely to share sexual health information on social media, as Fred said, "People won't share that kind of information. I don't see how or why people would use [social media] for that." Other participants felt the same way, stating that they were more likely to share a campaign like GYT if prompted by a friend or another peer.

Chapter 5 – Discussion

The purpose of this study was to investigate young adults' meaning construction of sexual health, sexual health campaigns, and online sexual health information by examining meaning of the GYT: Get Yourself Tested campaign. Theoretically this study aimed to situate HBM/STOPS in an online context, and to blend these two theories to develop a new model and apply it to the meaning constructions of GYT. A qualitative methodology was employed by conducting 50 in-depth interviews and five focus groups with young adults, which helped answer the U.S. Surgeon General's call for more research on sexual health issues (U.S. Surgeon General, 2001) and follows Power's (2002) recommendations to use qualitative methods to further explore the sexual health phenomenon. The findings suggest that young adults are aware of the problem of sexual health, but come across a number of internal and external barriers that prevent them from reaching their healthiest potential. However, the participants found that the online space was an outlet that they could rely on to arm themselves with information, but only after conscious assessment of online sources. This chapter offers a discussion of the research findings in light of previous literature and theory, campaign planning, and the development of a new model; and practical implications of the data are explicated. Future directions for this research, along with the strengths and limitations of this study, are also discussed.

Theoretical Interpretations for Sexual Health

The findings of this study offer some explanations in terms of how HBM/STOPS reveal young adults' perceptions of sexual health, the constraints they are faced with on a daily basis, their involvement with sexual health, the benefits of engaging in healthy

sexual practices, and their levels of self-efficacy surrounding the issue. Participants were aware of the stigma surrounding sexual health (IOM, 2000) and the consequences of unhealthy behaviors, as was demonstrated to them via stories and observations of their peers (Bandura, 1977). However, several barriers including ineffective communication (Kirby et al., 1994), social pressure (Rehm, Shield, Johardi, & Shuper, 2011), and unrealistic optimism (Weinsten, 1980) stood in the way of the participants from making the healthiest decisions for their sexual health. In addition, a lack of comprehensive sexual education (Guttmacher Institute, 2012) has influenced a number of participants in terms of how personally relevant they feel to the issue, and claimed that fear appeals are ineffective, but narratives could be useful (Reinhart & Feeley, 2007). The biggest benefits for the participants included being healthy and able to plan for the future by adequately protecting themselves and their sexual partners (Henny et al., 2012). Personal experiences, in turn, influenced the levels of self-efficacy that participants felt toward obtaining resources and getting tested.

Problem recognition/perceived susceptibility/perceived severity. Many of the participants recognized the problem of poor sexual health practices through their observations of peers their age who were dealing with an unwanted pregnancy or an STD. In a way, these examples served as a somewhat *reverse role model* for them – the participants were more committed to engaging in healthier sexual behaviors in order to avoid what has happened to someone similar to them. According to social learning theory (Bandura, 1977), individuals are more likely to model the behaviors of people who are seen as credible, and act in ways that allow for positive reinforcement. In this case, the participants saw the negative consequences of their peers' behaviors; therefore they were

171

more likely to *avoid* modeling those behaviors as a protection mechanism in order to not find themselves in a similar negative predicament.

In addition, even though participants were aware of the consequences of poor decisions regarding sexual health, the stigma surrounding the issue and society's reluctance to openly discuss the issue may lead to misperceptions of sexual risk and discomfort for young adults (IOM, 2000). In spite of the prevalence of STDs among young adults, which could be due in part to this discomfort and unwillingness to have open conversations with parents or physicians (CDC, 2010a), there is still a lack of a national dialogue on sexual health and responsible sexual behavior that is still sorely needed (U.S. Surgeon General, 2001). The participants recognized this issue and for the most part were unsure of how to remedy this problem. For many of the participants, they are hopeful that change is inevitable and likely, and society's hesitance to talk about sexual health will eventually shift as time passes.

Constraints/barriers. Though the participants were aware and cognizant of the issues related to poor sexual health practices, they were faced with a number of constraints/barriers that worked to prevent them from engaging in the safest and healthiest behaviors. One constraint that many of the participants dealt with was ineffective communication with sexual partners, either due to shame, embarrassment, or avoidance of an awkward conversation that "kills the mood." Though Kirby et al. (1994) argued for "life skills" such as strong decision-making, open communication, and good negotiation skills within a healthy sexual relationship, many of the participants struggled with these skill sets and found it hard to navigate within the confines of a young partnership. Whether it is a maturity issue or trying to figure out uncharted territory with

a new sexual partner, the participants did not feel ready or equipped to have these serious, yet important, conversations. One way this challenge can be resolved is through effective sexual health promotion programs, as research has shown that teaching these skills to young adults enables them to be more inclined to have open discussions about sexual activity, leading to more positive relationships and less damaging consequences (Panchaud et al., 2000; Schaalma et al. 1996; Singh & Darroch, 2000).

In a related vein, the college-aged participants felt particularly constrained in an environment were social pressures were high and reckless behavior was condoned and found acceptable. Alcohol consumption played a huge role in poor decision-making, as extant research has shown that larger amounts of alcohol intake and high blood alcohol content leads to higher intentions to engage in unsafe sex (Rehm, Shield, Joharchi, & Shuper, 2011). Participants struggled with resisting social pressure from peers and sexual partners that would not ultimately cause any negative social consequences, such as strained relationships or damaged reputation (Janz & Becker, 1984). They found themselves constantly evaluating these barriers and deciding what actions would be the best route toward positive outcomes.

Finally, the participants claimed that many young adults have an invincibility/immortality complex surrounding sexual health, and that nothing bad would ever happen to them. This illustrates a case example of optimism bias, or the tendency for people to be unrealistically optimistic about future life events (Weinstein, 1980). The concept of being unrealistically optimistic has been studied in sexual health contexts, with Maswanya et al. (1999) discovering that in spite of students being aware of the risks involved in risky sexual behaviors, they were still less likely to change their behavior due

to their perceptions that the risk will not happen to them. Millstein and Halpern-Felsher (2002) found an age effect on optimism bias, claiming that this mindset increased with age and was the highest among young adults. This was clearly depicted in the results, as participants attempted to make sense of why this mindset is the case with so many young adults and what could potentially be done to reverse this view.

Involvement. For many of the participants, their main source of sexual health information as an adolescent came from sexual education classes, and the reviews were mixed among them in terms of whether those classes were actually effective. Overall, sexual education in the United States is not as comprehensive as other countries (Guttmacher Institute, 2012), and this was quite evident in the diverse responses from the participants, who ranged from having abstinence-only education to more in-depth conversations about contraception and condom usage. One thing that the participants made very clear was the importance of a good instructor, as the instructor's views, values, and approaches to sexual education curriculum will ultimately shape the effectiveness of the program (Buston, Wight, Hart, & Scott, 2002). Additionally, the participants felt that sexual education needs to be implemented at a much younger age, as adolescents are becoming sexually active much earlier compared to previous generations of students (Witte, 1997).

But how can this education be made more effective? One tactic that was discussed with the participants is the use of fear appeals. Although Atkin (2002) suggests that fear appeals can be effective when coupled with efficacy messaging, susceptibility evidence, personal applicability, and credible content, the general consensus from the participants was that these appeals do not work with their age group. Witte and Allen (2000) argue

174

that fear appeals motivate audiences to action, but the participants argued that these

appeals do the opposite – they are more likely to shut down and ignore the message

because it is too over-the-top and shocking to even be considered. Instead, the

participants called for sexual educators and campaign developers to use a more realistic

tone with them, being upfront about the dangers of unsafe sexual practices, treating them

as adults, and not trying to scare or belittle them. Witte's (1997) focus group sessions

with inner city teens showed evidence of the utility of the realistic appeal, where her

participants argued that messages that frankly laid out the consequences of teen

pregnancy were the most effective.

A presentation tactic that seemed to resonate well with the participants was the

use of personal testimonials, or narratives to get the health message across. According to

Reinhart and Feeley (2007), narrative evidence represents "messages that highlight a

distinctive perspective on an issue and provide an elaboration of one person's experience

with the topic in question through a story, such as a case history or an anecdote" (p. 3).

Though the topic is still up for debate in terms of whether narratives are more effective

than statistical evidence (e.g., Greene & Brinn, 2003; Kopfman et al., 1998; Lindsey,

2005), the compelling nature of narratives has been appealing to health communicators

and campaign designers to use in their materials. For the participants, they argued that the

use of narratives, especially when it came to sexual health, would be powerful because

they could relate to the issue more, increasing their levels of involvement and personal

relevance to the issue. Narratives have been found to capture an audience's imagination

and can convey a large amount of information without being too overwhelming

(Kopfman et al., 1998), which could be useful in terms of disseminating sexual health messaging.

Benefits. The participants recognized the benefits of being safe and healthy sexually, and for many of them the benefits of engaging in safer sexual behaviors outweighed the barriers. This was mostly in part due to extremely positive benefits including having peace of mind, being in optimal physical health, ensuring a bright and prosperous future, and protecting the health of their partners. With their lives and futures on the line, the participants were extremely motivated to do what it takes to ensure that things are stable and fully in place. When it came to their sexual partners, many of the participants felt responsible for the health of who they engaged in sexual activity with and believed it was their obligation to be aware of their status to adequately protect them. This is especially true for men, whose motivation to protect significant others aligns with their sense of manhood (Henny et al., 2012). For the participants, these precautions were feasible, actionable, and ultimately efficacious, benefiting them and their partners in the long-term (Janz & Becker, 1984).

Self-efficacy. In terms of self-efficacy and whether the participants believed they had the tools that they needed to take actionable steps toward being safe sexually, these levels of self-efficacy differed among participants. First of all, there were differences participants in terms of obtaining sexual health information – participants who were still currently students saw campus services as an invaluable resources, while those who were recently graduated faced more challenges, which was remedied somewhat by what they could find on the Internet. This creates a more complicated scenario as opposed to

previous studies on HBM and sexual health, where perceived efficacy was found to be very low across the board (Hounton et al., 2005; Lin et al., 2005).

Secondly, the impetus and motivation to take steps toward getting tested also depended on the individual. Some of the participants were so hyper-anxious about "catching something," that they constantly got tested as long as they were sexually active, whereas other participants were much more blasé with a "let's see what happens" mentality where no action is taken until some sort of physical marker demonstrates the need to get things checked out. Thus in the case of sexual health there seems to be a continuum of self-efficacy that is impacted by personal preferences and experiences.

Theoretical Interpretations for E-health

Additionally, the findings of this dissertation provide insight for the field of e-health, in terms of online information seeking, cues to action, and e-health literacy. The participants experienced a number of constraints, as well as benefits, that either hinder them or assist them in their searching of sexual health information online. These constraints included credibility issues with online sources (Eng, 200), the difficulties of personalizing sexual health online, and information overload (Morahan-Martin, 2004). Benefits included anonymity (Bennett & Glasgow, 2009; Saperstein, Atkinson, & Gold, 2007) and opportunities for building communities online surrounding sexual health issues (Wright et al., 2011), claiming that online searching made for more productive visits with doctors (Wald et al., 2007). The participants demonstrated their e-health literacy levels by discussing how they assessed online health information, engaging in a series of strategies that encompassed different aspects of e-health literacy (Norman & Skinner, 2006). Finally, there were a number of cues to (in)action that were evident for the participants in

terms of whether they will engage in a healthy behavior (Janz & Becker, 1984; Murray-Johnson & Witte, 2003). These findings demonstrate that the current definition of e-health is limited in terms of its theoretical conceptualization; thus, I have proposed my own definition of e-health: *e-health is the process of using information and communication technology tools to improve health care by way of increasing interaction between patients and providers; disseminating, exchanging, and sharing health information; and applying these technologies to health services.*

Constraints/barriers. Dealing with credibility is an ongoing problem that online health information seekers must face when trying to locate quality information. One of the biggest challenges of turning to the Internet for health information is the overwhelming amount of information, that could oftentimes come off as contradictory to each other, unverified by legitimate sources, or simply inaccurate (Eng 2001; Morahan-Martin, 2004). Along the same token is the notion of extreme information overload – participants felt that the sheer volume and scope of online sexual health information is so large that it can be difficult to sort through, leading to ineffective searches and sometimes avoidance altogether (Morahan-Martin, 2004). One way that participants worked around this problem was by identifying the source of information. Many credible online sources are accredited or have institutional buy-in from medical practitioners, whose expertise shapes the content shared online (Lustria, Brown & Davis, 2007).

Another challenge that was faced by the participants in terms of searching for health information online was the ability to gather tailored, personalized information. Even though tailoring has generally been found to be very effective for disseminating health information versus more generic messages (Neuhauser & Kreps, 2003), the

participants struggled with conceptualizing how this can be implemented in terms of sexual health. For them, sexual health is a very complicated, complex, phenomenon that varies from individual to individual and would be difficult to personalize in a piece of online information. However, one method that could potentially work to resolve this issue is to not necessarily attempt to specifically tailor messages, but to develop messages that work to increase the involvement levels and personal relevance to audience members.

Benefits. Since sexual health is a very personal and oftentimes sensitive issue, the opportunity for anonymity in online information seeking was embraced by many of the participants, which is a great advantage of turning to online sources (Bennett & Glasgow, 2009; Saperstein, Atkinson, & Gold, 2007). This ability to remain anonymous on the online space also allows for users to feel more comfortable engaging in open, frank communication, as they can be more willing to ask questions or discuss sensitive sexual health issues without any fear of shame or embarrassment (Fotheringham et al., 2000). The participants reaped the benefits of anonymity in their online interactions and felt free to find information on whatever they needed without any negative repercussions.

Additionally, the opportunity for anonymity can be helpful in terms of self-disclosure (Wright & Bell, 2003; Wright, 2000), which can be useful in the development of social communities online that could offer support and information to young adults who are in need of sexual health advice. Online support communities are especially beneficial in terms of helping young adults establish *weak ties*, which Adelman, Parks & Albrecht (1987) define as a "wide range of potential supporters who lie beyond our circle of family and friends" (p. 136). Because sexual health is such a sensitive issue, being able to discuss these matters with weak ties as opposed to strong ties can help young adults

alleviate stress, reduce potential for embarrassment, and obtain new or novel information that they otherwise wouldn't get from family members or friends (Wright et al., 2011).

Participants also discussed the benefit of bringing that information to their visits with a doctor. Wald et al. (2007) argued that this helps create more efficient use of clinical time, and participants claimed that it helped them to better understand their doctor's prognosis. This also increases the potential for more shared decision-making between doctors and patients, shifting doctor-patient interactions toward a more collaborative communication model, where patients are seen as peers who openly discuss health options and make mutually satisfying decisions (Balint & Shelton, 1996; Laine & Davidoff, 1996). This involves teamwork, effective communication, and critical listening on both sides of the interaction, where both doctors and patients can ask clarifying questions and work together to develop and meet shared goals (Young & Flower, 2002).

Finally, social media channels were brought up by the participants as relatively new tools that can be used to assist in the seeking, understanding, and sharing of health information. According to Chou et al. (2009), social media for health can be beneficial for several reasons: (1) social media can increase perceived social support and interconnectivity among individuals; (2) information sharing is more democratic and patient controlled; and (3) public health programs have recently demonstrated success utilizing social media for health promotion efforts such as smoking cessation and dietary interventions. Furthermore, because social media content is so easy to repost and share with others, there is an inherent viral nature to using these tools, relying on word of mouth and the social context the message is embedded in to ultimately persuade individuals to change their attitudes or behavior surrounding a particular health topic or

condition (Sweetser, 2010; van Noort, Antheunis, & van Reijmersdal, 2012). Thus, social media provide a unique opportunity for health communicators and health consumers to develop online communities, spark health discussion, and engage in real-time interactions (Hughes, 2010), as was seen as a great benefit to participants. However, participants also cautioned about the use of social media in regards to its informal nature, warning users to evaluate sources accordingly and to use these channels as supplementary outlets of information for more traditional channels (Taubenheim et al., 2012). The findings revealed that there are some limitations of using social media and the Web for health purposes, including its limited access, issues with privacy, and the tendency to self-diagnose/misdiagnose using online information.

Assessment and e-health literacy. The participants discussed how they assessed the quality of online health information sources, which demonstrated how they utilized different components of e-health literacy as defined by Norman and Skinner (2006). Participants utilized their cognitive and critical thinking skills to use appropriate searching strategies (media literacy), locate relevant information (information literacy), read and shift through information (traditional literacy), filter the most useful nuggets (information literacy) and overall evaluate the usefulness of online health information (media literacy) by way of tapping into their levels of the analytic types of literacy as mentioned by Norman and Skinner (2006). Furthermore, obtaining access to computers and current information technology (computer literacy), understanding the science behind health information via cross-checking sites (scientific literacy), and being able to harness information toward making sound health decisions (health literacy) were additional ways participants utilized the context-specific components of e-health literacy that assisted

participants in their assessment of online health information. Therefore, the findings of this study showed that the participants indeed used all aspects of e-health literacy when it came to searching for sexual health information online.

