

THE HEALTH-RELATED USES AND GRATIFICATIONS OF YOUTUBE:
MOTIVE, COGNITIVE INVOLVEMENT, ONLINE ACTIVITY,
AND SENSE OF EMPOWERMENT

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Dedication

I dedicate this thesis to the faculty and staff of the IUPUI Department of Communication Studies. Particularly, I dedicate this thesis to my thesis advisor Dr. Elizabeth Goering, who is tireless in offering an enlightening guidance and encouragement for my learning experience and my thesis committee members—Dr. Kim White-Mills, who deepened my knowledge and skills for quantitative research, and Dr. Maria Brann, who kindled my interest in the field of health communication. Also, I dedicate this thesis to Dr. Jung Kee Kim, without whom my passion for communication studies might never have deepened. Above all, I dedicate this thesis to my beloved parents and my brother Taejoon for their endless support and love.

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The purpose of this study was to examine the relationships among motives for health-related YouTube use, cognitive involvement with health information on YouTube, post-exposure online activity, and sense of empowerment regarding health and health care. As a result of the analysis of data from 263 participants, social utility, convenient information-seeking, habit-passing time, and exciting entertainment motives were identified as four motives for health-related YouTube use. Social utility and convenient information-seeking motives were positively related to cognitive involvement and cognitive involvement was positively related to perceived control. Social utility motive was negatively related to perceived competence, whereas convenient information-seeking motive was positively related to perceived competence. Habit-passing time motive was negatively related to goal internalization, whereas convenient information-seeking and exciting entertainment motives were positively related to goal internalization. The findings from this study imply that YouTube could be a useful health communication media for health professionals and organizations to use for empowering users in coping with health-related concerns.

Keywords: YouTube, motive, cognitive involvement, online activity, sense of empowerment

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Introduction

Health information-seeking increasingly occurs on the Internet. According to Pew Internet & American Life Project (2013), 72% of U.S. Internet users looked at Google, Bing, Yahoo, WebMD, Wikipedia, or social networking sites for health information (e.g., specific diseases, medical problems, certain medical treatments or procedures). Health-related social media use is gaining popularity especially among users with health-related concerns as social media facilitates health communication among them (e.g., sharing their own experience, emotion, or advice on a specific disease or its treatment with others; Antheunis, Tates, & Nieboer, 2013) by serving as “a forum for patient participation that extends beyond the reach of the hospital or the local clinic” (Househ, Borycki, & Kushniruk, 2014, p. 51).

With respect to this, YouTube, the online video-sharing website, can offer users a unique opportunity to be active and interactive in health communication with others. Specifically, YouTube enables users not only to conveniently search for or post health-related content (e.g., videos or comments) for free, but also to “reproduce, transport, and share stored information in ways that are quicker ... than older analog media forms” (Warnick & Heineman, 2012, p. 70). Also, YouTube can serve as a health-related online forum and social network by “facilitating user interaction through comments, video responses, and email messages” (Kopacz & Lawton, 2013, p. 19).

Existing research has indicated that YouTube serves as a health-related online forum for the discussion of health-related issues such as the human papillomavirus (HPV) vaccine issues (Briones, Nan, Madden, & Waks, 2012); for the social support for those with severe mental illness (Naslund, Grande, Aschbrenner, & Elwyn, 2014) or those with inflammatory bowel disease- or ostomy-related concerns (Frohlich &

Zmyslinski-Seelig, 2012); or for the information about the medical treatments or procedures such as implantable cardiac devices (Hayes et al., 2014), pediatric tonsillectomy (Strychowsky, Nayan, Farrokhyar, & MacLean, 2013), or organ donation (Tian, 2010). On the other hand, existing research has also indicated that informative health information and misleading health information regarding immunization (Keelan, Pavri-Garcia, Tomlinson, & Wilson, 2007), tanning bed use (Hossler & Conroy, 2008), or anorexia (Syed-Abdul et al., 2013) coexisted on YouTube and that misleading information could have a detrimental impact on users' health care.

In this regard, although YouTube seems useful as an online forum and social network that facilitates collective and supportive health communication among users with health-related concerns, there is a need for examining whether health-related YouTube use could actually help users empowered in coping with health-related concerns, given the nature of YouTube that informative health information and misleading health information coexist.

Therefore, the purpose of this study was to examine the degree to which health-related YouTube use could contribute to the sense of empowerment regarding health and health care for users with health-related concerns. With respect to this, based on the uses and gratifications theory (Katz, Blumler, & Gurevitch, 1973), this study examined what motivates users to utilize YouTube for health-related reasons, how users cognitively and behaviorally process health information on YouTube, and how their sense of empowerment regarding health and health care is affected by their health-related YouTube use.

Literature Review

To examine why users utilize YouTube for health-related reasons and how their health-related YouTube use is related to their sense of empowerment regarding health and health care, this study was based on the uses and gratifications theory because the theory provides the useful framework to examine what people can gratify through media use, rather than what media itself can give to people (Klapper, 1963).

Uses and Gratifications

The social and psychological theory, uses and gratifications suggests:

an audience-centered perspective that assumes (a) media behavior is purposive, goal-directed and motivated, (b) people select media content to satisfy their needs or desires, (c) social and psychological dispositions mediate that behavior, and (d) the “media compete with other forms of communication—or functional alternatives—such as interpersonal interaction for selection, attention, and use” (Rubin et al., 2003, p. 129).

As Kim and Rubin (1997) stated, people “approach the media with variable expectations and goals and seek to gratify their needs and wants” (p. 112), and, indeed, uses and gratifications has been applied to examine why and how people satisfy their specific wants through the utilization of a wide variety of media, including newspaper (Elliott & Rosenberg, 1987), television (Godlewski & Perse, 2010; Perse, 1990b; Rubin, 1981, 1983), the Internet (Kaye & Johnson, 2002; Papacharissi & Rubin, 2000), or social media (Hanson, Haridakis, Cunningham, Sharma, & Ponder, 2010; Whiting & Williams, 2013) such as YouTube (Hanson & Haridakis, 2008), Twitter (Chen, 2011), MySpace, and Facebook (Bonds-Raacke & Raacke, 2010).

Motive

Given that the first assumption of the theory is “media behavior is purposive, goal-directed and motivated” (Rubin et al., 2003, p. 129), uses and gratifications

theory primarily focuses on the motives for specific media use. Specifically, Rubin (1984) classified motives for media use into two dimensions: Instrumental motive and ritualized motive. Instrumental motive is indicative of goal-directed and active media use such as information-seeking from media content, whereas ritualized motive is indicative of less purposive and inactive media use such as using media as a medium for passing time (Kim & Rubin, 1997). Existing research has identified numerous and varied instrumental motives and ritualized motives for specific media use.

For example, Elliott and Rosenberg (1987) found that people read national newspapers to gratify the instrumental need of surveillance and contact (e.g., keeping track of news issues or discussing the issues with others) and read suburban and community newspapers to gratify the ritualistic need of passing time when the state newspaper was not available due to a strike. Rubin (1981) identified arousal and excitement, watching specific program content, information and learning (e.g., learning about the things that could happen to oneself and others), entertainment and enjoyment, and social interaction (e.g., talking about television programs with family or friends) motives that are indicative of instrumental motives for watching television; passing time or habit, companionship (e.g., feeling less lonely when there is no one to be with), relaxation, and escape or to forget (e.g., getting away from family or work) motives that are indicative of ritualized motives for watching television. Papacharissi and Rubin (2000) identified information-seeking and entertainment motives that are indicative of instrumental motives for the Internet use; passing time and convenience (e.g., emailing is easier than telling people) motives that are indicative of ritualized motives; interpersonal utility (e.g., expressing oneself freely or getting more points of view from others) motive that is indicative of both instrumental and ritualized motive for the Internet use (Papacharissi & Rubin, 2000).

Recently, existing research also identified the motives for social media use (e.g., Facebook, Twitter, or YouTube). For example, Whiting and Williams (2013) identified social interaction (e.g., meeting or chatting with people whom they do not regularly see such as old acquaintances), information-seeking, entertainment, expression of opinions (e.g., liking or commenting on postings), communicatory utility, information sharing, and surveillance and knowledge about others (e.g., spying on others without letting them know about it) motives that are indicative of instrumental motives for social media use; passing time, relaxation, and convenience utility (e.g., conveniently communicating with a lot of people) motives that are indicative of ritualized motives for social media use. Bonds-Raacke and Raacke (2010) found that people specifically use friend networking sites such as MySpace and Facebook to gratify the instrumental needs of information, friendship (e.g., keeping in touch with old friends), and connection to others. On the other hand, Chen (2011) found that people use Twitter to gratify the instrumental need of connection to others through Twitter functions (e.g., following).

Hanson and Haridakis (2008) specifically examined the motives for YouTube use. They surveyed college students about their own reasons for using YouTube and identified leisure entertainment, interpersonal expression, and information-seeking motives that are indicative of instrumental motives for YouTube use; companionship motive that is indicative of ritualized motive for YouTube use. These motives include the motives for the Internet use (e.g., interpersonal utility) as well as the motives for traditional media use (e.g., watching television for companionship). Given the nature of YouTube as the online video-sharing website, these motives reflect that YouTube can simultaneously gratify users' specific needs for using television and interactive Internet media.

In addition to the motives for specific media use, uses and gratifications theory has also been applied to examine the motives for specific media content use. For example, Godlewski and Perse (2010) identified social learning, exciting entertainment, and voyeurism (e.g., watching the attractive characters) motives that are indicative of instrumental motives for watching reality television programs; habit-pastime and relaxation-escape motives that are indicative of ritualized motives for watching reality television programs. On the other hand, Kaye and Johnson (2002) identified the instrumental motives for the Internet use for political information as guidance (e.g., decision-making on how to vote), information-seeking and surveillance, entertainment, and social utility motives (e.g., discussing political issues with others).

Additionally, Hanson et al. (2010) found that people used social media, including YouTube, to gratify the instrumental needs of political evaluation (e.g., judging which candidate is likely to win), convenient information-seeking, entertaining arousal, and self-expression as well as the ritualistic need of gainful companionship during the 2008 presidential campaign. In terms of health information, Antheunis et al. (2013) found that health professionals in obstetrics and gynecology in the Netherlands use Twitter, Facebook, LinkedIn, and YouTube to gratify the instrumental needs of increasing health-related knowledge, marketing (e.g., advertising their hospital to others), doctor-patient communication, efficiency (e.g., clearly updating others on their works), or communication with colleagues (e.g., sharing information about medical issues). They also found that patients use Twitter, Facebook, and Hyves, a Dutch social networking site, to gratify the instrumental needs of increasing health-related knowledge, doctor-patient communication, social support and advice, or self-care (e.g., staying updated on new medical issues).

Considering uses and gratifications literature indicating that people differ in their media use as they differ in their needs for media use, it is likely that there would be specific reasons for users with health-related concerns to utilize YouTube. With respect to this, Tanis (2008) identified discussion, inclusion (e.g., feeling a sense of belonging to the group), information-seeking, and supporting others motives that are indicative of instrumental motives for health-related online forum use; passing time and convenience motives that are indicative of ritualized motives for health-related online forum use. In this regard, given that YouTube has served as a health-related online forum for the discussion of health-related issues (Briones et al., 2012); for the social support for those with health-related concerns (e.g., Naslund et al., 2014); or for health information (e.g., Hayes et al., 2014), several motives such as discussing health-related topics with others, supporting those with health-related concerns, or health information-seeking could be presumable motives leading users with health-related concerns to utilize YouTube.

Nonetheless, little research has been conducted regarding why users, especially those who are non-health professionals, utilize YouTube for health-related reasons. In this regard, the following research question was examined to identify the motives for health-related YouTube use:

RQ1: What are the motives for health-related YouTube use by non-health professionals?