Cues to action. There were several cues to action that helped motivate the participants into evaluating their resources to determine whether they will engage in online sexual health seeking behaviors (Janz & Becker, 1984; Murray-Johnson & Witte, 2003). There were internal cues to action for the participants, such as an innate curiosity about sexual health topics that prompted searching, an anxiety surrounding the possibility of being infected with an STD, or a fear and avoidance of getting bad news face-to-face from a doctor. External cues to action included interactions with online communities (as previously mentioned) as well as the ease of availability and accessibility of well-known websites such as Google and/or WebMD. Through these cues to action, the participants were spurred to search online for sexual health information, which in turn armed them with the tools they needed to engage in healthy sexual behaviors (Rosenstock, 1966). However, some of these cues to action resulted in the complete opposite behavior for the participants, prompting them to avoid the online space in terms of seeking out sexual health information. Therefore, especially when it came to internal cues to action, these factors worked as cues in (in)action, causing participants to shut down and not take actions for the health. Though this concept is the most under researched aspect of HBM (Janz & Becker, 1984; Rosenstock, 1974; Zimmerman & Vernberg, 1994), the findings demonstrate that cues to (in)action do exist, and can play a large role in determining whether or not an individual will be motivated to engage in healthy behaviors.

Theoretical Insight for Campaign Planning

Several lessons in terms of campaign development and design can be obtained from the results of this study. First of all, the findings demonstrated the need for a theoretical framework at the onset of the campaign, to guide message creation and dissemination strategies and tactics that are relevant and effective (Noar, 2006; Rice & Atkin, 2002). Secondly, the participants called for several campaign features to enhance the quality of the GYT campaign, including more visuals, interactive features (Bennet & Glasgow, 2009; Glasgow, 2010), and relatable spokespeople (Murray-Johnson & Witte, 2003). The importance of listening (Kreps, Bonaguro, & Query, 1997) emerged as another important theme in the examination of GYT, in terms of the campaign developers being able to listen to their target audiences' communication needs and recommendations for improvement. Finally, an innovative recommendation from one of the participants called for the use of guilt appeals in the campaign (Vangelisti & Sprague, 1998), which will be explored and discussed in greater detail below.

Need for theory. Even though campaigns are applied in nature, scholars have argued that choosing a theoretical framework to serve as the conceptual foundation for the campaign helps make that campaign more effective (Noar, 2006; Rice & Atkin, 2002). This is especially helpful when it comes to evaluation, as communicators can test different components of the theory to gauge its impact and effectiveness. Based on my informal conversations with the CDC Division of STD Prevention, GYT was not developed based on theory, and this was evident in terms of the disconnect between the campaign and its intended audience and the confusion surrounding some of its messaging. Although the participants commended the campaign for its motivating

183

materials to get young adults tested, they felt that more could be done in terms of developing more appropriate materials for the target audience that are engaging and personally relevant, along with using a more realistic tone that resonates better with them. Therefore, if a theory had been used at the onset of campaign development, GYT developers would have been better equipped to gauge why certain aspects of the campaign worked while others have not.

Campaign features. The participants' suggestions for improving and enhancing GYT were all campaign features that have been found to be effective in the literature. Their call for more videos and interactive content was echoed by extant research, which claimed that engaging visuals were key to holding the attention of audiences (Bennett & Glasgow, 2009; Glasgow, 2010; Noar & Harrington, 2012b). This was especially important for online materials, which are constantly vying for attention among the inundation of information that is posted on the Internet on a continuous basis.

Furthermore, the participants called for relatable spokespeople to serve as the face of GYT, which would allow them to vicariously experience the threat of poor sexual health as someone similar to them (Murray-Johnson & Witte, 2003). This was almost always suggested to be a celebrity who was recognizable, but respected as a credible source of sexual health information. There are a number of key predictors of celebrity endorsements found in the persuasion literature that could be of use to the GYT campaign developers, including: (a) credibility, as celebrities are generally viewed by audiences as credible sources for the products they endorse (Goldsmith et al., 2000); (b) expertise, as perceptions of expertise positively influence the celebrity's effectiveness (Ohanian, 1990); (c) trustworthiness, as highly opinionated messages from celebrities who are

considered trustworthy produce an effective attitude change (Chao et al., 2005); (d) attractiveness, where physically attractive celebrities are viewed more favorably on certain personality traits than unattractive ones (Eagly et al., 1991); and (e) product fit, where there has to be a harmonious match between the celebrity endorser and the product or service being endorsed (Till & Busler, 2000). GYT campaign developers could take the participants' recommendations and these predictors into consideration when seeking out future spokespeople that could serve as the face of the campaign.

Importance of listening. The findings of the study demonstrate the importance of listening in the dissemination of health information, as it is considered to be a "critical communication strategy" for health communicators and campaign developers (Kreps, Bonaguro & Query, 1997, p. 301). In order for a campaign to be truly effective, formative research needs to be conducted that takes into account the target audience's goals, needs, and perceptions on their capability to perform the advocated behavior (Snyder, 2007) – which is primarily done by effectively listening to target publics. Emphasizing listening in campaign development could lead to a series of beneficial outcomes, including enabling patients to better understand and adhere to health recommendations, and providing more avenues for collaboration and community outreach (Smoak, 2002). As Umphrey (2004) suggests, health-related messages must be consistent with their listener's strengths and weaknesses, limitations and concerns, and be designed in a way that demonstrates that their voice is being heard. By creating a more open-minded healthcare environment that emphasizes careful listening, strides can be made in communicating more effective messages that improves health outcomes for all parties involved.

A new possibility: guilt appeals. One of the participants brought up a new possibility for sexual health campaigns like GYT that warrants discussion: the use of the guilt appeal. Instead of using a fear appeal, which could boomerang and create adverse effects for audience, this particular participant suggested utilizing a guilt appeal that imposes a moral responsibility on young adults to be safe and get tested. Extant research has shown that guilt can be used as an ideal persuasive tool because it creates an aversive state in which individuals are then motivated to reduce the guilt (Vangelisti & Sprague, 1998). Furthermore, guilt can lead to self-control as an individual attempts to reduce the negative emotional state; thus it is makes sense that by engendering feelings of guilt, individuals will be more likely to comply with a given message.

Guilt can be defined as "an individual's unpleasant emotional state associated with possible objections to one's own actions, inactions, circumstances, or intentions," (Baumeister et al., 1995, p. 245). Typically this emotion is viewed as having moral implications and may be triggered when individuals perceive they are faced with a moral dilemma that could have negative consequences affecting both the individual and others (Eisenberg, 2000; Skoe et al., 2002) – as could be in the case of engaging in unsafe sex. Typically individuals experience guilt when they feel that they have done something wrong and they attempt to revoke the behavior by either confessing, undoing, or repairing the behavior (Tangney et al., 1996), which could prove to be effective in the case of GYT.

With this said, guilt can be considered an important motivating factor in terms of young adults engaging in healthier sexual behaviors. However, in this context, this notion of guilt could be better conceptualized as "personal responsibility" or "perceived

186

accountability," as this better depicts the idea that young adults feel personally responsible or accountable for the health and safety of their sexual partners. Therefore, personal responsibility can be seen as yet another type of an internal cue to (in)action faced by young adults, as this influences whether an individual will be motivated to seek out the healthier behavior.

Theoretical Development and Integration: E-HIMM Modified

The findings revealed a need for revising constructs in my proposed theoretical model, E-HIMM, as some components were not explicitly revealed in the data, while other alternate relationships emerged. First, the referent criterion emerged as a construct that may influence perceived threat (the more parsimonious combination of perceived susceptibility and perceived severity), in terms of the previous cognitions and experiences participants had surrounding the issue of sexual health. In addition, factors pertaining to the participants' e-health literacy levels also influenced how they perceived the threat of poor sexual health, as their assessments of online materials increased their awareness and knowledge about the issue (see Figure 3).

Figure 3. Situational Antecedents: Individual Perceptions and Cognitive Frames
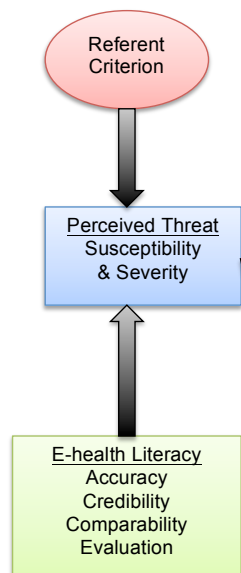
The participants' level of perceived threat influenced their level of problem recognition, which was also influenced by additional factors. First, societal norms emerged as a new variable in terms of how society views and reacts to a particular health issue, which in this case was the stigma surrounding sexual health. Secondly, cues to (in)action emerged as factors that influenced how participants recognized the problem of sexual health, and were categorized in one of two ways, either as internal cues to (in)action or external cues to (in)action. These variables emerged as the modifying factors of E-HIMM (see Figure 4).

Figure 4. Modifying Factors
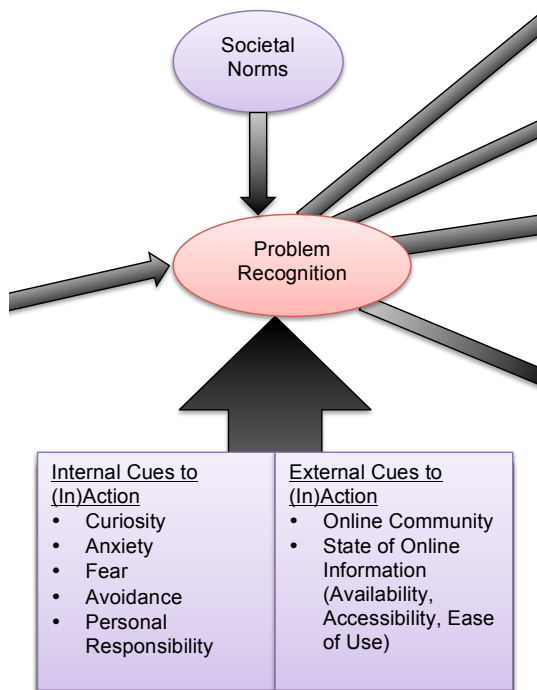
The mediating factors remained relatively the same, including constraints recognition, involvement recognition, and the situational motivation in problem solving. However, a new mediator emerged from the data: benefits recognition, which revolves around individuals actually recognizing that there are benefits to engaging in the healthy behavior. In this study, participants were aware of the benefits of enacting safe sexual behaviors, and were motivated to take action based on theses benefits, but were also aware of the constraints, as well as how personally involved they felt with the issue. (see Figure 5).

Figure 5. Mediating Factors
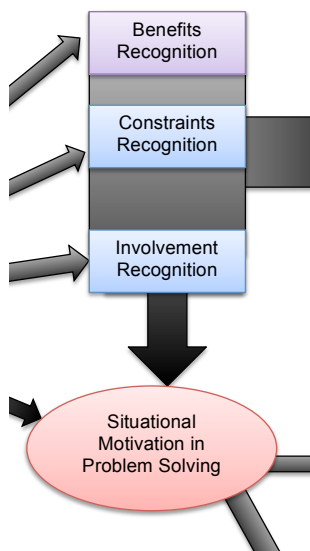
Lastly, the mediating factors influenced the likelihood of communicative behavior. After benefits, constraints, and involvement recognition, the individual would assess whether the perceived benefits outweighed the perceived barriers, leading to what would be either be high, moderate, or low levels of self-efficacy along a continuum. Based on where he/she stood along this continuum, the individual could be inclined to acquire information and select information. Once they feel the information is satisfactory,

189

they would choose a channel through which they would transmit the information. The findings revealed that in spite of the growing reliance on new media channels for health information, traditional channels and word-of-mouth communication is still valued and just as important for sharing information (see Figure 6).

Figure 6. Likelihood of Online Communicative Behavior

Benefits Recognition

Constraints Recognition

Involvement Recognition

Situational

Problem Solving

Perceived Benefits

Minus

Perceived Barriers

Continuum of Self-Efficacy
High ←→ Moderate ←→ Low

Information Acquisition

Information Selection

Channel
Social Media
Website
Email
Text Message
Word of Mouth

Information Transmission
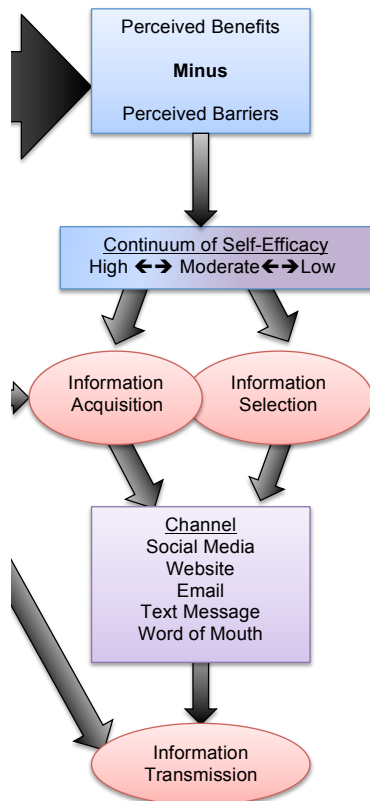
Contributions and theoretical implications of E-HIMM. E-HIMM contributes to the scholarly body of knowledge by integrating a public relations/communication theory (STOPS) and a health behavior theory (HBM) and applying it to an online context within the realm of sexual health. This model, therefore, is one of the first developed that explicitly works to explain the e-health phenomenon, an area of research that is in great need of theory development (Buller & Floyd, 2012). As it currently stands, there are no

communication theories to date that attempt to explain *how* and *why* individuals turn to the online space for health information. This dissertation is my attempt to remedy this problem and add theoretical power to the body of knowledge in e-health, and more generally, health communication. By integrating the variables of HBM with STOPS, my goal was to develop a model that would help explain the motivations, cognitive processes, and communicative actions surrounding online information seeking. With this said, this model could be applied to other health topics and contexts outside of sexual health in terms of how people utilize the online space for seeking out information (for the complete model, see Figure 7).

Furthermore, E-HIMM demonstrates the utility of an integrated HBM/STOPS framework in campaign planning. The findings revealed that the integrated constructs from both theories were readily present in the knowledge, attitudes, and behavioral intentions of the participants, which could provide useful evidence for campaign developers when constructing messages, or for e-health scholars and practitioners when creating online interventions. Practitioners could also utilize this model to segment groups outside of young adult public, such as the older adult population.

The findings of this dissertation also revealed that there are factors such as benefits, barriers, self-efficacy levels, and cues to (in)action unique to searching for sexual health information on the Internet that warrants further study and exploration. These findings can be a step toward researchers obtaining a better understanding behind the motivations and behavioral intentions of various publics, which in turn can be useful in assisting with more effective education and message dissemination. With many young adults turning to the Internet for sexual health-related information (Baxter et al., 2008;

191

Borzekowski & Rickert, 2001; Escoffery et al., 2005), this dissertation offers insight into this particular phenomenon and also answers the call for more theory-driven strategies in sexual health education and promotion, which at this point is sorely needed (Coleman, 2002; U.S. Surgeon General, 2001).

Figure 7. E-HIMM Modified

The E-Health Information Management Model Modified (E-HIMM)
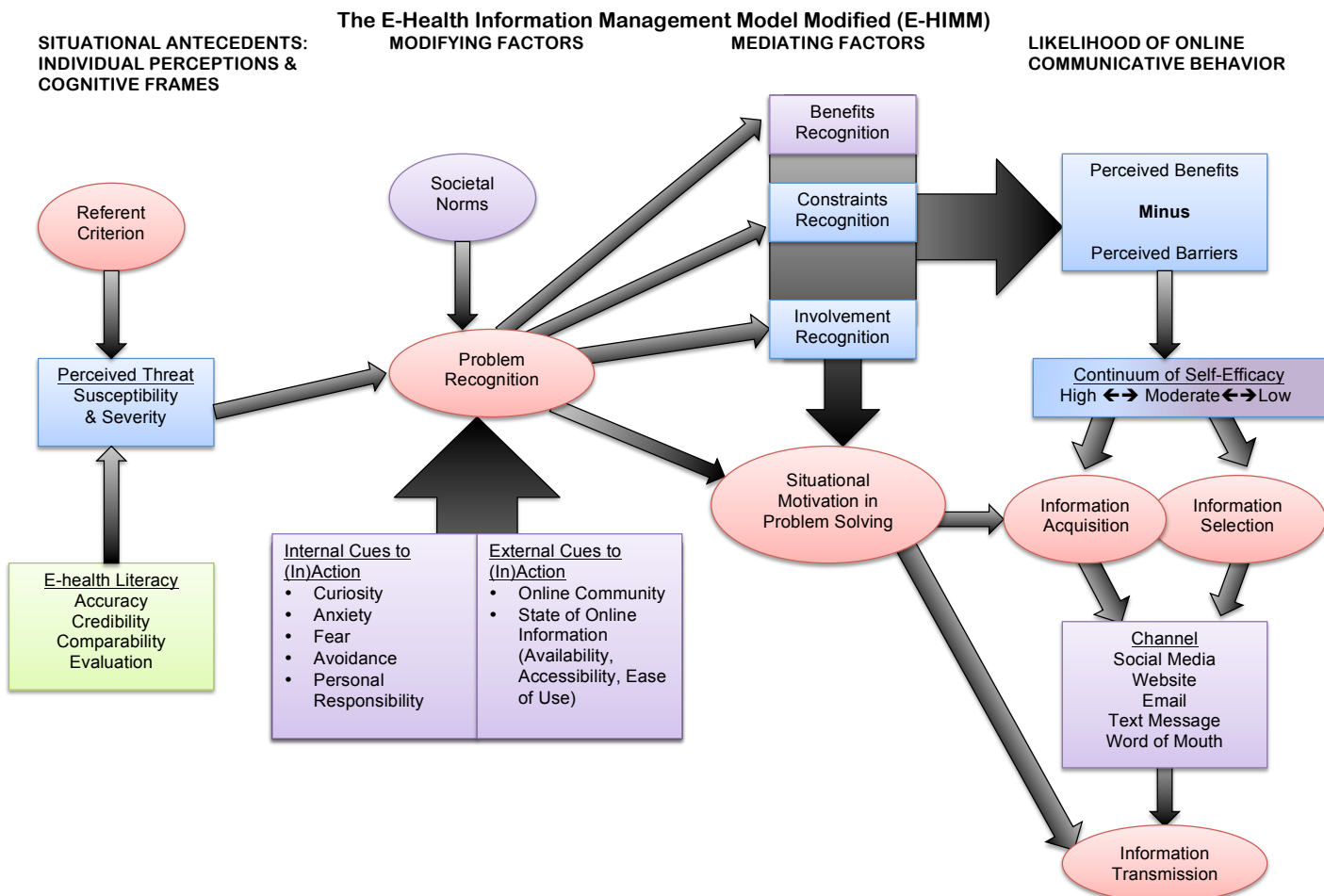
Practical Implications

      This study also offers practical implications for the both health communicators and public relations practitioners. The findings suggest future strategies and tactics that professionals can use for sexual health education, campaign development and implementation, audience segmentation, and evaluation. Findings can be also used to help campaign developers such as GYT develop more effective messages for their target publics, via the most appropriate communication channels. These practical implications will be developed into a report for the CDC Division of STD Prevention, one of the developers of the GYT campaign, to assist them in the improvement of campaign materials and the development of new materials that were proven to be effective for the campaign audience.

      For health communicators. For health communicators who are particularly focused on disseminating sexual health information, this study can provide some helpful insight on engaging with the young adult audience. Based on the interviews and focus groups with the participants, there are a number of internal and external constraints that they face that prevent them from being the safest and healthiest in their sexual practices. Health communicators and educators therefore should become aware of these constraints and barriers and work toward reducing them, through education programs, community outreach, and more in-depth research studies, as was advocated by Coleman (2002) and the U.S. Surgeon General (2001).

      In addition to reducing these barriers, health communicators can also learn the benefits and motivating factors that were mentioned by the participants in this study and use them in their messaging and campaign design. Messages such as "Be Stress Free: Get

Tested" and/or "Protect Your Partner, Protect Yourself" are based on the results of this research and were proven to resonate well with young adult audiences. Health communicators can attract the attention of target publics through enacting the various cues to action that were found in this study, such as building supportive online communities or tapping into the curiosities of young adults. By trying to better understand the cognitions, values, and motivations of this particular group of publics, health communicators may have better results in terms of effectiveness and reach.

Lastly, this study emphasizes the need for more a more open dialogue surrounding sexual health. Many of the participants were fully aware of the stigma surrounding sexual health, and as a result, they were fearful or embarrassed to talk about sexual health matters in a more public forum. Health communicators should push for more campaigns to be disseminated surrounding this topic and work harder to uncover the core of society's reluctance to confront sexual health issues (IOM, 2000). Policymakers and other key influencers should also be targeted to make changes in the national agenda that advocate for better initiatives and programs focused on conversation and open discussion (Rice & Atkin, 2002; Schaalma et al., 2004).

For public relations practitioners. Public relations practitioners could also benefit from this study by incorporating the major findings into their campaign work. First, this study demonstrates the importance of conducting formative research in campaign planning development and planning (Gittleson et al., 2006; Mendelsohn, 1973; Noar, 2006), a task that is oftentimes overlooked by many practitioners due to constraints in staff, time, and/or budget. This research shows the importance of assessing target audiences prior to the onset of the campaign in order to fully understand their perceptions

194

of the issue at-hand and to pretest messaging to determine if it is personally relevant to audience members (Noar, 2006). Practitioners can exercise open forums with target publics, allowing room for feedback on campaign materials before they are widely disseminated to various sub-populations or to the broader general public.

Second, this study offers some practical recommendations in terms of segmenting audiences (Rice & Atkin, 2002). The utilization of STOPS in this study offered a new method for audience segmentation, by way of their communicative behaviors, and whether or not publics actively or passively seek, gather, and share information. The integration of HBM with STOPS also offered additional insight into segmentation, by offering other factors for categorizing audiences such as levels of perceived threat and self-efficacy. The findings from this study, as well as the resulting E-HIMM model, can provide public relations practitioners with useful tools to assess and predict how target publics feel about particular issues.

For the GYT developers. The GYT campaign developers can be assured that the young adult population is willing to be educated about sexual health and welcomes any information about how to engage in safer sex practices. However, the findings also revealed that there is a lot of room for improvement in terms of creating more effective materials that would resonate with this particular demographic. The developers of the campaign need to consider incorporating "real stories" from spokespersons that young adults can relate to. Even though the participants agreed that celebrity spokespersons are effective in marketing and product advertising (Chao, Wuhrer, & Werani, 2005; Goldsmith, Lafferty, & Newell, 2000; Till & Busler, 2000), health campaign

195

programmers such as GYT should also consider using a patient in the target age range whose credibility stems from having gone through a sexual health experience.

This study also demonstrates the importance of effective listening on the part of the GYT campaign developers. For the participants, they made suggestions on how to improve GYT with the hopes that these suggestions will be heard. Extant research has shown that effective listening on the part of organizations leads to more tolerance and sensitivity on the part of all publics involved (Timm & Schroeder, 2000), where all feedback is taken into account. Gray and Robertson (2005) argued that an organization's success depends on how well communicators engage in conversation, dialogue, and listening, which can ultimately lead to stronger relationships and a better bottom line (Bentley, 2000). Therefore, the GYT campaign developers should listen to the recommendations of their target publics for more audience-centered campaign materials that reflect their voices.

Limitations and Future Research

Although qualitative methods allowed for an in-depth understanding of sexual health, e-health, and the GYT campaign, a major limitation is the actual topic of study. Because sexual preferences, activity, and STDs are very intimate and personal experiences, participants may not have been as comfortable responding as honestly as they would with a close friend (Rittenour & Booth-Butterfield, 2006). This may have produced issues with the focus groups in particular – participants may have been hesitant to openly discuss their sexual health matters, or they may have inflated their experiences to make them sound more sexually experienced than they actually are, which happens most frequently with men (McCarthy, 1994). In a similar vein, interviews have been

critiqued for being contrived and unnaturalistic, occurring in an artificial setting developed by the researcher (Cresswell, 2007). Participants in this study, especially in the focus group, may have felt forced to have artificial discussions with people they would rather not share details with. However, I felt that my training as a moderator helped alleviate these issues. I have worked with groups of high school and college-aged students in the past and have been successful in building rapport with them. I also believe that the fact that I am not that much older than my participants proved to be useful in terms of convincing them to speak honestly and openly. Future research could explore other aspects of sexual health not covered in this study, such as healthy relationships, additional forms of contraception, and negotiating open communication between partners about topics such as STD history or birth control.

Overall the participants did not seem shy with me once I established a rapport with them, with some interviewees willing to disclose personal experiences even though they were not prompted or asked to. However, there were a few participants who seemed more guarded and hesitant to talk about sexual health issues, with one individual canceling the interview when he found out what the conversation would consist of. Some explanations could include embarrassment or cultural differences in terms of speaking openly about sexual health. Additionally, the fact that I took notes during the interviews and focus groups may have influenced the candor of the conversations, as participants may have felt more self-conscious about what they were saying.

Additionally, even though my age may help in this study, my background as a Filipino woman may serve as another limitation. Participants who are from different racial and ethnic backgrounds may not have felt comfortable sharing information with

someone who is different from them. However, as was evidenced in my master's thesis (Briones, 2010), my ascribed identity as a Filipino woman does not resonate as well as my avowed identity as someone who grew up in a predominately White neighborhood. Therefore, due to my dual identities, I felt that I was overall quite successful in effectively reaching out to the different groups of individuals with my experiences. With that said, due to time and space constraints the issue of race did not come up in any of the focus group sessions or interviews as a concern for the participants, which could be seen as a limitation of the interview protocol and data analysis. Future research could explore the concept of race and ethnicity within the sexual health/e-health context to determine the specific communication needs of various demographic groups. Future research could also conduct additional analyses on other demographic factors such as gender and culture to determine whether differences emerged in terms of sexual health preferences and online information seeking behaviors.

Furthermore, in a similar vein, although there were four self-identified homosexuals in this study, I did not probe these participants about how their sexuality shaped their sexual health experiences, with the exception of one participant, who identified as a transgendered male. This resulted in a deep and very meaningful conversation about the challenges trans people face in terms of navigating the healthcare system, and obtaining the services they so desperately need. I found this conversation so extremely humbling and enlightening that I felt that my dissertation work would not be able to do this issue justice. Therefore, I plan to pursue future work with the trans population to further explore their meaning constructions of sexual health.

In a more pragmatic sense, the GYT campaign materials used for this study are based online, grounded in social media channels. Due to the ever shifting and dynamic nature of these channels, the social media materials in particular were frequently changing and being updated during the data collection phase, which took place over the course of a three week period, from November 13 to December 5. I could have just used screen shots in my sessions, but I felt that it wouldn't fully capture the essence of the campaign at that very moment. Therefore, I made sure that my interview questions were broad enough so that they would be applicable to a variety of social media channels, taking into account the various nuances that come with any online health campaign. In addition, although the social media channels were a point of discussion during the interviews and focus groups, more research in the future could do even more to really harness the true value of social media in health, and further explore the embracement or rejection of using these channels for heath-related reasons.

Finally, with such a large data set a further in-depth analysis of the interviews and focus groups is certainly warranted. Future research can explore the various tensions that emerged between the current themes of this study, such as the issue of convenience vs. privacy in seeking online health information, as well as other nuances and additional findings that were not reported in this iteration of the study. Future research could also take the resulting E-HIMM model that emerged from the data analysis and test its proposed relationships quantitatively via structural equation modeling methods. Lastly, additional theories could be considered and applied to the research context of this study, such as the transtheoretical model (Prochaska, Redding, & Evers, 2005), social cognitive theory (Bandura, 1986), and/or diffusion of innovations (Rogers, 2003).

Conclusion

The use of the Internet and technology for health purposes is a growing area for both scholarship and practice that has strong implications for health consumers, medical professionals, and communicators alike. Because the realm of e-health is relatively new, there are great opportunities to explore this phenomenon through in-depth research, which was the major goal of this study. Specifically, this dissertation explored how young adults made meaning of the topic of sexual health through online information seeking and online campaign materials. The findings that emerged through 50 in-depth interviews and five focus groups with young adults demonstrated that sexual health is a top-of-mind issue for this particular target group and that the online space is an acceptable channel through which they can find and share information. However, in spite of the rising usage of social media by this particular group, the findings showed that young adults were hesitant and wary of the channel, not seeing it as a resource for health information but more of a channel for networking and entertainment.

The results of this dissertation also explored how young adults perceive sexual health in the context of their daily lives. Sexual health educators can gain insight from these findings to develop curricula and programming that take into account the various barriers young adults face, and emphasize the benefits that result from engaging in safe, protective, sexual health behaviors. Health communicators can work alongside these educators to develop materials for young adults that increase their involvement with sexual health, creating materials and messages that are engaging, personally relevant, and empowering for target audiences.

Furthermore, this study attempted to build theory in the field of e-health, through the development of E-HIMM, a model that was informed by the participants in this study. This model was guided through the integration of two theories proven to be useful in health communication and public relations/communication research, namely HBM and STOPS. Results from this study showed that the integration of HBM/STOPS variables was a suitable merger of theoretical frameworks that help explain the cognitions, motivations, and behavioral intentions behind various health topics. Future researchers can take E-HIMM and apply it to other important health issues to determine the various information and communication behaviors of targeted publics.

Additionally, this study provides practical recommendations to the CDC's Division of STD Prevention, on how to improve the GYT: Get Yourself Tested campaign. The developers of GYT could take the lessons learned from this study's findings and use them to revise the website, Facebook, and Twitter pages to more effectively reach out to their intended audiences. The participants not only provided insight on the strengths and weaknesses of GYT, but they also voiced their opinions in terms of future strategies and tactics that the campaign developers could use to spread the message and cause.

Finally, this study revealed that the young adult public consists of aware participants within the dialogue surrounding sexual health and getting tested for STDs. As engaged information seekers and forefenders, this group of publics have proven in this dissertation research that they had varied self-efficacy levels in terms of getting the information they need about sexual health, in part due to the barriers they face in terms of the topic at hand and the online space. GYT campaign developers and other campaigners

and communicators can use these findings to better create messages that will resonate

with this particular public, resulting in healthier behaviors for young adults presently and

in the years to come.

Table 1

Definitions of E-Health (As Cited in Oh et al., 2005)

Source	Definition
Mitchell (1999)	A new term needed to describe the combined use of electronic communication and information technology in the health sector. The use in the health sector of digital data – transmitted, stored and retrieved electronically – for clinical, educational and administrative purposes, both at the local site and at a distance.
McLendon (2000)	Ehealth refers to all forms of electronic healthcare delivered over the Internet, ranging from informational, educational and commercial "products" to direct services offered by professionals, non-professionals, businesses or consumers themselves. Ehealth includes a wide variety of the clinical activities that have traditionally characterized telehealth, but delivered through the Internet. Simply stated, Ehealth is making healthcare more efficient, while allowing patients and professionals to do the previously impossible.
Medical Business News (2000)	E-Health is a convergence between the Internet and the health care industry to provide consumers with a wide variety of information relating to the health care field
Oracle Corporation (2000)	Healthcare transactions, encounters, messaging, or care provision occurring electronically.
Deluca, Enmark (2000)	E-health is the embryonic convergence of wide-reaching technologies like the Internet, computer telephony/interactive voice response, wireless communications, and direct access to healthcare providers, care management, education, and wellness.
Prelow (2000)	E-health is the process of providing health care via electronic means, in particular over the Internet. It can include teaching, monitoring (e.g. physiologic data), and interaction with health care providers, as

well as interaction with other patients afflicted with the same conditions.

Baur, Deering & Hsu (2001)	The most broad term is ehealth, with refers to the use of electronic technologies in health, health care and public health. (...) The various functions of ehealth [are]: (...) reference (electronic publishing, catalogues, databases); self-help/self-care (online health information, support groups, health risk assessment, personal health records), Plan/provider convenience services (online scheduling, test and lab results, benefit summaries), Consultation and referral (doctor-patient or doctor-doctor consultation via telemedicine systems, remote readings of digital image and pathology samples), E-health commerce (sales of health related product and services) [and] Public health services (automated data collection, data warehouses, online access to population survey data and registries, advance detection and warning systems for public health threats). (...) This chapter uses the term ehealth to refer to the broadest possible range of interactive technologies applied to health and health care.

Orlikoff & Totten (2001)	The use of the Internet and related information systems and technology in all aspects of health care.

Eysenbach (2001)	e-health is an emerging field in the intersection of medical informatics, public health and business, referring to health services and information delivered or enhanced through the Internet and related technologies. In a broader sense, the term characterizes not only a technical development, but also a state-of-mind, a way of thinking, an attitude, and a commitment for networked, global thinking, to improve health care locally, regionally, and worldwide by using information and communication technology

Blake (2001)	The combined use of electronic communication and information

	technology in the health sector. It is important to note that e-health is much more than business transactions. It encompasses everything from digital data transmission to purchase orders, lab reports, patient histories and insurance claims.
Robert J Wood Foundation (2001)	EHealth is the use of emerging information and communication technology, especially the Internet, to improve or enable health and health care.
Wysocki (2001)	e-Health refers to all forms of electronic healthcare delivered over the Internet, ranging from informational, educational and commercial "products" to direct services offered by professionals, non-professionals, businesses or consumers themselves
Health e-Technologies Initiative (2002)	The use of emerging interactive technologies (i.e., Internet, interactive TV, interactive voice response systems, kiosks, personal digital assistants, CD-ROMs, DVD-ROMs) to enable health improvement and health care services.
Kirshbaum (2002)	There are many different definitions of eHealth: • Electronic connectivity vehicle for improving the efficiency and effectiveness of healthcare delivery • Enabling consumers/patients to be better informed about their healthcare • Enabling providers to deliver better care in more efficient ways
Wyatt and Liu (2002)	The use of internet technology by the public, health workers, and others to access health and lifestyle information, services and support; it encompasses *telemedicine, telecare*, etc.
Staudenmeir (2003)	Any use of the Internet or related technology to improve: the health and wellness of the population; the quality of healthcare services and outcomes; efficiencies in healthcare services or administration
COACH (2003)	The leveraging of the information and

RX2000 (2003)	communication technology (ICT) to connect provider and patients and governments; to educate and inform health care professionals, managers and consumers; to stimulate innovation in care delivery and health system management; and, to improve our health care system. eHealth signifies a concerted effort undertaken by some leaders in healthcare and hi-tech industries to harness the benefits available through convergence of the Internet and healthcare. Access, cost, quality and portability have been concerns in the health care arena. It's evident from many recent surveys that both health consumers and healthcare professionals are frustrated with the maze of health care delivery. Some, therefore, are turning to the Internet for answers and cost effective solutions.
WHO (2003)	E-health is a new term used to describe the combined use of electronic communication and information technology in the health sector OR is the use, in the health sector, of digital data-transmitted, stored and retrieved electronically-for clinical, educational and administrative purposes, both at the local site and at a distance
Southwest Medical Group	e-health is an emerging field focused on medical information and health care services delivered or enhanced through advanced Internet or related technologies. In a broader sense, the term extends the scope of health care beyond its conventional boundaries. Conceptually, e-health enables patients to easily obtain medical related services online from health care providers
Ehealth Technologies (2003)	The use of emerging information and communication technology, especially the Internet, to improve or enable health and healthcare thereby enabling stronger and more effective connections among patients, doctors, hospitals, payors, laboratories, pharmacies, and suppliers