Involvement

Given that the second assumption of the theory is “people select media content to satisfy their needs or desires” (Rubin et al., 2003, p. 129), uses and gratifications

theory focuses on audience activity, which connotes “goal-directed intentional and selective media use” (Rubin & Perse, 1987b, p. 247). Especially as a central type of audience activity (Godlewski & Perse, 2010), involvement is defined as “the degree to which an audience member perceives a connection between him or herself and mass media content; and, second, the degree to which the individual interacts psychologically with a medium or its messages” (Levy & Windahl, 1985, p. 112).

Thinking about media content represents cognitive involvement (Rubin & Perse, 1987b). Cognitive involvement includes an elaboration, which refers to the way in which “how we interpret, attach meaning to, and respond to messages” (Kim & Rubin, 1997, p. 110). More specifically, Perse (1990b) stated that “Elaboration relates the incoming information to existing knowledge and images and attaches connotative and associative meanings” (p. 559). For example, the level of elaboration represents the degree to which people think about how much the media content relates to the things they used to know or what the media content means to them and their family (Perse, 1990b).

Talking about media content represents behavioral involvement (Rubin & Perse, 1987b). Behavioral involvement includes a post-viewing discussion of media content such as talking about the story (e.g., predicting next story) or characters with others (Rubin & Perse, 1987b). In the context of the Internet and social media, post-exposure online activity could represent behavioral involvement with media content. For example, reality television program audiences seek additional gratifications of watching the program through diverse post-exposure online activities such as posting messages about the program, voting for the program characters, or chatting with people who have the same interest in the program (Godlewski & Perse, 2010). Similar to this, YouTube users can also actively and interactively participate in diverse post-

exposure online activities such as discussing video content with others through comments, video responses, or email messages on either YouTube or other online platforms.

Existing research indicated that specific motives for media use relate to the involvement with media content. For example, Rubin and Perse (1987b) found that the social utility motive for watching television soap operas was positively correlated with behavioral involvement with the program (i.e., post-viewing discussion). This finding indicates that soap opera audiences are more likely to talk about the program with family or friends when they desire to spend more time with them (e.g., being or talking more with them; Rubin & Perse, 1987b). Kim and Rubin (1997) found that the information-voyeurism motive for watching television soap operas was the strongest positive motive related to the cognitive involvement with the program. This finding indicates that soap opera audiences are more likely to think about how much the program relates to the things they used to know when the program covers more things they have not done before and want to learn more about. Godlewski and Perse (2010) found that the social learning motive for watching reality television program was the strongest positive motive correlated with both cognitive involvement with the program and post-exposure online activity. These findings indicate that the more desire audience members feel to get a clearer picture of what could happen to them in real life, the more likely they are to be active in watching reality television program with additional efforts to interpret the meanings of the programs to them or to seek more information about the program online.

Although existing research, as noted above, has examined the relationship between motives for watching specific television programs and involvement with the program in general, the research looking at it specifically within YouTube is much

more limited. A few studies have been conducted about what specific motives for YouTube use relate to the involvement with video content such as news or consumer-generated advertisements on YouTube.

For example, Hanson and Haridakis (2008) found that the interpersonal expression motive for YouTube use was positively related to traditional news sharing, and the leisure entertainment motive and the interpersonal expression motive were positively related to comedy news sharing. These findings indicate that YouTube users are more likely to share news videos with others when they want to communicate more with those who have the same interest in the news topics or feel that sharing news videos with others helps them feel less bored when they are free. Hansen, Lee, and Lee (2014) found that YouTube users' need for cognition, which refers to "differences among individuals in their tendency to engage in and enjoy thinking" (Cacioppo & Petty, 1982, p. 116), was positively related to their intention to search for, rate, or comment on consumer-generated advertisements on YouTube. This finding indicates that the more users enjoy elaborating upon incoming information, the more likely they are to respond to or interact with video content on YouTube.

However, little research has been conducted about what specific motives for health-related YouTube use relate to the involvement with health information on YouTube. Based on existing research, it is expected that the more motivated users are to utilize YouTube for coping with health-related concerns, the more likely they are to be active in interpreting the utility or relevancy of health information on YouTube (i.e., cognitive involvement). In addition, they are more likely to seek more information about health information on YouTube or to discuss the information with others online. In this regard, the following research questions were examined:

RQ2: What specific motives for health-related YouTube use are related to cognitive involvement with health information on YouTube?

RQ3: What specific motives for health-related YouTube use are related to post-exposure online activity?

Satisfaction

As a result of media use, uses and gratifications theory focuses on the satisfaction with media use, which refers to “the gratification of needs and confirmation of expectations” (Kim & Rubin, 1997, p. 114). Existing research has indicated that instrumental motives for media use and active media use such as involvement relate to the satisfaction with media use (Godlewski & Perse, 2010; Kim & Rubin, 1997; Papacharissi & Rubin, 2000).

For example, Kim and Rubin (1997) found that the exciting entertainment motive was positively related to satisfaction with watching television soap operas. This finding indicates that soap opera audiences who seek exciting experiences are likely to feel satisfied with the program (e.g., willingness to watch more of the program) when the program is entertaining in response to their needs. Papacharissi and Rubin (2000) found that the information-seeking motive was positively related to satisfaction with using the Internet. This finding indicates that the Internet user searching for specific information is likely to feel satisfied with using the Internet when they feel searching for information online is easy and economical (Papacharissi & Rubin, 2000). Godlewski and Perse (2010) found that the social learning motive and the exciting entertainment motive were positively related to satisfaction with watching reality television programs. This finding indicates that an audience is likely to feel satisfied with watching reality television programs when they feel the program

helped them get a clearer picture of what could happen to them in real life or helped them feel enjoyable.

Also, they found that cognitive involvement with the program was positively correlated with satisfaction with watching reality television programs. This finding indicates that an audience is likely to feel satisfied with watching reality television programs when they feel the program seemed meaningful to them or their family as a result of carefully thinking about the program.

On the other hand, they found that post-exposure online activity was negatively related to satisfaction with watching reality television programs. This finding indicates that reality television program audiences seek additional gratifications of watching the program through diverse post-exposure online activities when they feel watching the program itself is not fully satisfying (Godlewski & Perse, 2010). Thus, post-exposure online activity is indicative of efforts to supplement the gratifications of media use.