Table 2

Definitions of Sexual Health (as cited in Edwards & Coleman, 2004)

Source	Definition
WHO Technical Reports Series (1975)	Sexual health is the integration of the somatic, emotional, intellectual and social aspects of sexual being, in ways that are positively enriching and that enhance personality, communication and love.
SIECUS (1995)	Sexual health encompasses sexual development and reproductive health, as well as such characteristics as the ability to develop and maintain meaningful interpersonal relationships; appreciate one's own body, interact with both genders in respectful ways; and express affection, love and intimacy in ways consistent with one's own values.
Pan American Health Organization, World Association of Sexology (2001)	Sexual health is the experience of the ongoing process of physical, psychological and social-cultural well-being related to sexuality. Sexual health is evidenced in the free and responsible expressions sexual capabilities that foster harmonious personal and social wellness, enriching individual and social life. It is not merely the absence of dysfunction, disease and/or infirmity. For sexual health to be attained and maintained it is necessary that the sexual rights of all people to be recognized and upheld.
Lottes (2000)	Sexual health is the ability of women and men to enjoy and express their sexuality and to do so free from risk of sexually transmitted diseases, unwanted pregnancy, coercion, violence and discrimination. In order to be sexually healthy, one must be able to have informed, enjoyable and safe sex, based on self-esteem, a positive approach to human sexuality, and mutual respect in sexual relations. Sexually health experiences enhance life quality and pleasure, personal relationships and communication, and the expression of

	one's identity.
Satcher, Surgeon General's Report (2001)	Sexual health is inextricably bound to both physical and mental health. Just as physical and mental heath problems can contribute to sexual dysfunction and diseases, those dysfunctions and diseases can contribute to physical and mental health problems. Sexual health is not limited to the absence of disease or dysfunction, nor is its important confined to just the reproductive years. It includes the ability to understand and weigh the risks, responsibilities, outcomes and impacts of sexual actions and to the practice abstinence when appropriate. It includes freedom from sexual abuse and discrimination and the ability to integrate their sexuality into their lives, derive pleasure from it, and to reproduce if they so choose.
The National Strategy for Sexual Health and HIV (2001)	Sexual health is an important part of physical and mental health. It is a key part of our identity as human beings together with the fundamental human rights to privacy, a family life, and living free from discrimination. Essential elements of good sexual health are equitable relationships and sexual fulfillment with access to information and services to avoid the risk of unintended pregnancy, illness or disease.
Robinson et al. (2002)	Sexual health is defined as an approach to sexuality founded in accurate knowledge, personal awareness, and self-acceptance, where one's behavior, values, and emotions are congruent and integrated within a person's wider personality structure and self-definition. Sexual health involves an ability to be intimate with a partner, to communicate explicitly about sexual needs and desires, to be sexually functional (to have desire, become aroused, and obtain sexual fulfillment), to act intentionally and responsibly, and to set appropriate sexual boundaries. Sexual health has a communal aspect, reflecting not only self-acceptance and respect, but also respect and appreciation for individual differences and

	diversity, and a feeling of belonging to and involvement in one's sexual culture(s). Sexual health includes a sense of self-esteem, personal attractiveness and competence, as well as freedom from sexual dysfunction, sexually transmitted diseases, and sexual assault/coercion. Sexual health affirms sexuality as a positive force, enhancing other dimensions of one's life.
World Health Organization (2002)	Sexual health is a state of physical, emotional, mental and social well-being related to sexuality; it is not merely the absence of disease, dysfunction or infirmity. Sexual health requires a positive and respectful approach to sexuality and sexual relationships, as well as the possibility of having pleasurable and safe sexual experiences, free of coercion, discrimination and violence. For sexual health to be attained and maintained, the sexual rights of all persons must be respected, protected and fulfilled.

Table 3

Demographics of Study Participants

Characteristic	Number of Participants
Sex	
Male	58
Female	57
Race	
White	61
Black	20
Hispanic	16
Asian	18
Age	
18-19	25
20-21	45
22-23	23
24-25	22
Sexual orientation	
Heterosexual	111
Homosexual	4
Relationship status	
Single	59
In a relationship	57

Appendix A: In-Depth Interview Guide

Hello! My name is Rowena Briones, and I am a Ph.D. candidate studying health communication and public relations at the University of Maryland. Thank you so much for agreeing to be interviewed today about the GYT: Get Yourself Tested Campaign and sexual health.

Have you read over the consent form? Do you give consent to be interviewed today?

Is it ok if you are audio-recorded today?

Great! Thank you for your participation! Now before we get into the main questions, I'd like to know a little more about your perceptions of health and health information.

1. What comes to your mind when I say the word "health"?

2. What are your biggest health concerns right now?

3. Where (or to whom) do you turn to for health information?
   a. Who do you talk to?
   b. Do you go online? What specific sites do you go to?

4. Do you think the Internet is helpful in making decisions about your health?

5. How important is it for you to be able to access health resources on the Internet? Scale 1-10

6. What kind of health resources do you look for (or have you used) online?

7. How would you rate the quality of health sources online?
   a. How do you assess quality and accuracy of online information?
   b. What sources do you consider to be credible sources of online health information?

8. What (if any) social media channels do you use?
   a. Do you use social media to get health information?
   b. Which forms do you find the most helpful?
   c. In what ways have social media helped you make informed health decisions?
   d. How do you think social media can be improved to serve your health needs better?

9. What comes to your mind when I mention sexual health?
   a. Why were these your first thoughts?
   b. Pregnancy vs. STD?

10. How would you define sexual health?
   a. [Note: If need definition cite WHO (2002): *Sexual health* is a state of physical, emotional, mental and social well-being in relation to sexuality; it is not merely the absence of disease, dysfunction or infirmity. Sexual health requires a positive and respectful approach to sexuality and sexual relationships, as well as the possibility of having pleasurable and safe sexual experiences, free of coercion, discrimination and violence]

11. What does sexual health mean to you?
   a. How do you think sexual health impacts your overall health?

12. Where have you learned about sexual health?
   a. Friends? – open with parents?
   b. Family?
   c. Doctor's office?
   d. TV/Magazines?
   e. Health education course? – was it effective?
      i. What grade?
   f. Who is your most trusted source of information about sexual health?
      i. Why?

13. What do you know about STDs? 1-10 scale

14. Have you ever have been tested for STDs?

15. What factors motivate you to make healthier choices about:
   a. Preventing STDs?
   b. Preventing pregnancy?
   c. Making sure you are in a healthy relationship?
   d. Having open conversations with a partner about your STD history?
   e. Having open conversations about birth control?

16. What constrains you to make healthier choices about:
   a. Preventing STDs?
   b. Preventing pregnancy?
   c. Making sure you are in a healthy relationship?
   d. Having open conversations with a partner about your STD history?
   e. Having open conversations about birth control?

17. Out of these constraints, what would you consider to be the biggest constraint to making healthier decisions about sexual health?
   a. What would you consider to be the biggest benefit?

18. Where have you or your friends looked for sexual health information?
   a. Traditional media? (TV, radio, books, magazines)

     b. New Media? (Facebook, Twitter, website, mobile phone)
     c. What kind of information are you looking for?

19. When do you look for sexual health information?

20. Have you ever turned to the Internet for sexual health information?
     a. Did you find online information to be helpful?
     b. Why or why not?

21. What online messages have you seen on sexual health?
     a. Can you tell me more about them? [Probe for message, context, channel]
     b. What did they communicate to you?
     c. How did you interpret the message?
     d. How did you feel receiving them?
     e. What common themes did you find in these messages?
     f. Did these messages influence your thinking or perceptions about sexual health?

22. Let's say, for example, that a friend is worried that she may have contracted syphilis. She has asked you to look online to find out more information.
     a. What are some of the pros and cons of searching for this kind of information online?
     b. Do the pros outweigh the cons? Why or why not?
     c. What is the biggest challenge to searching for sexual health information online?
     d. The biggest benefit?

23. Do you feel that accurate, understandable sexual health information and resources are readily available to you?
     a. Why or why not?
     b. College?

Please look at the following materials from the GYT Campaign.

24. What are your first thoughts about these materials?
     a. What was the first thing you saw?
     b. Testing Locator?

25. What do you think about the look and feel of these materials? Usability?

26. What do you think this campaign is about?

27. How do these messages make you feel?

28. To what extent do you think these messages are targeted to you?

     a. If they are not, whom do you believe the messages target? Age range?

29. Do these messages effectively convey the risks of STDs?
     a. Why or why not?

30. Do these messages effectively convey the benefits of getting tested?
     a. What are these benefits?

31. What (if anything) do these messages make you think, feel or want to do?
     a. Would you consider getting tested given these materials?
     b. Why or why not?

32. Do the messages help address any concerns you may have about getting tested?

33. How would you change the messages if you could make them "talk" to you better?

34. How well do you feel like the messages in these materials address your needs for sexual health information?

35. Would you ever share these materials?
     a. If so, with whom?
     b. If so, how? (word of mouth, email, social media, mobile)
          i. Embarrassment?

36. Who would be the best spokesperson for this campaign?

(Repeat for other campaign materials)

37. What are some differences between this message and the other GYT materials you looked at?

38. Do you feel that one type of message affects you more than the other? Rank order them? Scale 1-10?

39. If you could change the way that college students receive information about sexual health online how would you change it?
     a. What would be the tone of your message?
          i. Parental involvement?
     b. What would the message include?
          i. Peer involvement?
     c. How would you share your message?
          i. Social media channels?

40. If you could design your own online sexual health campaign, what would it look like?

Ask for Demographics: Age, Sex, Race, Sexual Orientation, Year, Major

Appendix B: Focus Group Guide

Hello! My name is Rowena Briones, and I am a Ph.D. candidate studying health communication and public relations at the University of Maryland. Thank you so much for agreeing to be interviewed today about the GYT: Get Yourself Tested Campaign and sexual health.

Before we get started on our discussion, there are just a few things I'd like to point out. We are video taping this session so we can listen to what you have to say and not worry about taking notes. The video will help me in writing my report and are used for this purpose only. Everything you have to say will be kept secure and anything that is reported will be done without names or identifiers. In other words, no one who reads the final report will know or be able to figure out that any of you participated in this study. Also, please remember that you can choose not to respond to a question at any time and that your participation in this study is completely voluntary.

There are also a few ground rules that I would like us to adopt for our discussion:
- *You have been asked here to offer your views and opinions.*
  - *We know that each of you might have different views about this topic. You might hear opinions that you do not agree with, and if this happens, we ask that you respectfully listen and then share your opinion.*
- *To the extent the law allows, I will keep all comments secure.*
- *I ask that you not share comments you hear today with anyone outside this room. You should know that there is the possibility that a focus group participant may not honor this request.*
- *Everyone's input is important; I may call on you if you are being quiet.*
- *Avoid side conversations.*
- *Let one person speak at a time.*
- *I may need to cut a discussion short to get through the whole guide.*
- *Please turn off all cell phones and electronic devices!*
- *There are no right or wrong answers.*
- *All answers will be kept secure and anonymous, so feel free to speak your mind.*
- *Respect one another at all times.*
- *It's okay to disagree.*
- *As a way to help us please state whatever name you are using today whenever you make a comment.*

Let's start off by going around the room an introducing ourselves. Let's each say our name, age, year, and our major. I'll go first…

Now before we get into the main questions, I'd like to know a little more about your perceptions of health and health information.

1. What comes to mind when I say the word "health"?

2. What are your biggest health concerns right now?

3. Where (or to whom) do you turn to for health information?
    a. Who do you talk to?
    b. Do you go online? What specific sites do you go to?

4. Do you think the Internet is helpful in making decisions about your health?

5. How important is it for you to be able to access health resources on the Internet?

6. How would you rate the quality of health sources online?
    a. How do you assess quality and accuracy of online information?
    b. What sources do you consider to be credible sources of online health information?

7. What (if any) social media channels do you use? (Facebook, Twitter, LinkedIn, Blogs, Instagram, Pinterest)
    a. Do you use social media to get health information?
    b. Which forms do you find the most helpful?
    c. In what ways have social media helped you make informed health decisions?
    d. How do you think social media can be improved to serve your health needs better?

8. What comes to your mind when I mention sexual health?
    a. Why were these your first thoughts?

9. How would you define sexual health?
    a. [Note: If need definition cite WHO (2002): *Sexual health* is a state of physical, emotional, mental and social well-being in relation to sexuality; it is not merely the absence of disease, dysfunction or infirmity. Sexual health requires a positive and respectful approach to sexuality and sexual relationships, as well as the possibility of having pleasurable and safe sexual experiences, free of coercion, discrimination and violence]

10. What does sexual health mean to you?
    a. How do you think sexual health fits into overall health?

11. Who is your most trusted source of information about sexual health?
    a. Why?

12. What do you know about STDs?

13. What would you consider to be the biggest constraint to making healthier decisions about sexual health?
    a. What would you consider to be the biggest benefit?

14. Where have you or your friends looked for sexual health information?
    a. Traditional media? (TV, radio, books, magazines)
    b. New Media? (Facebook, Twitter, website, mobile phone)
    c. What kind of information are you looking for?

15. Have you ever turned to the Internet for sexual health information?
    a. Did you find online information to be helpful?
    b. Why or why not?

16. What online messages have you seen on sexual health?
    a. Can you tell me more about them? [Probe for message, context, channel]
    b. What did they communicate to you?
    c. How did you interpret the message?
    d. How did you feel receiving them?
    e. What common themes did you find in these messages?
    f. Did these messages influence your thinking or perceptions about sexual health?

17. What is the biggest challenge to searching for sexual health information online?
    a. The biggest benefit?

18. Do you feel that accurate, understandable sexual health information and resources are readily available to you?
    a. Why or why not?

Please look at the following materials from the GYT Campaign.

19. What are your first thoughts about these materials?

20. What do you think about the look and feel of these materials?

21. What do you think this campaign is about?

22. How do these messages make you feel?

23. To what extent do you think these messages are targeted to you?
    a. If they are not, whom do you believe the messages target?

24. Do these messages effectively convey the risks of STDs?
    a. Why or why not?

25. Do these messages effectively convey the benefits of getting tested?
    a. What are these benefits?

26. What (if anything) do these messages make you think, feel or want to do?
    a. Would you consider getting tested given these materials?

       b. Why or why not?

27. Do the messages help address any concerns you may have about getting tested?

28. How would you change the messages if you could make them "talk" to you better?

29. How well do you feel like the messages in these materials address your needs for sexual health information?

30. Would you ever share these materials?
       a. If so, with whom?
       b. If so, how? (word of mouth, email, social media, mobile)

31. Who would be the best spokesperson for these materials?

(Repeat for other campaign materials)

32. What are some differences between this message and the other GYT materials you looked at?

33. Do you feel that one type of message affects you more than the other?

34. If you could change the way that college students receive information about sexual health online how would you change it?
       a. What would be the tone of your message?
       b. What would the message include?
       c. How would you share your message?

35. If you could design your own online sexual health campaign, what would it look like?

Appendix C: Invitation Email Script – In-Depth Interviews

Dear [NAME]:

My name is Rowena Briones and I am a current doctoral student studying health communication and public relations at the University of Maryland. I am interested in studying how college students perceive the GYT: Get Yourself Tested campaign (http://www.itsyoursexlife.com/gyt/gytnow/) and sexual health.

For my dissertation, I will be conducting in-depth interviews and focus groups to try to better understand how college students make meaning of the GYT campaign. I am hoping that you would be able to share their thoughts and experiences with me for this project; your insights will help me explore this topic in greater depth. Everyone's participation is completely voluntary, and if you decline you will not be penalized in any way. In the focus groups, our discussions will remain confidential and nobody's name will be used in any reporting of findings unless they agree to have their name associated with their responses in study publications and documents. In addition, any reports or presentations resulting from this project will present responses and data in aggregate form, grouped with other participant responses.

I will be conducting the interviews and focus groups between November 2012-Feburary 2013. Ideally, I would need about 1 hour for the interview or 2 hours for the focus group.

If you have any questions about this project or about me, please feel free to give me a call at (856) 426-4607 or e-mail me at rbriones@umd.edu. Thank you very much for your time and consideration, your help is greatly appreciated.

Sincerely,

Rowena L. Briones, M.A.
Ph.D. Student, Department of Communication

Appendix D: Recruitment Email – Focus Groups

Dear [NAME]:

My name is Rowena Briones and I am a current doctoral student studying health communication and public relations at the University of Maryland. I am interested in studying how college students perceive the GYT: Get Yourself Tested campaign (http://www.itsyoursexlife.com/gyt/gytnow/), sexual health, and online campaigning.

For my dissertation, I will be conducting focus groups to try to better understand how college students make meaning of the GYT campaign. I am hoping that you would be able to share their thoughts and experiences with me for this project; your insights will help me explore this topic in greater depth. Everyone's participation is completely voluntary, and if you decline you will not be penalized in any way. Our discussion will remain confidential and nobody's name will be used in any reporting of findings unless they agree to have their name associated with their responses in study publications and documents. In addition, any reports or presentations resulting from this project will present responses and data in aggregate form, grouped with other participant responses.

I will be conducting the focus group in November 2012. Ideally, I would need about 1.5 hours of your time, and you will receive extra credit for your participation at the discretion of your instructor.