Although existing research, as noted above, has indicated that specific motives for media use (e.g., television or the Internet), cognitive involvement, and post-exposure online activity relate to satisfaction with media use, little research has been conducted about the relationships among motives for health-related YouTube use, cognitive involvement with health information on YouTube, post-exposure online activity, and satisfaction with health-related YouTube use.

This study considered the sense of empowerment regarding health and health care as the satisfaction with health-related YouTube use because this sense of empowerment could represent a desired outcome of health-related YouTube use for users, especially those with a need for coping with health-related concerns (e.g., informed decision-making on health care).

The sense of empowerment regarding health and health care is defined as:

a cognitive state characterized by perceptions of control regarding one's own health and health care; perceptions of competence regarding one's ability to maintain good health and manage interactions with the health care system; and internalization of health ideals and goals at the individual and societal level (Menon, 2002, p. 34).

According to Menon (2002), sense of empowerment regarding health and health care is classified into the three dimensions: Perceived control, perceived competence, and goal internalization. People feel perceived control when they feel they have enough resources for health care they need such as access to quality health services and feel perceived competence when they feel they are capable of and knowledgeable about how to maintain a good health (Menon, 2002). In addition, people become enthusiastic about health care when they are inspired by the goals of good health care (i.e., goal internalization; Menon, 2002).

Existing research has indicated that people with health-related concerns (e.g., patients) can achieve a sense of empowerment through posting or reading health information online (van Uden-Kraan, Drossaert, Taal, Seydel, & van de Laar, 2008), or through discussing health-related concerns with others online (e.g., breast cancer; Sharf, 1997). Oh and Lee (2012) found that diabetes patients' participation in the diabetes online community was positively related to their perceived sense of empowerment (i.e., motivation to achieve disease-related goals, sense of confidence, and sense of control) through its effect on perceived computer-mediated social support from the community members (i.e., informational, emotional, and esteem support). These findings indicate that the more involved people with health-related concerns are with health-related online sources (e.g., online community), the more likely they are to feel empowered regarding health and health care.

Given that YouTube has served as a useful health-related online forum and social network in terms of facilitating collective and supportive health communication among users with health-related concerns (e.g., Frohlich & Zmyslinski-Seelig, 2012; Naslund et al., 2014), it is expected that health-related YouTube use would be related to positive outcomes for health care such as sense of empowerment regarding health and health care. Especially based on existing research, it is expected that users who have specific health-related reasons for YouTube use (i.e., instrumental motive) and who make additional efforts to complement their prior health-related knowledge with health information on YouTube (e.g., elaborating upon health information or discussing the information with others online) are likely to feel empowered in health and health care. In this regard, the following research question was examined:

RQ4: What factors (i.e., motives for health-related YouTube use, cognitive involvement with health information on YouTube, and post-exposure online activity) are related to the sense of empowerment regarding health and health care (i.e., perceived control, perceived competence, and goal internalization)?

Method

Sample and Procedures

The sample for this study consisted of undergraduate and graduate students at a mid-sized Midwestern university. College students are an appropriate demographic for this study as Pew Internet & American Life Project (2011) reported that 92% of the Internet users aged from 18 to 29 and 75% of the Internet users with a college-level education have used an online video-sharing website such as YouTube. Also, Pew Internet & American Life Project (2013) reported that 76% of the Internet users aged from 18 to 29 and 74% of the Internet users with a college-level education have searched for health information online.

After receiving approval for this study from the university IRB, convenience sampling was concentrated on undergraduates enrolled in speech communication classes in spring 2015. I recruited speech communication class instructors either in-person at an instructor meeting or via email. I debriefed about the purpose and procedures of this study to instructors and they granted permission for me to conduct the survey of the students in their classes. Because speech communication classes are divided into offline and online classes, I conducted either offline or online surveys of students depending on the type of class in which they were enrolled. In the case of students enrolled in offline classes, I visited classrooms either before or after class and asked students to complete the survey questionnaire associated with their experiences of health-related YouTube use (see Appendix A). In the case of students enrolled in online classes, I asked instructors to post the link to the online survey form on the class website and to invite and encourage students to complete the questionnaire. I informed students of the purpose of this study and that participation in the survey was

voluntary and confidential. The survey took approximately 15 minutes to complete and there was no payment for taking part in the survey.

Of 368 questionnaires, 263 from the respondents who have utilized YouTube for health-related reasons provided the data for analysis. Respondents were 48.3% ($n = 127$) female and 51.7% ($n = 136$) male. Respondents' ages ranged from 17 to 50 with an average age of 21 ($M = 21.19$). The education level of respondents was 46.4% ($n = 122$) first year, 17.5% ($n = 46$) sophomore, 17.1% ($n = 45$) junior, 13.3% ($n = 35$) senior, and 5.7% ($n = 15$) graduate students. Respondents were 83.7% ($n = 220$) domestic students and 16.3% ($n = 43$) international students (see Table 1).

Table 1 Demographic Profile of the Sample

| Demographics | <i>N</i> | % | | <i>n</i> | % or <i>M</i> (age) |
|------------------|----------|------|-----------------|----------|---------------------|
| Sample | 263 | 100 | Age | 263 | 21 |
| Gender | | | Education | | |
| Female | 127 | 48.3 | First year | 122 | 46.4 |
| Male | 136 | 51.7 | Sophomore | 46 | 17.5 |
| Internationality | | | Junior | 45 | 17.1 |
| Domestic | 220 | 83.7 | Senior | 35 | 13.3 |
| International | 43 | 16.3 | Graduate school | 15 | 5.7 |

Measurements

Throughout the survey, following variables were measured to answer research questions. Motives for health-related YouTube use were measured to answer RQ1. Cognitive involvement with health information on YouTube was measured to answer RQ2. Post-exposure online activity was measured to answer RQ3. Finally, the three dimensions of sense of empowerment regarding health and health care were measured to answer RQ4.