If you have any questions about this project or about me, please feel free to give me a call at (856) 426-4607 or e-mail me at rbriones@umd.edu. Thank you very much for your time and consideration, your help is greatly appreciated.

Sincerely,

Rowena L. Briones, M.A.
Ph.D. Candidate
Department of Communication
University of Maryland

Appendix E: Campaign Materials

Facebook Page

Twitter Page

Website

Know yourself. Know your status. GYT

Appendix F: Consent Form – In-Depth Interviews

Project Title	*Evaluating GYT: How health literacy, health perceptions, and situational motivations influence communicative action and behavior change.*
Purpose of the Study	*This research is being conducted by Rowena Briones and Dr. Linda Aldoory at the University of Maryland, College Park. We are inviting you to participate in this research project because you are a 18-25 year old young adult in the United States. The purpose of this research project is to evaluate some materials from the GYT campaign to understand how we can make them better for you.*
Procedures	*The procedures involve in-depth interviews either in person, over the phone, or via Skype at a date and time determined by you and the researcher. The interview will last approximately 60 to 90 minutes and will be audiotaped with your permission. Questions will focus on your perceptions of sexual health and how you make meaning of the GYT campaign materials. Examples include: Where do you look for sexual health information? What messages have you seen on sexual health? How do these messages make you feel? How would you change the messages if you could make them "talk" to you better?*
Potential Risks and Discomforts	*There may be some risks from participating in this research study. Potential risks include embarrassment discussing sexual health with the interviewer. I will attempt to alleviate this risk by making sure that no information will be shared outside of the interview.*
Potential Benefits	*There are no direct benefits, however possible benefits to participants include learning more about sexual health and ways to get tested. Participants will also come to understand more about how they wish to receive health information. This research will also assist in contributing to health literacy science research, public relations, and health communication.*
Confidentiality	*Any potential loss of confidentiality will be minimized by storing data in a password-protected computer located in the investigator's home. Only the investigator will have access to the data, which will be stored for three years after the completion of the project. Data will be destroyed by permanently deleting the files from the student investigator's computer. Audio recordings will also be stored and destroyed in this fashion.* *If we write a report or article about this research project, your identity will be protected to the maximum extent possible. Your information may be shared with representatives of the University of Maryland, College Park or governmental authorities if you or someone else is in danger or if we are required to do so by law.*
Medical Treatment	*The University of Maryland does not provide any medical, hospitalization or other insurance for participants in this research study, nor will the University of Maryland provide any medical treatment or compensation for any injury sustained as a result of participation in this research study, except as required by law.*

Right to Withdraw and Questions	*Your participation in this research is completely voluntary. You may choose not to take part at all. If you decide to participate in this research, you may stop participating at any time. If you decide not to participate in this study or if you stop participating at any time, you will not be penalized or lose any benefits to which you otherwise qualify.* *If you decide to stop taking part in the study, if you have questions, concerns, or complaints, or if you need to report an injury related to the research, please contact the investigator: Rowena Briones, M.A., 2130 Skinner Building, (856) 426-4607, rbriones@umd.edu. You may also contact the Co-Investigator, Dr. Linda Aldoory, 2376E SPH Building, (301) 405-0388, laldoory@umd.edu.*
Participant Rights	*If you have questions about your rights as a research participant or wish to report a research-related injury, please contact:* **University of Maryland College Park** **Institutional Review Board Office** **1204 Marie Mount Hall** **College Park, Maryland, 20742** **E-mail: irb@umd.edu** **Telephone: 301-405-0678** *This research has been reviewed according to the University of Maryland, College Park IRB procedures for research involving human subjects.*
Statement of Consent	*Your signature indicates that you are at least 18 years of age; you have read this consent form or have had it read to you; your questions have been answered to your satisfaction and you voluntarily agree to participate in this research study. You will receive a copy of this signed consent form.* *If you agree to participate, please sign your name below.*
Signature and Date	**NAME OF SUBJECT [Please Print]**	
	SIGNATURE OF SUBJECT	
	DATE	

Appendix G: Consent Form – Focus Groups

Project Title	*Evaluating GYT: How health literacy, health perceptions, and situational motivations influence communicative action and behavior change.*
Purpose of the Study	*This research is being conducted by Rowena Briones and Dr. Linda Aldoory at the University of Maryland, College Park. We are inviting you to participate in this research project because you are an undergraduate student at a college or university in the United States. The purpose of this research project is to evaluate some materials from the GYT campaign to understand how we can make them better for you.*
Procedures	*The procedures involve face-to-face focus groups in private meeting rooms, or a virtual focus group through a Web-based conferencing program at a date and time determined by you and the researcher. The focus groups will last approximately 90 to 120 minutes and will be audiotaped with your permission. Questions will focus on your perceptions of sexual health and how you make meaning of the GYT campaign materials. Examples include: Where do you look for sexual health information? What messages have you seen on sexual health? How do these messages make you feel? How would you change the messages if you could make them "talk" to you better?*
Potential Risks and Discomforts	*There may be some risks from participating in this research study. Potential risks include embarrassment discussing sexual health with peers in the focus group. I will attempt to alleviate this risk by making sure that all participants understand that no information will be shared and that the group is meant to be a safe space.*
Potential Benefits	*There are no direct benefits, however possible benefits to participants include learning more about sexual health and ways to get tested. Participants will also come to understand more about how they wish to receive health information. This research will also assist in contributing to health literacy science research, public relations, and health communication.*
Confidentiality	*Any potential loss of confidentiality will be minimized by storing data in a password-protected computer located in the investigator's home. Only the investigator will have access to the data, which will be stored for three years after the completion of the project. Data will be destroyed by permanently deleting the files from the student investigator's computer. Audio recordings will also be stored and destroyed in this fashion.* *If we write a report or article about this research project, your identity will be protected to the maximum extent possible. Your information may be shared with representatives of the University of Maryland, College Park or governmental authorities if you or someone else is in danger or if we are required to do so by law.*
Medical Treatment	*The University of Maryland does not provide any medical, hospitalization or other insurance for participants in this research study, nor will the University of Maryland provide any medical treatment or compensation for any injury sustained as a result of participation in this research study,*

	except as required by law.
Right to Withdraw and Questions	*Your participation in this research is completely voluntary. You may choose not to take part at all. If you decide to participate in this research, you may stop participating at any time. If you decide not to participate in this study or if you stop participating at any time, you will not be penalized or lose any benefits to which you otherwise qualify.* *If you decide to stop taking part in the study, if you have questions, concerns, or complaints, or if you need to report an injury related to the research, please contact the investigator: Rowena Briones, M.A., 2130 Skinner Building, (856) 426-4607, rbriones@umd.edu. You may also contact the Co-Investigator, Dr. Linda Aldoory, 2376E SPH Building, (301) 405-0388, laldoory@umd.edu.*
Participant Rights	*If you have questions about your rights as a research participant or wish to report a research-related injury, please contact:* **University of Maryland College Park** **Institutional Review Board Office** **1204 Marie Mount Hall** **College Park, Maryland, 20742** **E-mail: irb@umd.edu** **Telephone: 301-405-0678** *This research has been reviewed according to the University of Maryland, College Park IRB procedures for research involving human subjects.*
Statement of Consent	*Your signature indicates that you are at least 18 years of age; you have read this consent form or have had it read to you; your questions have been answered to your satisfaction and you voluntarily agree to participate in this research study. You will receive a copy of this signed consent form.* *If you agree to participate, please sign your name below.*

Signature and Date	**NAME OF SUBJECT [Please Print]**	
	SIGNATURE OF SUBJECT	
	DATE	

Appendix H: Research Question Map

RQ	Research Question	Conceptual or Theoretical Framework	Interview Question Examples
RQ1	**How do young adults make meaning of sexual health?**	Sexual Health	How would you define sexual health?
			What comes to mind when I mention sexual health? *Probe:* Why were these your first thoughts?
			What does sexual health mean to you? *Probe:* How do you think sexual health fits into overall health?
			What do you know about STDs?
RQ1.1	To what extent do young adults perceive poor sexual health as a severe problem?	Sexual Health; HBM; STOPS	What sort of things might comprise your sexual health? *Probe:* Which of these are the biggest concerns for you?
RQ1.2	What motivates young adults to want to adopt healthy sexual behaviors?	Sexual Health; HBM; STOPS	When do you look for sexual health information?
			What factors motivate you to make healthier choices in regards to sexual health?
RQ1.3	What constraints inhibit young adults from adopting healthy sexual behaviors?	Sexual Health; HBM; STOPS	What constrains you to make healthier choices in regards to sexual health?
			Out of these constraints, what would you consider to be the biggest constraint to making healthier decisions about sexual health? *Probe:* What would you consider to be the biggest benefit?
RQ1.4	To what extent are young adults involved with the issue of sexual health?	Sexual Health; HBM	Do you feel that accurate, understandable sexual health information and resources are readily available to you? *Probe:* Why or why not?
			Where did you first learn about sexual health?
RQ2	**To what extent do young adults identify their sexual health information needs online?**	E-health; Online Information Seeking	Where have you learned about sexual health? *Probe:* Friends? Family? Doctor's office? TV/magazines? Who is your most trusted source of information about sexual health? Why?

			Where do you look for sexual health information? *Probes:* Traditional media? Social Media? What kind of information are you looking for?
			Have you ever turned to the Internet for sexual health information? *Probe:* Did you find online information to be helpful? Why or why not?
RQ2.1	What cues to action motivate young adults to seek sexual health information online?	Sexual Health; E-Health; Online Information Seeking; HBM	When do you look for sexual health information?
			Do you think the Internet is helpful in making decisions about your health?
			Have you ever turned to the Internet for sexual health information? *Probes:* Did you find online information to be helpful? Why or why not?
RQ2.2	What constraints inhibit young adults from seeking sexual health information online?	Sexual Health; E-Health; Online Information Seeking; HBM; STOPS	What constraints you to make healthier choices about preventing STDs and preventing pregnancy?
RQ3	**How do young adults make meaning of the GYT: Get Yourself Tested campaign?**	E-health; Campaigns	What are your first thoughts about these materials?
			What do you think about the look and feel of these materials?
			What do you think this campaign is about?
			How do these messages make you feel?
			To what extent do you think these messages are targeted to you? *Probe:* If they are not, whom do you believe the messages target?
			Do these messages effectively convey the risks of STDs? Why or why not?
			Do these messages effectively convey the benefits of getting tested?
			Do these messages move you to get tested? Why or why not?
			How would you change the message if you could make them "talk" to you better?
			Who would be the best spokesperson for these materials?
			Would you ever share these materials?

			How well do you feel like the messages in these materials address your needs for information?
RQ4	**How do you adults make meaning of online health information seeking in general?**	E-health; Online Information Seeking	How important is it for you to be able to access health resources on the Internet?
			What kind of health resources do you look for (or have you used) online?
			What (if any) social media channels do you use: *Probes:* Do you use social media to get health information? Which forms for you find the most helpful? In what ways has social media helped you make informed health decisions? How do you think social media can be improved to serve your health needs better?
			What online messages have you seen on sexual health, if any? *Probes:* Can you describe them? What did they communicate to you? How did you feel receiving them? What common themes did you find in these messages?
RQ4.1	How do young adults assess the quality of online health information?	E-health; E-health Literacy; Online Information Seeking	How would you rate the quality of health sources online? *Probes:* How do you assess quality and accuracy or online information? What sources do you consider to be credible sources of online health information?
RQ5	**What type of public(s) do young adults constitute around getting tested for STDs?**	STOPS; Sexual Health	What (if anything) do these message make you think, feel or want to do? *Probe:* Would you consider getting tested given these materials? Why or why not?

References

About GYT. (2011). Retrieved from http://www.itsyoursexlife.com/gyt/about/

Abraham, C., Wight, D., & Scott, S. (2002). Developing the SHARE Sex Education Programme. From theory to classroom implementation. In D. Rutter & L. Quine (Eds.), *Changing health behaviour: Research and practice with social cognition models* (pp. 28-48). Buckingham, England: Open University Press.

Acton, W. (1865). *The functions and disorders of the reproductive organs in childhood, youth, adult age, and advanced life considered in their physiological, social, and moral response.* Philadelphia: Lindsay and Blakiston.

Ad Council (2011). *The classics.* Retrieved from http://adcouncil.org/Our-Work/The-Classics

Adelman, M. B., Parks, M. R., & Albrecht, T. L. (1987). Beyond close relationships: Support in weak ties. In T. L. Albrecht & M. B. Adelman (Eds.), *Communicating social support* (pp. 126-147). Newbury Park, CA: Sage.

Aggleton, P., & Campbell, C. Working with young people – towards an agenda for sexual health. *Sexual and Relationship Therapy, 15*(3), 283-296.

Ahern, D. K. (2007). Challenges and opportunities of eHealth research. *American Journal of Preventive Medicine*, *32*(5, Supplement), S75–S82.

Ahern, D. K., Kreslake, J. M., Phalen, J. M., & Bock, B. (2006). What is eHealth (6): Perspectives on the evolution of eHealth research. *Journal of Medical Internet Research*, *8*(1).

American Library Association (1989). *Presidential Committee on Information Literacy: Final report.* Washington DC: Association of College and Research Libraries.

Ancker, J. S., Carpenter, K. M., Greene, P., Hoffman, R., Kukafka, R., Marlow, L. A. V., Prigerson, H. G., et al. (2009). Peer-to-peer communication, cancer prevention, and the Internet. *Journal of Health Communication*, *14*, 38-46.

Athow, D. (2007, August 13). *College students online: A parallel life on social networks.* Retrieved from http://www.itproportal.com/2007/08/13/college-students-online-a-parallel-life-on-social-networks/

Atkin, C. (1994). Designing persuasive health messages. In L. Sechrest, T. Backer, E. Rogers, T. Campbell, & M. Grady (Eds.), *Effective dissemination of clinical health information* (AHCPR Publication No, 95-0015, pp. 99-110). Rockville, MD: Public Health Service, Agency for Health Care Policy and Research.

Atkin, C. (2002). Promising strategies for media health campaigns. In W. D. Crano & M. Burgoon (Eds.), *Mass media and drug prevention* (pp. 35-67). Mahwah, NJ: Lawrence Erlbaum Associates.

Atkin, C. K., & Freimuth, V. S. (2001). Formative evaluation research in campaign design. In R. E. Rice & C. K. Atkin (Eds.), *Public communication campaigns* (3rd ed., pp. 125-145). Thousand Oaks, CA: Sage Publications.

Atkinson, N. L., & Gold, R. S. (2002). The promise and challenge of ehealth interventions. *American Journal of Health Behavior, 26*(6), 494-503.

Baker, D. W., Gazamararian, J. A., Williams, M. V., Scott, T., Parker, R. M., et al. (2002). Functional health literacy and the risk of hospital admission among medicare managed care enrollees. *American Journal of Public Health, 92*(8), 1278-1283.

Baker, D. W., Parker, R. M., Williams, M. V., Clark, W. S., & Nurss, J. (1997). The relationship of patient reading ability to self-reported health and use of health services. *American Journal of Public Health, 87*(6), 1027-1030.

Balint, J., & Shelton, W. (1996). Regaining the initiative: Forging a new model of the patient-physician relationship. *Journal of the American Medical Association, 275,* 887-892.

Bandayrel, K., & Wong, S. (2011). Systematic literature review of randomized control trials assessing the effectiveness of nutrition interventions in community-dwelling older adults. *Journal of Nutrition Education and Behavior, 42*(4), 251-262.

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory.* Englewood Cliffs, NJ: Prentice Hall.

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84, 191-215.

Bandura, A. (1997). *Self efficacy: The exercise of control.* New York, NY: Freeman.

Bandura, A. (1977). *Social learning theory.* Upper Saddle River, NJ: Prentice Hall.

Barker-Benfield, G. J. (1983). The spermatic economy: A nineteenth century view of sexuality. In T. Altherr (Ed.), *Procreation or pleasure?: Sexual attitudes in American History* (pp. 47-70). Malabar, FL: Robert E. Krieger.

Bartholomew, L. K., Parcel, G. S., Kok, G., & Gottlieb, N. (2001). *Intervention mapping: A process for designing theory- and evidence-based health education programs.* Mountain View, CA: Mayfield.

Baumeister, R. F., Stillwell, A. M., & Heatherton, T. F. (1995). Guilt: An interpersonal approach, *Psychological Bulletin*, *115*(2), 243-267.

Baxter, L., Egbert, N., & Ho, E. (2008). Everyday health communication experiences of college students. *Journal of American College Health, 56*, 427-435.

Becker, M. H. (1974). The health belief model and sick role behavior. *Health Education Monographs, 2*, 409-419.

Bennett, G. G., & Glasgow, R. E. (2009). The delivery of public health interventions via the Internet: Actualizing their potential. *Annual Review of Public Health, 30*, 273-292.

Bentley, S. C. (2000). Listening in the 21st century. *International Journal of Listening, 14,* 129-142.

Berg, B. L. (2009). *Qualitative Research Methods for the Social Sciences* (Seventh.). Boston, MA: Pearson Education, Inc.

Berne, L. A., & Huberman, B. K. (2000). Lessons learned: European approaches to adolescent sexual behavior and responsibility. *Journal of Sex Education & Therapy*, *25*(2/3), 189–199.

Bernhardt, J. M., Brownfield, E. D., & Parker, R. M. (2005). Understanding health literacy. In J. G. Schwartzberg, J. VanGeest, & C. Wang (Eds.), *Understanding health literacy: Implications for medicine and public health*. Chicago, IL: AMA Press.

Bogdan, R. C., & Biklen, S. K. (1998). *Qualitative research for education: An introduction to theory and methods* (3rd ed.). Boston: Allyn & Bacon.

Booz Allen Hamilton (July 2009). *Social media and risk communications during times of crisis.* Retrieved July 23, 2009 from http://www.boozallen.com/consulting-services/services_article/42420696

Borzekowski, D. L. G., & Rickert, V. I. (2001). Adolescent cybersrufing for health information: A new resource that crosses barriers. *Archives of Pediatric and Adolescent Medicine, 155*, 813-817.

Boyce, C., & Neale, P. (2006, May). *Conducting in-depth interviews: A guide for designing and conducting in-depth interviews for evaluation input.* Pathfinder International.

Brown, J. D. (2002). Mass media influences on sexuality. *Journal of Sex Research*, *39*(1), 42–45.

Brug, J., Oenema, A., & Campbell, M. (2003). Past, present, and future of computer-tailored nutrition education. *The American Journal of Clinical Nutrition, 77*, 1028S-1034S.

Buhi, E. R., Daley, E. M., Fuhrmann, H. J., & Smith, S. A. (2009). An observational study of how young people search for online sexual health Information. *Journal of American College Health*, *58*(2), 101–111.

Bull, S., Pratte, K., Whitesell, N., Rietmeijer, C., & McFarlane, M. (2009). Effects of an Internet-based Intervention for HIV prevention: The Youthnet trials. *AIDS and Behavior*, *13*(3), 474–487.

Buller, D. B., & Floyd, A. H. L. (2012). Internet-based interventions for health behavior change. In S. M. Noar & N. G. Harrington (Eds.), *eHealth applications: Promising strategies for behavior change* (pp. 59-78). New York: Routledge.

Burak, L. J., & Meyer, M. (1997). Using the health belief model to examine and predict

    college women's cervical cancer screening beliefs and behavior. *Health Care for*

    Women International, 18(3), 251-262.

Buston, K., Wight, D., Hart, H., & Scott, S. (2002). Implementation of a teacher-

    delivered sex education programme: Obstacles and facilitating factors. *Health*

    Education Research, 17, 59-72.

Carpenter, C. J. (2010). A meta-analysis of the effectiveness of health belief model

    variables in predicting behavior. *Health Communication, 25*(8), 661-669.

Cassell, M. M., Jackson, C., & Cheuvront, B. (1998). Health communication on the

    Internet: An effective channel for health behavior change? *Journal of Health*

    Communication, 3, 71-79.

CDC (2010a). *STDs in adolescents and young adults*. Retrieved from

    http://www.cdc.gov/std/stats10/adol.htm

CDC (2000). *Most teens not provided STD or pregnancy prevention counseling during*

    check-ups. Retrieved from http://www.cdc.gov/stdconference/2000/media/

    Teens2000.htm

CDC (2010b). *Special populations: 2010 STD treatment guidelines.* Retrieved from

    http://www.cdc.gov/std/treatment/2010/specialpops.htm#adolescents

CDC (2010c). *Successes and lessons learned from the national GYT: Get Yourself Tested*

    campaign, a public-private partnership effort to promote STD testing among

    sexually active youth. Panel presented at the National Conference on Health

    Communication, Marketing and Media, Atlanta, GA.

CDC (2009). *Mpowerment*. Retrieved from http://www.cdc.gov/hiv/topics/research/prs/ resources/factsheets/Mpowerment.htm

Chan, C. V., Matthews, L. A., & Kaufman, D. R. (2009). A taxonomy characterizing complexity of consumer ehealth literacy. *AMIA Annual Symposium Proceedings, 86-90.*

Chao, P., Wuhrer, G., & Werani, T. (2005) Celebrity and foreign brand name as moderators of country-of-origin effects. *International Journal of Advertising, 24*(2), 173-192.

Cheney. G. (2000). Interpreting interpretive research: Toward perspectivism without relativism. In S. R. Corman & M. S. Poole (Eds.), *Perspectives on organizational communication: Finding common ground* (pp. 17-45). New York: Guilford.

Cho, H., & Salmon, C. (2007). Unintended effects of health communication campaigns. *Journal of Communication*, *57*, 293-317.

Chou, W-Y. S., Hunt, Y. M., Beckjord, E. B., Moser, R. P., & Hesse, B. W. (2009). Social media use in the United States: Implications for health communication. *Journal of Medical Internet Research, 11*(4), e48.

Clarke, P., & Kline, F. G. (1974). Mass media effects reconsidered: Some new strategies for communication research. *Communication research, 1*, 224-270.

Cohen, J. (1983). Peer influence on college aspirations with initial aspirations controlled. *American Sociological Review, 48*, 728-734.

Coleman, E. (2002). Promoting sexual health and responsible sexual behavior: An introduction. *Journal of Sex Research*, *39*(1), 3–6.

Corbin, J.M., & Strauss, A.C. (2008). *Basics of qualitative research, 3rd edition*. Thousand Oaks, CA: Sage.

Courtenay, W. H. (1998). College men's health: An overview and a call to action. *Journal of American College Health, 46*(6), 279-290.

Cresswell, J. (2007). *Qualitative inquiry & research design: Choosing among five approaches* (2nd ed.). Thousand Oaks, CA: Sage.

Denzin, N., & Lincoln, Y. S. (2003) *Collecting and interpreting qualitative materials*. Thousand Oaks, CA: Sage.

Denzin, N. K., & Lincoln, Y. S. (Eds.). (2008). *The landscape of qualitative research: Theories and issues* (3rd ed.). Thousand Oaks, CA: Sage Publications.

Derzon, J. H., & Lipsey, M. W. (2002). A meta-analysis of the effectiveness of mass communication for changing substance-use knowledge, attitudes, and behavior. In W. D. Crano & M. Burgoon (Eds.), *Mass media and drug prevention: Classic and contemporary theories and research* (pp. 231–258). Mahwah, NJ: Lawrence Erlbaum.

Dewey, J. (1939). *Theory of valuation*. Chicago: University of Chicago Press.

Dexter, L. A. (1970). *Elite and specialized interviewing.* Evanston, IL: Northwestern University Press.

Dilorio C., Resnicow K., Thomas S., Wang D. T., Dudley W. N., Van Marter D. F., & Lipana J. (2002). Keepin' it R.E.A.L.!: Program description and results of baseline assessment. *Health Education and Behavior, 29*(1), 104-23.

Downs, J. S., Murray, P. J., Bruine de Bruin, W., Penrose, J., Palmgren, C., & Fischhoff, B. (2004). Interactive video behavioral intervention to reduce adolescent females' STD risk: a randomized controlled trial. *Social Science & Medicine*, *59*(8), 1561–1572.

Eagly, A. H., Ashmore, R. D., Makhijani, M. G., & Longo, L. C. (1991) 'What is beautiful is good, but…': a meta-analytic review of research on the physical attractiveness stereotype. *Psychology Bulletin, 110*(1), 109-128.

Edwards, W. M., & Coleman, E. (2004). Defining sexual health: A descriptive overview. *Archives of Sexual Behavior, 33*(3), 189-195.

Eisenberg, N. (2000). Emotion, Regulation, and Moral Development, *Annual Review of Psychology, 51*, 665-697.

Eng, T. R. (2001). *The eHealth landscaoe: A terrain map of emerging information and communication technologies in health and health care.* Princeton, NJ: The Robert Wood Johnson Foundation.

Eng, T. R. (2002). eHealth research and evaluation: Challenges and opportunities. *Journal of Health Communication*, *7*, 267-272.

Escoffery, C., Miner, K. R., Adame, D. D., Butler, S., McCormick, L., & Mendell, E. (2005). Internet use for health information among college students. *Journal of American College Health, 53*, 183-188.

Eysenbach, G. (2005). The Law of Attrition. *Journal of Medical Internet Research*, *7*(1), e11.

Farquharson, L., Noble, L., Barker, C., & Behrens, R. H. (2004). Health beliefs and

    communication in the travel clinic as predictors to adherence to malaria

    chemoprophylaxis. *British Journal of Health Psychology, 9*, 201-217.

Flora, J. (2001). The Stanford community studies: Campaigns to reduce cardiovascular

    disease. In R. E. Rice & C. K. Atkin (Eds.), *Public communication campaigns* (3rd

    ed., pp. 193-213). Thousand Oaks, CA: Sage.

Fontana, A., & Frey, J. H. (2003). The interview: From structured questions to negotiated

    text. In N. K. Denzin & Y. S. Lincoln (Eds.), *Collecting and interpreting*

    qualitative materials (pp. 61-106). Thousand Oaks, CA: Sage.

Forhan, S. E., Gottlieb, S. L., Sternberg, M. R., Xu, F., Datta, S. D., McQuillan, G. M.,

    Berman, S. M., & Markowitz, L. E. (2009). Prevalence of sexually transmitted

    infections among female adolescents aged 14 to 19 in the United States. *Pediatrics,*

    124(6), 1505-1512.

Fortmann, S. P., Williams, P. T., Hulley, S. B., Haskell, W. L., & Farquhar, J. W. (1981).

    Effect of health education on dietary behavior: The Stanford Three Community

    study. *American Journal of Clinical Nutrition, 34*, 2030-2038.

Fotheringham, M. J., Owies, D., Leslie, E., & Owen, N. (2000). Interactive health

    communication in preventive medicine: Internet-based strategies in teaching and

    research. *American Journal of Preventive Medicine, 19*, 113-120.

Fox, S. (2011). *The social life of health information, 2011*. Pew Internet and American

    Life Project. Retrieved May 18, 2011 from http://www.pewinternet.org/

Fox, S., & Rainie, L. (2002). *Vital decisions: A Pew Internet health report.* Retrieved

    from http://www.pewinternet.org/Reports/2002/Vital-Decisions-A-Pew-Internet-

    Health-Report/Summary-of-Findings.aspx

Frank, D., Swedmark, J., & Grubbs, L. (2004). Colon cancer screening in African

    American women. *Association of Black Nursing Faculty, 15*(4), 67-70.

Friedman, A., McFarlane, M., Habel, M., Gardner, W., & Kachur, R. (2010). *GYT*

    development, implementation & partnership processes – the CDC perspective.

    Panel presented at the National Conference on Health Communication, Marketing

    and Media, Atlanta, GA.

Furger, R. (1996). I'm okay, you're on-line. *PC World, 14*, 310-312.

Galarce, E. M., Ramanadhan, S., & Viswanath, K. (2011). Health information seeking. In

    T. L. Thompson, R. Parrott, & J. F. Nussbaum (Eds.), *The Routledge Handbook of*

    Health Communication (2nd Ed.) (pp. 167-180). New York, NY: Routledge.

Gans, K. M., Risica, P. M., Strolla, L. O., Fournier, L., Kirtania, U., Upegui, D., Zhao, J.,

    George, T., & Acharyya, S. (2009). Effectiveness of different methods for

    delivering tailored nutrition education to low income, ethnically diverse adults.

    International Journal of Behavioral Nutrition and Physical Activity, 6(24), 1-11.

Geertz, C. (1973). Thick description: Towards an interpretive theory of culture. In *The*

    Interpretation of Cultures (pp. 3-30). New York, Basic Books.

Giami, A. (1996). The influence of an epidemiological representation of sexuality: The

    ACSF survey questionnaire. In M. Bozon & H. Leridon (Eds.), *Sexuality and*

    social sciences: An analysis of the French Sexual Behavior Survey (pp. 57-82).

    London: Dartmouth.

Giami, A. (2002). Sexual health: The emergence, development, and diversity of a concept. *Annual Review of Sex Research*, *13*, 1.

Gittelsohn, J., Steckler, A., Johnson, C. C., Pratt, C., Grieser, M., Pickrel, J., Stone, E. J., et al. (2006). Formative research in school and community-based health programs and studies: "State of the art" and the TAAG approach. *Health Education & Behavior*, *33*(1), 25-39.

Glanz, K., Rimer, B. K., & Lewis, F. M. (Eds.), (2002). *Health behavior and health education: Theory, research and practice.* San Francisco: Jossey-Bass.

Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory*. Chicago: Aldine.

Glasgow, R. E. (2010). Interactive media for diabetes self-management: Issues in maximizing public health impact. *Medical Decision Making, 30*, 745-758.

Glasgow, R. E., & Toobert, D. J. (2000). Brief, computer-assisted diabetes dietary self-management counseling: Effects on behavior, physiologic outcomes, and quality of life. *Medical Care, 38*(11), 1062-1073.

Glasgow, R. E., Kurz, D., King, D., Dickman, J. M., Faber, A. J., Halterman, E., Woolley, T., Toobert, D. J., Strycker, L. A., Estabrooks, P. A., Osuna, D., & Rizwoller, D. (2011). Twelve-month outcomes of an Internet-based diabetes self-management support program. *Patient Education and Counseling,*

Glueckauf, R. L., & Lustria, M. A. (2008). *eHealth intervention outcome research: Will it benefit underserved rural and ethnic minority populations?* Paper presented at the International Communication Association annual meeting, Montreal, Canada.

Goetz, T. (2010). *The decision tree: Taking control of your health in the new era of personalized medicine.* New York: Rodale.

Goldsmith, R., Lafferty, B., & Newell, S. (2000) The impact of corporate credibility and celebrity credibility on consumer reaction to advertisements and brands. *Journal of Advertising, 29*(3), 43-54.

Graham, M. E., Liggons, Y., & Hypolite, M. (2002). Health beliefs and self breast examination in black women. *Journal of Cultural Diversity, 9*(2), 49-54.

Gray, R., & Robertson, L. (2005). Effective internal communication starts at the top. *Communication World, 22*, 26-28.

Gray, N. J., Klein, J. D., Noyce, P. R., Sesselberg, T. S., & Cantrill, J. A. (2005). Health information-seeking behaviour in adolescence: The place of the Internet. *Social Science & Medicine*, *60*(7), 1467–1478.

Greene, K., & Brinn, L. S. (2003). Messages influencing college women's tanning bed use: Statistical versus narrative evidence format and a self-assessment to increase perceived susceptibility. *Journal of Health Communication, 8*, 443-461.

Grunig, J. E. (1997). A situational theory of publics: conceptual history, recent challenges and new research. In D. Moss, T. MacManus, & D. Vercic (Eds.), *Public relations research: An international perspective* (pp. 3-48). London: International Thomson Business Press.

Grunig, J. E., & Childers, L. (1988, July). *Reconstruction of a situational theory of communication: Internal and external concepts as identifiers of publics for AIDS.* Paper presented to the Association for Education in Journalism and Mass Communication, Portland, OR.

Grunig, J. E., & Hunt, T. (1984). *Managing public relations.* New York: CBS College

    Publishing.

Grunig, J. E., & Ipes, D. A. (1983). The anatomy of a campaign against drunk driving.

    Public Relations Review, 9(2), 36-53.

Grunig, J. E. & Repper, F. C. (1992). Strategic management: Publics and issues. In J. E.

    Grunig (Ed.), *Excellence in public relations and communication management* (pp.

    117-157). Mahwah, NJ: Lawrence Erlbaum Associates, Publishers.

Grunig, J.E., Grunig, L.A., & Dozier, D. M. (2006). The excellence theory. In C. H.

    Botan and V. Hazleton (Eds.), *Public relations theory II* (pp. 21-62). Mahwah,

    NJ: Lawrence Erlbaum.

Guba, E. G., & Lincoln, Y. S. (1989). *Fourth generation evaluation.* Newbury Park, CA:

    Sage.

Guba, E. G., & Lincoln, Y. S. (1994). Competing paradigms in qualitative research. In N.

    K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 105-

    117). Thousand Oaks, CA: Sage.

Guttmacher Institute (2002). *In brief: Facts on American teens' sources of information

    about sex.* Retrieved from http://www.guttmacher.org/pubs/FB-Teen-Sex-Ed.html

Hafner, K. (1998, October 15). Library grapples with Internet freedom. *New York Times,*

    G1.

Hansen, D. L., Derry, H. A., Resnick, P. J., & Richardson, C. R. (2003). Adolescents

    searching for health information on the Internet: An observational study. *Journal

    of Medical Internet Research, 5*, e25.

Health e-Technologies Initative (2012). Retrieved from http://www.hetinitiative.org/

Henny, K. D., Crepaz, N., Lyles, C. M., Marshall, K. J., Aupont, L. W., Jacobs, E. D.,
Liau, A., et al. (2012). Efficacy of HIV/STI behavioral interventions for
heterosexual African American men in the United States: A meta-analysis. *AIDS Behavior, 16,* 1092-1114.

Hochbaum, G. M. (1958). *Public participation in medical screening programs: A sociopsychological study.* PHS publication no. 572. Washington, DC: U.S.
Government Printing Office.

Hoff, T., Mishel, M., & Binns, A. (2010). *Reviewing the development & partnership process of GYT: The KFF perspective.* Panel presented at the National Conference
on Health Communication, Marketing and Media, Atlanta, GA.

Hong, T. (2006). The influence of structural and message features on web site credibility.
Journal of the American Society for Information Science and Technology, 57(1),
114-127.

Hornik, R. C. (2002). Public health communication: Making sense of contradictory
evidence. In R. C. Hornik (Ed.), *Public health communication: Evidence for behavior change.* Mahwah, NJ: Lawrence Erlbaum Associates.

Hornik, R., & Yanovitzky, I. (2003). Using theory to design evaluations of
communication campaigns: The case of the National Youth Anti-Drug Media
Campaign. *Communication Theory*, *13*(2), 204–224.