Motives for health-related YouTube use. Motives for health-related YouTube use were measured using items from previous research that identified the motives for watching television (Rubin, 1981, 1983); the motives for interpersonal communication (Rubin, Perse, & Barbato, 1988); and the motives for the Internet use (Papacharissi & Rubin, 2000), given the nature of YouTube as the online video-sharing website that functions as both television (e.g., broadcasting video content) and interactive Internet media (e.g., enabling users to share or discuss the content with others online). These items were previously validated in measuring the motives for YouTube use (Hanson & Haridakis, 2008) and the motives for health-related online forum use (Tanis, 2008). On 5-point scales (1 = *strongly disagree* and 5 = *strongly agree*), respondents marked their agreement on 50 items associated with their reasons for health-related YouTube use such as “To get information for free” (see items Q2.1-50 in Appendix A). Specifically, respondents were asked why they have utilized YouTube regarding the concerns for “specific disease or medical problem,” “certain medical treatments or procedures,” “how to lose weight or how to control your weight,” “health insurance, including private insurance, Medicare or Medicaid,” “food safety or recalls,” “drug safety or recalls,” “a drug you saw advertised,” “medical test results,” “caring for an aging relative or friend,” “pregnancy and childbirth,” “how to reduce your health care costs,” or any other health-related issue on YouTube. These topics were based on the list of health information frequently searched online (Pew Internet & American Life Project, 2013).

Cognitive involvement. Cognitive involvement with health information on YouTube was measured using items adapted from four-item version of the cognitive elaboration scale (Perse, 1990a), which measure the degree to which people elaborate upon media content such as thinking about how much the media content relates to the

things they used to know or what the media content means to them and their family. Previous research has reported Cronbach's alpha reliability for original scale that ranged from .73 to .83 (Godlewski & Perse, 2010; Perse, 1998). On 5-point scales (1 = *strongly disagree* and 5 = *strongly agree*), respondents reported the degree to which they elaborated upon health information on YouTube by marking their agreement on 4 items such as "When I watched, I thought about what the health-related content meant to me and my family" (see items Q4.1-4 in Appendix A). Cronbach's alpha reliability for the scale modified for this study was .84 ($M = 3.36$, $SD = 0.81$).

Post-exposure online activity. Post-exposure online activity was measured using items adapted from previous research (Godlewski & Perse, 2010), which measure the degree to which people participate in diverse online activities for additional gratifications of media use such as seeking more information about media content or chatting with others who have the same interest in the content online. Godlewski and Perse (2010) reported Cronbach's alpha reliability of .90 for original scale. On 5-point scales (1 = *strongly disagree* and 5 = *strongly agree*), respondents reported the degree to which they participated in online activities regarding health information on YouTube by marking their agreement on 8 items such as "I went online to chat with people who have the same interest in the health-related content I watched on YouTube" (see items Q5.1-8 in Appendix A). Cronbach's alpha reliability for the scale modified for this study was .84 ($M = 2.62$, $SD = 0.71$).

Sense of empowerment. Sense of empowerment regarding health and health care was measured using items from the psychological health empowerment scale (Menon, 2002), which measure the degree to which people feel empowered in coping with health-related concerns (i.e., perceived control, perceived competence, and goal internalization). This scale was previously validated in measuring sense of

empowerment for diabetes patients who participated in the diabetes online community (Oh & Lee, 2012). To address perceived control, respondents reported on 5-point scales (1 = *strongly disagree* and 5 = *strongly agree*) the degree to which they feel empowered in managing the resources for health care by marking their agreement on 12 items such as “I know I have access to health care when I need it” (see items Q6.1-12 in Appendix A). Cronbach’s alpha reliability for perceived control in this study was .90 ($M = 3.81, SD = 0.60$). To address perceived competence, respondents reported on 5-point scales (1 = *strongly disagree* and 5 = *strongly agree*) the degree to which they feel they are capable of or knowledgeable about health care by marking their agreement on 14 items such as “I know how to seek specialized medical assistance when needed” (see items Q6.13-26 in Appendix A). Cronbach’s alpha reliability for perceived competence in this study was .92 ($M = 3.91, SD = 0.59$). To address goal internalization, respondents reported on 5-point scales (1 = *strongly disagree* and 5 = *strongly agree*) the degree to which they feel enthusiastic about or inspired by the goals of good health care by marking their agreement on 8 items such as “I am enthusiastic about my own efforts to maintain good health” (see items Q6.27-34 in Appendix A). Cronbach’s alpha reliability for goal internalization in this study was .82 ($M = 3.99, SD = 0.57$).

Control variables. Uses and gratifications literature has indicated that people can differ in media use and effects as they differ in their background characteristics such as demographics (e.g., age, sex, or education level; Godlewski & Perse, 2010; Hanson & Haridakis, 2008; Hanson et al., 2010). For example, Godlewski and Perse (2010) found that a young audience is more likely to participate in post-exposure online activities regarding reality television program than is an older audience. Hanson and Haridakis (2008) found that male users are more likely to watch and

share comedy news videos on YouTube than are female users. In addition, Hanson et al. (2010) found that political cynicism was positively associated with age and being male and negatively associated with education level among those who utilized social media (e.g., YouTube) for information about the 2008 presidential campaign. In this regard, existing research has suggested and followed the conceptual order of examining variables in ways that control demographic variables first and then examine the relevant contribution of motives for media use and audience activity (e.g., involvement) for explaining media effects such as satisfaction with media use (Godlewski & Perse, 2010; Kim & Rubin, 1997). Thus, based on existing research, this study controlled possible effects of YouTube users' age, sex, and education level on their sense of empowerment regarding health and health care.