Hounton, S. H., Carabin, H., & Henderson, N. J. (2005). Towards an understanding of
barriers to condom use in Benin using the health belief model: A cross-sectional
survey. *BMC Public Health, 5*(8).

Houston, T. K., Sands, D. Z., Nash, B. R., & Ford, D. E. (2003). Experiences of
physicians who frequently use e-mail with patients. *Health Communication, 15*,
515.

Hughes, A. (2010). Using social media platforms to amplify public health messages: An
examination of principles and best practices. *Ogilvy Washington & The Center for
Social Impact Communication at Georgetown University*. Retrieved from
http://smexchange.ogilvypr.com/wp-content/uploads/2010/11/
OW_SM_WhitePaper.pdf

Institute of Medicine (2000, September 27). *No time to lose: Getting more from HIV
prevention.* Retrieved from http://www.iom.edu/Reports/2000/No-Time-to-Lose-
Getting-More-From-HIV-Prevention.aspx

Institute of Medicine. (2009). *Health literacy, eHealth, and communication: Putting the
consumer first. Workshop summary*. Washington DC: The National Academies
Press.

Janz, N. K., & Becker, M. H. (1984). The health belief model: A decade later. *Health
Education Quarterly, 11*(1), 1-47.

Jemmott, J. B., Jemmott, L. S., & Fong, T. (1992). Reductions in HIV risk-associated
sexual behaviors among black male adolescents: Effects of an AIDS prevention
intervention. *American Journal of Public Health, 82*, 372-377.

Jemmott, J. B., Jemmott, L. S., Fong, G. T. (1998). Abstinence and safer sex HIV risk-
reduction interventions for African American adolescents. *JAMA, 279*(19),1529-
1536.

Jessor, R. (1987). Problem-behavior theory, psychosocial development, and adolescent

problem drinking. *British Journal of Addiction, 82*(4), 331-342.

Jones, S. (2002). *The Internet goes to college*. Washington DC: Pew Internet & American

Life Project.

Kalichman, S. C., & Rompa, D. (2000). Functional health literacy is associated with

health status and health-related knowledge in people living with HIV-AIDS.

Journal of Acquired Immune Deficiency Syndromes, 25(4), 337-344.

Kalichman, S. C., Ramachandran, B. A., & Catz, S. (1999). Adherence to combination

antiretroviral therapies in HIV patients of low health literacy. *Journal of General

Internal Medicine, 14*(5), 267-273.

Kegeles, S. M., Hays, R. B., Coates, T. J. (1996). The Mpowerment Project: A

community-level HIV prevention intervention for young gay men. *American

Journal of Public Health, 86,* 1129 – 1136.

Keller, S. N., & Brown, J. D. (2002). Media interventions to promote responsible sexual

behavior. *Journal of Sex Research*, *39*(1), 67–72.

Kiene, S. M., & Barta, W. D. (2006). A brief individualized computer-delivered sexual

risk reduction intervention increases HIV/AIDS preventive behavior. *Journal of

Adolescent Health*, *39*(3), 404–410.

Kim, J.-N., & Grunig, J. E. (2011). Problem solving and communicative action: A

situational theory of problem solving. *Journal of Communication, 61*, 120-149.

Kim, J.-N., Shen, H., & Morgan, S. E. (2011). Information behaviors and problem chain

recognition effect: Applying situational theory of problem solving in organ

donation issues. *Health Communication, 26*, 171-184.

Kincaid, D. L., Coleman, P. L., Rimon II, J. G., & Silayan-Go, A. (1991, November). *The Philippines multimedia campaign for young people project: Summary of evaluation results*. Paper presented to the American Public Health Association, Atlanta, GA.

Kirby, D., Short, L., Collins, J., Rugg, D., Kolbe, L., Howard, M., et al. (1994). School-based programs to reduce sexual risk behaviors: A review of effectiveness. *Public Health Reports, 10*, 339-360.

Kirk, J., & Miller, M. L. (1986). *Reliability and validity in qualitative research.* Beverly Hills, CA: Sage.

Kirsch, I., Jungeblut, A., Jenkins, L., & Kolstad, A. (1993). *Adult literacy in America: A first look at the results of the National Adult Literacy Survey*. Washington DC: National Center for Education Statistics, U.S. Department of Education.

Kirscht, J. P. (1974). The health belief model and illness behavior. *Health Education Monographs, 2*, 387-408.

Kopfman, J. E., Smith, S. K., Ah Yun, J., & Hodges, A. (1998). Affective and cognitive reactions to narrative versus statistical organ donation messages. *Journal of Applied Communication Research, 26*, 279-300.

Kraan, C. F., Lebrun, C., Seydel, E., Smit, W., van de Laar, M., Drossaers-Bakker, W., Drossaert, C., et al. (2006). *Online support groups: Who uses them, what are the participants talking about, and what are the disadvantages?* Paper presented at the International Communication Association annual conference, Dresden, Germany.

Kraschnewski, J. L., Stuckey, H. L., Rovniak, L. S., Lehman, E. B., Reddy, M., Poger, J. M., Kephart, D. K., Coups, E. J., & Sciamanna, C. N. (2011). Efficacy of a weight-loss website based on positive deviance: A randomized trial. *American Journal of Preventive Medicine, 41*(6), 610-614.

Kreps, G. L., Bonaguro, E. W., & Query, J. L. (1997). Listening: A crucial competency for effective health care delivery. *Listening in everyday life.* Lanham, MD: University Press of America.

Kreps, G. L., & Neuhauser, L. (2010). New directions in eHealth communication: Opportunities and challenges. *Patient Education and Counseling*, *78*, 329-336.

Krueger, R. A. (1994). *Focus groups: A practical guide for applied research* (2nd ed.). Thousand Oaks, CA: Sage.

Kreuter, M. W., & Wray, R. J. (2003). Tailored and targeted health communication: Strategies for enhancing information relevance. *American Journal of Health Behavior, 27*, S227-S232.

Kutner, M., Greenberg, E., Jin, Y., & Paulsen, C. (2006). The Health Literacy of America's Adults: Results From the 2003 National Assessment of Adult Literacy (NCES 2006-483). U.S. Department of Education. Washington DC: National Center for Education Statistics

Kvale, S. (1995). The social construction of validity. *Qualitative Inquiry, 1*, 19-40.

Laine, C. & Davidoff, F. (1996). Patient-centered medicine: A professional evolution. *Journal of the American Medical Association, 275,* 152-155.

Lather, P. (1991). *Getting smart: Feminist research and pedagogy with/in the postmodern*. New York, NY: Routledge.

Laugksch, R. C. (2000). Scientific literacy: A conceptual overview. *Science Education, 84*(1), 71-94.

Lenhart, A., Purcell, K., Smith, A., & Zickuhr, K. (2010). *Social media and young adults.* Retrieved from http://www.pewinternet.org/Reports/2010/Social-Media-and-Young-Adults.aspx

Leridon, H., Charbit, Y., Collomb, P., Sardon, J. P., & Toulemon, L. (1987). *La seconde revolution contraceptive. La regulation des naissance en France de 1950 a 1985.* [The second contraceptive revolution. Birth control in France from 1850 to 1985]. Paris: Institut National d'Etudes Demographiques. (Travaux et Documents, No. 117).

Lewis, J. E., Malow, R. M., & Ireland, S. J. (1997). HIV/AIDS risk in heterosexual college students: A review of a decade of literature. *Journal of American College Health, 45*(4), 147-158.

Lin, P., Simoni, J. M., & Zemon, V. (2005). The health belief model, sexual behaviors, and HIV risk among Taiwanese immigrants. *AIDS Education and Prevention, 17*(5), 469-483.

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry.* Thousand Oaks, CA: Sage.

Lincoln, Y. S., & Guba, E. G. (2003). Paradigmatic controversies, contradictions, and emerging confluences. In Y. S. Lincoln, & N. K. Denzin (Eds.), *The landscape of qualitative research: Theories and issues* (2nd ed.)(pp. 163-185). Thousand Oaks, CA: Sage Publications.

Lindlof, T. R., & Taylor, B. C. (2002). *Qualitative communication research methods* (2nd ed.). Thousand Oaks, CA: Sage Publications.

Lindlof, T. R., & Taylor, B. C. (2010). *Qualitative communication research methods* (3rd ed.). Thousand Oaks, CA: Sage.

Lindsey, L. (2005). Anticipated guilt as behavioral motivation: An examination of appeals to help unknown others through bone marrow donation. *Human Communication Research, 31,* 453-481.

Logan, R. K. (1995). *The fifth language: Learning a living in the computer age.* Toronto, ON: Stoddart.

Lovelock, C. H., & Weinberg, C. B. (1984). *Marketing for public and nonprofit managers.* New York: Wiley.

Lunt, P., & Livingstone, S. (1996). Rethinking the focus group in media and communications research. *Journal of Communication, 46*, 79-97.

Lustria, M., Brown, L., & Davis, R. (2007). *10 Years of consumer health informatics: What have we learned about how to design successful web-based interventions?* Paper presented at the National Communication Association annual conference, Chicago, IL.

Lustria, M. L. A., Cortese, J., Noar, S. M., & Glueckauf, R. L. (2009). Computer-tailored health interventions delivered over the web: Review and analysis of key components. *Patient Education and Counseling*, *74*(2), 156–173.

Mpowerment Project (2009). Retrieved from http://www.mpowerment.org

MTV (2009). *MTV's GYT campaign spurs nationwide movement to 'get yourself tested'.* Retrieved from http://www.prnewswire.com/news-releases/mtvs-gyt-campaign-spurs-nationwide-movement-to-get-yourself-tested-61961582.html

Mace, D. R., Bannerman, R. H. O., & Burton, J. (1974). *The teaching of human sexuality in schools for health professions* (WHO Public Health Papers, No. 57). Geneva: World Health Organization.

Mackert, M., Kahlor, L., Tyler, D., & Gustafson, J. (2009). Designing e-health interventions for low-health-literate culturally diverse parents: Addressing the obesity epidemic. Telemed J E Health, 15(7), 672-677.

Mason, J. (2002). *Qualitative researching* (2nd ed.). Thousand Oaks, CA: Sage.

Masters, W., & Johnson, V. (1966). *Human sexual response.* Boston: Little, Brown.

Maswanya, E. S., Moji, K., Horiguchi, I., Nagata, K., Ayoyagi, K., Honda, S., & Takemoto, T. (1999). Knowledge, risk perception of AIDS and reported sexual behavior among students in secondary schools and colleges in Tanzania. *Health Education Research, 14*, 185-196.

Maxwell, J. A. (2005). *Qualitative research design: An interactive approach* (2nd ed.). Thousand Oaks, CA: Sage.

McCarthy, B. W. (1994). Sexually compulsive men and inhibited sexual desire. *Journal of Sex & Marital Therapy*, *20*(3), 200–209.

McCracken, G. (1988). *The long interview*. Newbury Park, CA: Sage Publications.

McGuire, W. J. (1989). Theoretical foundations of campaigns. In R. E. Rice & C. K. Atkin (Eds.), *Public communication campaigns* (Second Edition., pp. 43-65). Newbury Park, CA: Sage Publications.

Mendelsohn, H. (1973). Some reasons why information campaigns can succeed. *Public Opinion Quarterly, 37*, 50-61.

Merriam, S. B. (2009). *Qualitative research: A guide to design and implementation*. San

    Francisco, CA: Jossey-Bass.

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis (2nd ed.)*. Thousand

    Oaks, CA: Sage.

Millstein, S. G., & Halpern-Felsher, B. L. (2002). Judgments about risk and perceived

    invulnerability in adolescents and young adults. *Journal of Research on*

    Adolescents, 12, 399-422.

Morahan-Martin, J. M. (2004). How Internet users find, evaluate, and use online health

    information: A cross-cultural review. *Cyberpsychology & Behavior, 7*(5), 497-

    510.

Morgan, D. (1988). *Focus groups as qualitative research.* Newbury Park, CA: Sage

    Publications.

Mort, F. (2000). *Dangerous sexualities. Medico-moral politics in England since 1830.*

    London: Routledge.

Murray-Johnson, L., & Witte, K. (2003). Looking toward the future: Health message

    design strategies. In T. L. Thompson, A. M. Dorsey, K. I. Miller, R. Parrott (Eds.),

    Handbook of health communication (pp. 473-496). Mahwah, NJ: Lawrence

    Erlbaum Associates.

Myhre, S. L., & Flora, J. A. (2000). HIV/AIDS communication campaigns: Progress and

    prospects. *Journal of Health Communication 5*(Suppl.), 29-45.

The National Campaign to Prevent Teen and Unplanned Pregnancy (2007a). *Making*

    proud choices! Retrieved from http://www.thenationalcampaign.org/ea2007/

    desc/making.aspx

The National Campaign to Prevent Teen and Unplanned Pregnancy (2007b). *Becoming a*

    responsible teen (BART). Retrieved from http://www.thenationalcampaign.org/

    ea2007/desc/bart.aspx

The National Campaign to Prevent Teen and Unplanned Pregnancy (2007c). *Keepin' it*

    R.E.A.L. Retrieved from http://www.thenationalcampaign.org

    /ea2007/desc/real.aspx

The National Campaign to Prevent Teen and Unplanned Pregnancy (2011). *Bedsider.org:*

    A new free online birth control support network for young adults. Retrieved from

    http://www.thenationalcampaign.org/Bedsider/BedsiderStatement.pdf

Neuhauser, L., & Kreps, G. L. (2003). Rethinking communication in the e-health era.

    Journal of Health Psychology, 8, 7-22.

Ni, L., & Kim, J.-N. (2009). Classifying publics: Communication behaviors and problem-

    solving characteristics in controversial issues. *International Journal of Strategic*

    Communication, 3(4), 1–25.

Noar, S. (2006). A 10-year retrospective of research in health mass media campaigns:

    Where do we go from here? *Journal of Health Communication*, *11*, 21-42.

Noar, S. (2009). Challenges in evaluating health communication campaigns: Defining the

    issues. *Communication Methods and Measures, 3*, 1-11.

Noar, S. M., Palmgreen, P., Chabot, M., Dobransky, N., & Zimmerman, R. (2009). A 10-

    year systematic review of HIV/AIDS mass communication campaigns: Have we

    made progress? *Journal of Health Communication*, *14*, 15–42.

Noar, S. M., Black, H. G., & Pierce, L. B. (2009). Efficacy of computer technology-based

    HIV prevention interventions: a meta-analysis. *AIDS*, *23*(1), 107–115.

Noar, S. M., Pierce, L. B., & Black, H. G. (2010). Can computer-mediated interventions change theoretical mediators of safer sex? A meta-analysis. *Human Communication Research*, *36*(3), 261–297.

Noar, S. M., Harrington, N. G., & Aldrich, R. S. (2009). The role of message tailoring in the development of persuasive health communication messages. *Communication Yearbook, 33*, 72-133.

Noar, S. M. & Harrington, N. G. (2012a). Computer-tailored interventions for improving health behaviors. In S. M. Noar & N. G. Harrington (Eds.), *eHealth applications: Promising strategies for behavior change* (pp.128-146). New York: Routledge.

Noar, S. M. & Harrington, N. G. (2012b). eHealth applications: An introduction and overview. In S. M. Noar & N. G. Harrington (Eds.), *eHealth applications: Promising strategies for behavior change* (pp. 3-16). New York: Routledge.

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), e9.

Nutbeam, D. (2000). Health literacy as a public health goal: A challenge for contemporary health education and communication strategies into the 21st century. *Health Promotion International, 15*(3), 259-267.

O'Brien, B. (2012). *The history of eHealth*. Retrieved from http://www.ehow.com/about_5439044_history-ehealth.html

Oh, H., Rizo, C., Enkin, M., & Jadad, A. (2005). What is eHealth: A systematic review of published definitions. *Journal of Medical Internet Research, 7*(1), e1.

Ohanian, R. (1990) Construction and validation of a scale to measure celebrity endorsers'

    perceived expertise, trustworthiness, and attractiveness. *Journal of Advertising,*

    19(3), 39-52.

Oyekale, A. S., & Oyekale, T. O. (2010). Application of health belief model for

    promoting behaviour change among Nigerian single youths. *African Journal of*

    Reproductive Health, 14(2), 63-75.

Pagliari, C., Sloan, D., Gregor, P., Sullivan, F., Detmer, D., Kahan, J. P., Oortwijn, W., et

    al. (2005). What is eHealth (4): A scoping exercise to map the field. *Journal of*

    Medical Internet Research, *7*(1), e9.

Paisley, W. J. (1981). Public communication campaigns: The American experience. In R.

    E. Rice & W. J. Paisley (Eds.), *Public communication campaigns* (pp. 15-40).

    Beverly Hills, CA: Sage.

Paisley, W. (1998). Scientific literacy and the competition for public attention and

    understanding. *Science Communication, 20*, 70-80.

Paisley, W. J. (2001). Public communication campaigns: The American experience. In R.

    E. Rice & C. K. Atkin (Eds.), *Public communication campaigns* (3rd ed., pp. 3-

    21). Thousand Oaks, CA: Sage Publications.

Panchaud, C., Singh, S., Feivelsen, D., & Darroch, J. E. (2000). Sexually transmitted

    diseases among adolescents in developed countries. *Family Planning*

    Perspectives, 32, 24-32, 45.

Parker, R. M., Baker, D. W., Williams, M. V., & Nurss, J. R. (1995). The test of

    functional health literacy in adults: A new instrument for measuring patients'

    literacy skills. *Journal of General & Internal Medicine, 10,* 537-541.