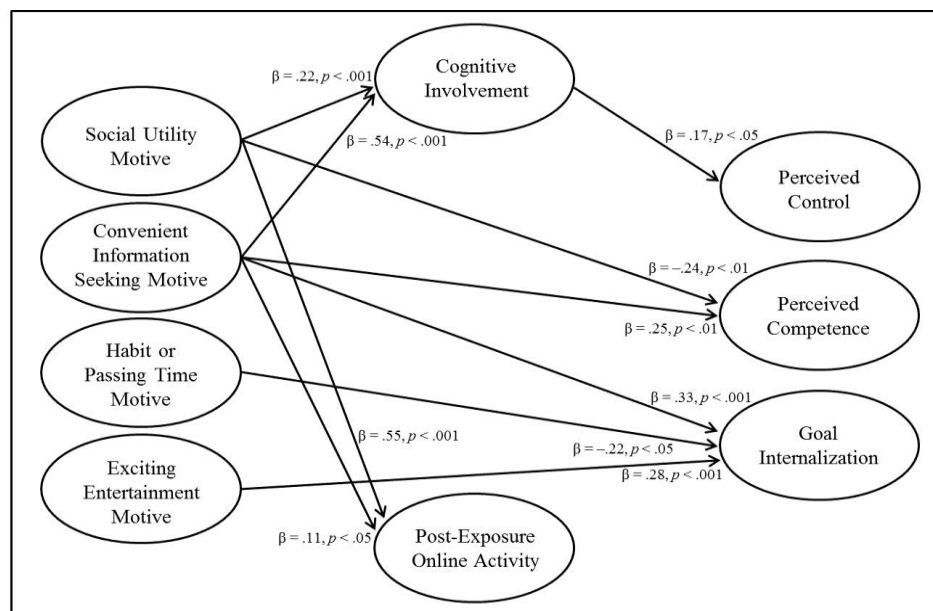
Data Analysis

A factor analysis was conducted for RQ1 to identify the motives for health-related YouTube use. Furthermore, a Pearson product-moment correlation and a hierarchical multiple regression analysis were conducted for RQ2, RQ3, and RQ4 to examine the relationships among motives for health-related YouTube use, cognitive involvement with health information on YouTube, post-exposure online activity, and the three dimensions of sense of empowerment regarding health and health care.

Results

The data analyses revealed that there are specific motives for health-related YouTube use and significant relationships among motives for health-related YouTube use, cognitive involvement with health information on YouTube, post-exposure online activity, and the three dimensions of sense of empowerment regarding health and health care (see Figure 1).

Figure 1 Relationships among the Variables



Motives for Health-Related YouTube Use

A factor analysis was conducted for RQ1 to identify users' motives for health-related YouTube use. Specifically, principal components analysis with varimax rotation was conducted to extract and interpret the motives. The criteria for a factor to be retained were an eigenvalue of at least 1.00 and at least three items meeting primary loadings of at least .50 with no secondary loadings above .40 (Kim & Rubin, 1997). The analysis identified four motives that explained 56.27% of the total variance. The four motives were: Social utility motive, convenient information-seeking motive, habit-passing time motive, and exciting entertainment motive (see Table 2).

Table 2 Motives for Health-Related YouTube Use

| I utilized YouTube for health-related reasons ... | SU | CIS | HPT | EE |
|--|-----|------|------|------|
| To let others know I care about their feelings | .80 | .08 | .10 | -.01 |
| To tell others what to do | .80 | .13 | -.03 | .07 |
| To participate in discussions | .77 | .13 | .13 | -.04 |
| Because I need someone to talk to or be with | .75 | -.07 | .13 | -.01 |
| To thank others | .75 | .13 | .10 | .08 |
| Because I just need to talk about my problems sometimes | .75 | .02 | .07 | .11 |
| To help others | .74 | .21 | .05 | .07 |
| To show others encouragement | .74 | .19 | .06 | .18 |
| Because it is easier than telling something offline | .71 | .20 | .02 | .06 |
| Because I enjoy answering other people's questions | .70 | .10 | .26 | .04 |
| Because I'm concerned about others | .69 | .27 | .01 | -.03 |
| To give my input | .69 | .12 | .17 | .12 |
| To belong a group with the same interests as mine | .65 | .19 | .17 | .16 |
| To meet new people | .63 | -.07 | .08 | .07 |
| Because I want someone to do something for me | .61 | .01 | .32 | .07 |
| Because I can express myself freely | .61 | .18 | .20 | .15 |
| Because it makes me feel less tense | .50 | .22 | .21 | .19 |
| To get information for free | .08 | .76 | .11 | .13 |
| Because it provides an interesting way to do research | .07 | .75 | .14 | .02 |
| To search for information | .05 | .74 | .08 | .01 |
| Because it's easier to get information | .15 | .73 | -.01 | .12 |
| Because I can view material in videos online, and I don't have to pay for them | .07 | .72 | .26 | .11 |
| So I can learn how to do things which I haven't done before | .09 | .69 | .16 | .04 |
| To see what's out there | .20 | .57 | .32 | .23 |
| When I have nothing better to do | .16 | .13 | .84 | .06 |
| Because it gives me something to occupy my time | .16 | .20 | .81 | .21 |
| Because it passes the time away particularly when I'm bored | .06 | .08 | .74 | .23 |

| | | | | |
|---|-------|-------|------|------|
| Because it's just a habit, just something to do | .21 | .21 | .73 | .12 |
| Because it amuses me | .04 | .31 | .61 | .35 |
| Because it's something to do when friends come over | .25 | -.04 | .58 | .23 |
| Because I like to use it | .12 | .38 | .50 | .38 |
| Because it's exciting | .18 | .04 | .22 | .80 |
| Because it's fun to play around and check things | .09 | .08 | .17 | .79 |
| Because it's enjoyable | -.04 | .12 | .34 | .67 |
| Eigenvalue | 17.12 | 5.69 | 3.65 | 1.67 |
| % variance explained | 34.24 | 11.38 | 7.31 | 3.34 |
| <i>M</i> | 2.26 | 3.87 | 3.19 | 3.37 |
| <i>SD</i> | 0.79 | 0.74 | 0.90 | 0.93 |
| Cronbach's alpha | .95 | .87 | .88 | .82 |

Note. SU = Social Utility. CIS = Convenient Information-Seeking. HPT = Habit-Passing Time. EE = Exciting Entertainment.

The first motive for health-related YouTube use, social utility accounted for 34.24% of the total variance and consisted of 17 items related to utilizing YouTube to communicate with people who have the same interest in the health-related topics such as discussing health information on YouTube or exchanging social support for coping with health-related concerns ($M = 2.26$, $SD = 0.79$, $\alpha = .95$). The second motive, convenient information-seeking accounted for 11.38% of the total variance and consisted of 7 items related to utilizing YouTube because it is easy and free to search for specific health information ($M = 3.87$, $SD = 0.74$, $\alpha = .87$). The third motive, habit-passing time accounted for 7.31% of the total variance and consisted of 7 items related to looking for health-related content on YouTube to pass time or as a habit ($M = 3.19$, $SD = 0.90$, $\alpha = .88$). The fourth motive, exciting entertainment accounted for 3.34% of the total variance and consisted of 3 items related to looking for health-related content on YouTube because it is exciting, fun, and enjoyable ($M = 3.37$, $SD = 0.93$, $\alpha = .82$).

Motive, Cognitive Involvement, Online Activity, and Sense of Empowerment

A Pearson product-moment correlation and a hierarchical multiple regression analysis were conducted for RQ2, RQ3, and RQ4 to examine the relationships among motives for health-related YouTube use, cognitive involvement with health information on YouTube, post-exposure online activity, and sense of empowerment regarding health and health care.

RQ2 asked what specific motives for health-related YouTube use are related to cognitive involvement with health information on YouTube. Two-tailed Pearson product-moment correlations revealed the bivariate relationships between motives for health-related YouTube use and cognitive involvement (see Table 3).

Table 3 Pearson Product-Moment Correlations among the Variables

| | AGE | GEN | EDU | SU | CIS | HPT | EE | CI | PEOA | PCON | PCOM |
|------|--------|-------|-------|--------|--------|--------|--------|--------|------|--------|--------|
| GEN | .06 | | | | | | | | | | |
| EDU | .57*** | .09 | | | | | | | | | |
| SU | .11 | -.12 | -.00 | | | | | | | | |
| CIS | .13* | .00 | .08 | .33*** | | | | | | | |
| HPT | -.13* | -.15* | -.15* | .41*** | .45*** | | | | | | |
| EE | -.05 | -.04 | -.13* | .28*** | .29*** | .56*** | | | | | |
| CI | .12* | .01 | .10 | .36*** | .57*** | .23*** | .19** | | | | |
| PEOA | .13* | -.09 | .07 | .65*** | .37*** | .37*** | .31*** | .49*** | | | |
| PCON | -.13* | .04 | -.07 | .00 | .19** | .09 | .08 | .20** | .03 | | |
| PCOM | .00 | .07 | -.00 | -.14* | .17** | .00 | .03 | .09 | -.04 | .70*** | |
| GI | -.01 | .08 | .01 | .06 | .30*** | .09 | .27*** | .20** | .12* | .45*** | .59*** |

Note. * $p < .05$ (two-tailed). ** $p < .01$ (two-tailed). *** $p < .001$ (two-tailed). GEN = Gender. EDU = Education. SU = Social Utility. CIS = Convenient Information-Seeking. HPT = Habit-Passing Time. EE = Exciting Entertainment. CI = Cognitive Involvement. PEOA = Post-Exposure Online Activity. PCON = Perceived Control. PCOM = Perceived Competence. GI = Goal Internalization.

Specifically, cognitive involvement was positively correlated with the social utility motive ($r = .36, p < .001$), convenient information-seeking motive ($r = .57, p <$

.001), habit-passing time motive ($r = .23, p < .001$), and exciting entertainment motive ($r = .19, p < .01$).

Furthermore, a hierarchical multiple regression analysis revealed the relevant contribution of motives for health-related YouTube use for explaining cognitive involvement (see Table 4).

Table 4 Regression Model Explaining Cognitive Involvement

| Variable | Cognitive involvement | |
|---------------------------------------|-----------------------|--------|
| | Step 1 | Step 2 |
| Age | .15 | .03 |
| Gender | .00 | .02 |
| Education | .03 | .04 |
| Social utility motive | | .22*** |
| Convenient information-seeking motive | | .54*** |
| Habit-passing time motive | | -.12 |
| Exciting entertainment motive | | .01 |
| R^2 | .03 | .38 |
| ΔR^2 | | .35*** |

Note. *** $p < .001$.

To explain cognitive involvement, demographic variables (i.e., age, sex, and education level) were entered in the first block as control variables. Demographic variables were not significant contributors to cognitive involvement: $R = .17, R^2 = .03, F(3, 229) = 2.35, p = .073$. Adding motives for health-related YouTube use in the second block accounted for an additional 35.4% of the variance in cognitive involvement: $R = .62, R^2 = .38, F(7, 225) = 20.03, p < .001$. However, only social utility motive ($\beta = .22, p < .001$) and convenient information-seeking motive ($\beta = .54, p < .001$) accounted for any unique variance in cognitive involvement after controlling the demographic variables.

RQ3 asked what specific motives for health-related YouTube use are related to post-exposure online activity. Two-tailed Pearson product-moment correlations

revealed the bivariate relationships between motives for health-related YouTube use and post-exposure online activity (see Table 3).

Specifically, post-exposure online activity was positively correlated with the social utility motive ($r = .65, p < .001$), convenient information-seeking motive ($r = .37, p < .001$), habit-passing time motive ($r = .37, p < .001$), and exciting entertainment motive ($r = .31, p < .001$).

Furthermore, a hierarchical multiple regression analysis revealed the relevant contribution of motives for health-related YouTube use for explaining post-exposure online activity (see Table 5).

Table 5 Regression Model Explaining Post-Exposure Online Activity

| Variable | Post-exposure online activity | |
|---------------------------------------|-------------------------------|--------|
| | Step 1 | Step 2 |
| Age | .18* | .05 |
| Gender | -.12 | -.03 |
| Education | -.00 | .06 |
| Social utility motive | | .55*** |
| Convenient information-seeking motive | | .11* |
| Habit-passing time motive | | .03 |
| Exciting entertainment motive | | .08 |
| R^2 | .04 | .46 |
| ΔR^2 | | .42*** |

Note. * $p < .05$. *** $p < .001$.