Patton, M. Q. (2002). *Qualitative research and evaluation methods* (3rd ed.). Thousand

  Oaks, CA: Sage.

Paulussen, Th. G. W., Kok, G. J., & Schaalma, H. P. (1994). Antecedents to adoption of

  classroom-based AIDS education in secondary schools. *Health Education*

  Research, 9, 485-496.

Perloff, R. M., & Ray, G. B. (1991). An analysis of AIDS brochures directed at

  intravenous drug users. *Health Communication, 3*, 113-126.

Pew Internet & American Life Project (2009). *Social media & young adults: Challenges*

  and opportunities for STD prevention. Retrieved from

  http://www.pewinternet.org/Presentations/2010/Mar/How-Young-People-Use-

  Technology.aspx

Potter, J. W. (1996). *An analysis of thinking and research about qualitative methods*.

  Mahwah, NJ: Lawrence Erlbaum Associates.

Power, R. (2002). The application of qualitative research methods to the study of sexually

  transmitted infections. *Sexually Transmitted Infections*, *78*(2), 87–89.

Priest, A. (2010). *Foursquare and MTV partner for GYT campaign; could this be the*

  start of a location-for-a-cause trend? Retrieved from http://technorati.com/

  blogging/article/foursquare-and-mtv-partner-for-gyt/

Prochaska, J. O., Redding, C. A., & Evers, K. E. (2008). The transtheoretical model and

  stages of change. In K. Glanz, B. K. Rimer, & K. Viswanath (Eds.), *Health*

  Behavior and health education: *Theory, research and practice* (4th Ed, pp. 97-

  122). San Franscisco: Jossey-Bass.

Ratzan, S. C., & Parker, R. M. (2000). Introduction. In C. R. Seldon, M. Zom, S. C. Ratzan, & P. M. Parker (Eds.). *National library of medicine current bibliographies in medicine: Health literacy. NLM Pub No. CBM 2000-1 ed.* National Institutes of Health, US Department of Health and Human Services.

Rehm, J., Shield, K. D., Joharchi, N., & Shuper, P. A. (2011). Alcohol consumption and the intention to engage in unprotected sex: systematic review and meta-analysis of experimental studies. *Addiction, 107,* 51-59.

Reinhart, A., & Feeley, T. (2007, November). *Comparing the persuasive effects of narrative versus statistical messages: A meta-analytic review.* Paper presented at the meeting of the National Communication Association, Chicago, IL.

Reinharz, S. (1992). *Feminist methods in social research.* New York: Oxford University Press.

Rice, R. E., & Atkin, C. K. (2002). Communication campaigns: Theory, design, implementation, and evaluation. In J. Bryant & D. Zillman (Eds.), *Media effects: Advances in research and theory* (2nd ed.). Mahwah, NJ: Lawrence Erlbaum Associates.

Rittenour, C. E., & Booth-Butterfield, M. (2006). College students' sexual health: Investigating the role of peer communication. *Qualitative Research Reports in Communication, 7*(1), 57-65.

Roberto, A. J., Zimmerman, R. S., Carlyle, K. E., & Abner, E. L. (2007). A computer-based approach to preventing pregnancy, STD, and HIV in rural adolescents. *Journal of Health Communication*, *12*(1), 53–76.

Rogers, E. M. (2003). *Diffusion of innovations* (5th ed.). New York: The Free Press.

Rogers, E. M. & Storey, J. D. (1987). Communication campaigns. In C. R. Berger & S. H. Chafee (Eds.), *Handbook of communication science* (pp. 817–846). London: Sage.

Rosenstock, L. (1974). Historical origins of the health belief model. *Health Education Monographs, 2*, 328-335.

Rzepka, J. (2010). *GYT implementation & tracking: Successes from on-air, online & mobile efforts*. Panel presented at the National Conference on Health Communication, Marketing and Media, Atlanta, GA.

Rubin, H. J., & Rubin, I. S. (2005). *Qualitative interviewing: The art of hearing data* (2nd ed.). Thousand Oaks, CA: Sage.

St. Lawrence, J. S., Brasfield, T. L., Jefferson, K. W., Alleyne, E., O'Bannon, R. E., & Shirley, A. (1995). Cognitive-behavioral intervention to reduce African American adolescents' risk for HIV infection. *Journal of Consulting and Clinical Psychology*, 63, 221 – 237.

Sabee, C., Aldridge, A., Imes, R., & Bylund, C. (2005). *Clinician-patient dialogue about Internet health information: Legitimating patients through communication*. Paper presented at the International Communication Association annual conference, New York City, NY.

Sage, C. E., Southcott, A. M., & Brown, S. L. (2001). The health belief model and compliance with CPAP treatment for obstructive sleep apnoea. *Behavior Change, 18*, 177-185.

Salmon, C., & Atkin, C. (2003). Using media campaigns for health promotion. In T. L. Thompson, A. M. Dorsey, K. I. Miller, R. Parrott (Eds.), *Handbook of health communication* (pp. 449-472). Mahwah, NJ: Lawrence Erlbaum Associates.

Salmon, C. T., & Murray-Johnson, L. (2000). Communication campaign effectiveness: Critical distinctions. In R. E. Rice & C. K. Atkin (Eds.), *Public communication campaigns* (3rd ed., pp. 168-180). Thousand Oaks, CA: Sage Publications.

Sandfort, T. G. M., & Ehrhardt, A. A. (2004). Sexual health: A useful public health paradigm or a moral imperative? *Archives of Sexual Behavior, 33*(3), 181-187.

Saperstein, S. L., Atkinson, N. L., & Gold, R. S. (2007). The impact of Internet use for weight loss. *Obesity Reviews, 8*, 459-465.

Schaalma, H., Kok, G., Bosker, R., Parcel, G., Peters, L., Poelman, J., et al. (1996). Planned development and evaluation of AIDS/STD education for secondary-school students in the Netherlands: Short-term effects. *Health Education Quarterly, 23*, 469-487.

Schaalma, H., & Kok, G. (2001). A school AIDS-prevention program in the Netherlands. In K. Bartholomew, G. S. Parcel, G. Kok, & N. Gottlieb (Eds.), *Intervention mapping: Designing theory and evidence-based health promotion programs* (pp. 353-386). Mountain View, CA: Mayfield.

Schaalma, H. P., Abraham, C., Gillmore, M. R., & Kok, G. (2004). Sex education as health promotion: What does it take? *Archives of Sexual Behavior, 33*(3), 259-269.

Schwandt, T. A. (1998). Constructivist, interpretivist approaches to human inquiry. In N.

K. Denzin & Y. S. Lincoln (Eds.), *The landscape of qualitative research:*

Theories and issues (pp. 221-259). Thousand Oaks, CA: Sage.

Scott, T. L., Gazmararian, J. A., Williams, M. V., & Baker, D. W. (2002). Health literacy

and preventive health care use among medicare enrollees in a managed care

organization. *Medical Care, 40*(5), 395-404.

Sheeran, P., Abraham, C., & Orbell, S. (1999). Psychosocial correlates of heterosexual

condom use: A meta-analysis. *Psychological Bulletin, 125,* 90-132.

Silk, K. J., Atkin, C. K., & Salmon, C. T. (2011). Developing effective media campaigns

for health promotion. In T. L. Thompson, R. Parrott, & J. F. Nussbaum (Eds.), *The*

Routledge Handbook of Health Communication (2ⁿᵈ Ed.) (pp. 203-219). New York,

NY: Routledge.

Silverman, D. & Marvasti, A. (2008). *Doing qualitative research: A comprehensive*

guide. Thousand Oaks, CA: Sage.

Singh, S., & Darroch, J. E. (2000). Adolescent pregnancy and childbearing: Levels and

trends in industrialized countries. *Family Planning Perspectives, 32,* 14-23.

Singhal, A., & Rogers, E. M. (2000). *Entertainment-education: A communication*

strategy for social change. Mahwah, NJ: Lawrence Erlbaum Associates.

Skoe, E. E. A., Eisenberg, N., & Cumberland, A. (2002).The Role of Reported Emotion

in Real-Life and Hypothetical Moral Dilemmas, *Personality and Social*

Psychology Bulletin, *28*(2), 962-973.

Smith, A., Rainie, L., & Zickuhr, K. (2011, Jul 19). *College students and technology.*
    Retrieved from http://www.pewinternet.org/Reports/2011/College-students-and-
    technology/Report/Findings.aspx

Smoak, R. S. (2002). *Health literacy in America: What the health community can do
    now.* National Health Council.

Snyder, L. B. (2001). How effective are mediated health campaigns? In R. Rice & C.
    Atkin (Eds.), *Public Information Campaigns* (3rd ed.)(pp.181-190). Thousand
    Oaks, CA: Sage.

Snyder, L. (2007). Health communication campaigns and their impact on behavior.
    Journal of Nutrition Education and Behavior, *39*, S32-S40.

Snyder, L. B., & Hamilton, M. A. (2002). A meta-analysis of U.S. health campaign
    effects on behavior: Emphasize enforcement, exposure, and new information, and
    beware the secular trend. In R. C. Hornik (Ed.), *Public health communication:
    Evidence for behavior change* (pp. 357–384). Mahwah, NJ: Lawrence Erlbaum.

Snyder, L. B., Hamilton, M. A., Mitchell, E. W., Kiwanuka-Tondo, J., Fleming-Milici,
    F., & Proctor, D. (2004). A meta-analysis of the effect of mediated health
    communication campaigns on behavior change in the United States. *Journal of
    Health Communication*, *9*, 71–96.

Stevens, V. J., Glasgow, R. E., Toobert, D. J., Karanja, N., & Smith, K. S. (2003). One-
    year results from a brief, computer-assisted intervention to decrease consumption
    of fat and increase consumption of fruits and vegetables. *Preventive Medicine, 36*,
    594-600.

Strauss, A., & Corbin, J. (1998). *Basics of qualitative research: Techniques and procedures for developing grounded theory*. Thousand Oaks, CA: Sage.

Strecher, V. (2007), Internet methods for delivering behavioral and health-related interventions (eHealth). *Annual Review of Clinical Psychology, 3*, 53-76.

Stretcher, V. J., & Rosenstock, I. M. (1997). The health belief model. In K. Glanz, B. K. Rimer, & K. Viswanath (Eds.), *Health Behavior and health education*: *Theory, research and practice* (4th Ed, pp. 41-59). San Franscisco: Jossey-Bass.

Sundar, S. S., Rice, R. E., Kim, H-S., & Sciamanna, C. N. (2011). Online health information: Conceptual challenges and theoretical opportunities. In T. L. Thompson, R. Parrott, & J. F. Nussbaum (Eds.), *The Routledge Handbook of Health Communication (2nd Ed.)* (pp. 181-202). New York, NY: Routledge.

Sweetser, K. D. (2010). A losing strategy: The impact of nondisclosure in social media on relationships. *Journal of Public Relations Research, 22*(3), 288-312.

Swiader, L. (2011). *Bedsider: Rebranding birth control.* Retrieved from http://www.slideshare.net/lswiader/bedsider-rebranding-birth-control

Tangey, J. P., Miller, R. S., Flicker, L. & Barlow, D. H. (1996). Are shame, guilt, and embarrassment distinct emotions? *Journal of Personality and Social Psychology, 70,* 1256-1269.

Tate, D. F., Jackvony, E. H., & Wing, R. R. (2006). A randomized trial comparing human e-mail counseling, computer-automated tailored counseling, and no counseling in an Internet weight loss program. *Arch Intern Med, 166,* 1620-1625.

Taubenheim, A. M., Long, T., Wayman, J., Temple, S., McDonough, S., & Duncan, A. (2012). Using social media to enhance health communication campaigns. Om S. M. Noar & N. G. Harrington (Eds.), *eHealth applications: Promising strategies for behavior change* (pp. 205-220). New York: Routledge

Till, B. D. & Busler, M. (2000) The match-up hypothesis: physical attractiveness, expertise, and the role of fit on brand attitude, purchase intentions, and brand beliefs. *Journal of Advertising, 29*(3), 1-13.

Timm, S., & Schroeder, B. L. (2000). Listening/nonverbal communication training. *International Journal of Listening, 14*, 109-128.

U.S. Surgeon General (2001, July 9). *The Surgeon General's Call to Action to Promote Sexual Health and Responsible Sexual Behavior.* Retrieved from http://www.surgeongeneral.gov/library/calls/sexualhealth/call.html

Umphrey, L. (2004). Message defensiveness, efficacy, and health-related behavioral intentions. *Communication Research Reports, 21*, 329-337.

Valente, T. W. (2001). Evaluating communication campaigns. In R. E. Rice & C. K. Atkin (Eds.), *Public communication campaigns* (3rd ed., pp. 105-124). Thousand Oaks, CA: Sage Publications.

van Noort, G., Antheunis, M. L., & van Reijmersdal, E. A. (2012). Social connections and the persuasiveness of viral campaigns in social network sites: Persuasive intent as the underlying mechanism. *Journal of Marketing Communications*, *18*(1), 39–53.

van Zoonen, L. (1994). *Feminist media studies*. Thousand Oaks, California: Sage.

Vangelisti, A., & Sprague, R. (1998). Guilt and hurt: Similarities, distinctions, and

    controversial strategies. In P. Anderson and L. Guerrero (Eds.), *Handbook of*

    communication and emotion: Research, theory, application and context (pp. 123-

    154). San Diego, CA: Academic Press.

Vardeman, J. E. (2005). *Women's meaning making of cervical cancer campaigns: Using*

    a cultural approach to redefine women's involvement with their health.

    Unpublished master's thesis, University of Maryland, College Park, MD.

Vardeman, J. E., & Aldoory, L. (2008). A qualitative study of how women make

    meaning of contradictory messages about the risks of eating fish. *Health*

    Communication, 23(3), 282-291.

Viswanath, K., Ramanadhan, S., & Kontos, E. Z. (2007). Mass media and population

    health: A macrosocial view. In S. Galea (Ed.), *Macrosocial determinants of*

    population health (pp. 275-294). New York: Springer.

Wald, H. S., Dube, C. E., & Andy, D. C. (2007). Untangling the web—The impact of

    Internet use on health care and the physician–patient relationship. *Patient*

    Education & Counseling, *68*, 218-224.

Walther, J. B. (1996). Computer-mediated communication: Impersonal, interpersonal and

    hyperpersonal interaction. *Communication Research, 23*, 3-43.

Weinreich, N. K. (1999). *Hands-on social marketing: A step-by-step guide.* Thousand

    Oaks, CA: Sage Publications.

Weinstein, N. D. (1980). Unrealistic optimism about future life events. *Journal of*

    Perspectives in Sociology and Psychology, 39, 806-820.

Wellings, K. (1996). *Young women's magazines and teenage sex: A working paper.* Unpublished manuscript, Department of Public Health and Policy, London School of Hygiene and Tropical Medicine.

Wilkinson, S. (1998). Focus groups in feminist research: Power, interaction, and the co-construction of meaning. *Women's Studies International Forum, 21*, 111-125.

Witte, K. (1997). Preventing teen pregnancy through persuasive communications: Realities, myths, and the hard-fact truths. *Journal of Community Health, 22*(2), 137-154.

Witte, K. (1998). Fear as motivator, fear as inhibitor: Using the Extended Parallel Process Model to explain fear appeal successes and failures. In P. A. Andersen & L. K. Guerrero (Eds.), *The handbook of communication and emotion: Research, theory, applications, and contexts* (pp. 423-450). San Diego, CA: Academic Press.

Witte, K., Meyer, G., & Martell, D. (2001). *Effective health risk messages: A step-by-step guide.* Thousand Oaks, CA: Sage.

Witte, K., & Allen, M. (2000). A meta-analysis of fear appeals: Implications for effective public health campaigns. *Health Education and Behavior, 27*, 591-615.

Wolcott, H. F. (1995). *The art of fieldwork*. Walnut Creek, CA: AltaMire Press.

World Health Organization (2012). *Sexual health*. Retrieved from http://www.who.int/topics/sexual_health/en

Wright, K. B., & Bell, S. B. (2003). Health-related support groups on the Internet: Linking empirical findings to social support and computer-mediated communication theory. *Journal of Health Psychology, 8*, 37-52.

Wright, K. B. (2000). Perceptions of on-line support providers: An examination of

    perceived homophily, source credibility, communication and social support within

    on-line support groups. *Communication Quarterly, 48,* 44-59.

Wright, K. B. (1999). Computer-mediated support groups: An examination of

    relationships among social support, perceived street, and coping strategies.

    Communication Quarterly, *47*, 402-414.

Wright, K. B., Johnson, A. J., Bernard, D. R., & Averbeck, J. (2011). Computer-mediated

    social support: Promises and pitfalls for individuals coping with health concerns.

    In T. L. Thompson, R. Parrott, & J. F. Nussbaum (Eds.), *The Routledge handbook*

    of health communication (2nd ed., pp. 349-362). New York: Routledge.

Yep, G. A. (1993). HIV prevention among Asian-American college students: Does the

    health belief model work? *Journal of American College Health, 41*(5), 199-205.

Yin, R. K. (2009). *Case study research: Design and methods* (4th ed.). Thousand Oaks,

    CA: Sage.

Young, A. & Flower, L. (2002). Patients as partners, patients as problem-solvers. *Health*

    Communication, 14(1), 69-97.

Zimmerman, R. S., & Vernberg, D. (1994). Models of preventative health behavior:

    Comparison, critique, and meta-analysis. *Advances in Medical Sociology, 4*, 45-

    67.