To explain post-exposure online activity, demographic variables were entered in the first block as control variables and accounted for 4.4% of the variance in post-exposure online activity: $R = .20, R^2 = .04, F(3, 225) = 3.42, p < .05$. However, only age ($\beta = .18, p < .05$) accounted for any unique variance in post-exposure online activity. Adding motives for health-related YouTube use in the second block accounted for an additional 42% of the variance in post-exposure online activity: $R = .68, R^2 = .46, F(7, 221) = 27.24, p < .001$. However, only social utility motive ($\beta = .55, p < .001$) and convenient information-seeking motive ($\beta = .11, p < .05$) accounted

for any unique variance in post-exposure online activity after controlling for demographic variables. At this stage, age ($\beta = .05, p = .354$) was no longer a significant contributor to post-exposure online activity.

RQ4 asked what factors (i.e., motives for health-related YouTube use, cognitive involvement with health information on YouTube, and post-exposure online activity) are related to the sense of empowerment regarding health and health care (i.e., perceived control, perceived competence, and goal internalization).

Two-tailed Pearson product-moment correlations revealed the bivariate relationships among motives for health-related YouTube use, cognitive involvement, post-exposure online activity, and the three dimensions of sense of empowerment (see Table 3).

Specifically, perceived control was positively correlated with the convenient information-seeking motive ($r = .19, p < .01$) and cognitive involvement ($r = .20, p < .01$). Perceived competence was negatively correlated with the social utility motive ($r = -.14, p < .05$) and positively correlated with the convenient information-seeking motive ($r = .17, p < .01$). Goal internalization was positively correlated with the convenient information-seeking motive ($r = .30, p < .001$), exciting entertainment motive ($r = .27, p < .001$), cognitive involvement ($r = .20, p < .01$), and post-exposure online activity ($r = .12, p < .05$).

Furthermore, hierarchical multiple regression analyses revealed the relevant contribution of motives for health-related YouTube use, cognitive involvement, and post-exposure online activity for explaining sense of empowerment. First, a hierarchical multiple regression analysis revealed the relevant contribution of motives for health-related YouTube use, cognitive involvement, and post-exposure online activity for explaining perceived control (see Table 6).

Table 6 Regression Model Explaining Perceived Control

| Variable | Perceived control | | |
|---------------------------------------|-------------------|--------|--------|
| | Step 1 | Step 2 | Step 3 |
| Age | -.11 | -.13 | -.14 |
| Gender | .07 | .07 | .07 |
| Education | .02 | .01 | .00 |
| Social utility motive | | -.05 | -.08 |
| Convenient information-seeking motive | | .25** | .15 |
| Habit-passing time motive | | -.00 | .01 |
| Exciting entertainment motive | | .00 | .00 |
| Cognitive involvement | | | .17* |
| Post-exposure online activity | | | -.00 |
| R^2 | .01 | .07 | .09 |
| ΔR^2 | | .05* | .01 |

Note. * $p < .05$. ** $p < .01$.

To explain perceived control, demographic variables were entered in the first block as control variables. Demographic variables were not significant contributors to perceived control: $R = .12$, $R^2 = .01$, $F(3, 221) = 1.12$, $p = .341$. Adding motives for health-related YouTube use in the second block accounted for an additional 5.6% of the variance in perceived control: $R = .26$, $R^2 = .07$, $F(7, 217) = 2.35$, $p < .05$. However, only convenient information-seeking motive ($\beta = .25$, $p < .01$) accounted for any unique variance in perceived control after controlling the demographic variables. Adding cognitive involvement and post-exposure online activity in the third block accounted for an additional 1.9% of the variance in perceived control: $R = .30$, $R^2 = .09$, $F(9, 215) = 2.36$, $p < .05$. However, only cognitive involvement ($\beta = .17$, $p < .05$) accounted for any unique variance in perceived control after controlling the demographic variables and motives for health-related YouTube use. At this stage, convenient information-seeking motive ($\beta = .15$, $p = .074$) was no longer a significant contributor to perceived control. Conclusively, only cognitive involvement was a significant contributor in the final model.

Also, a hierarchical multiple regression analysis revealed the relevant contribution of motives for health-related YouTube use, cognitive involvement, and post-exposure online activity for explaining perceived competence (see Table 7).

Table 7 Regression Model Explaining Perceived Competence

| Variable | Perceived competence | | |
|---------------------------------------|----------------------|--------|--------|
| | Step 1 | Step 2 | Step 3 |
| Age | .02 | .03 | .03 |
| Gender | .08 | .05 | .05 |
| Education | .01 | -.01 | -.01 |
| Social utility motive | | -.24** | -.24** |
| Convenient information-seeking motive | | .27** | .25** |
| Habit-passing time motive | | -.02 | -.02 |
| Exciting entertainment motive | | .01 | .01 |
| Cognitive involvement | | | .04 |
| Post-exposure online activity | | | -.02 |
| R^2 | .00 | .09 | .09 |
| ΔR^2 | | .08** | .00 |

Note. ** $p < .01$.

To explain perceived competence, demographic variables were entered in the first block as control variables. Demographic variables were not significant contributors to perceived control: $R = .09$, $R^2 = .008$, $F(3, 217) = 0.58$, $p = .626$. Adding motives for health-related YouTube use in the second block accounted for an additional 8.8% of the variance in perceived competence: $R = .31$, $R^2 = .09$, $F(7, 213) = 3.22$, $p < .01$. However, only social utility motive ($\beta = -.24$, $p < .01$) and convenient information-seeking motive ($\beta = .27$, $p < .01$) accounted for any unique variance in perceived competence after controlling the demographic variables. Adding cognitive involvement and post-exposure online activity in the third block accounted for an additional 0.1% of the variance in perceived competence: $R = .31$, $R^2 = .09$, $F(9, 211) = 2.52$, $p < .01$. However, neither cognitive involvement ($\beta = .04$, $p = .573$) nor post-exposure online activity ($\beta = -.02$, $p = .758$) was related to perceived competence.

Conclusively, only social utility motive and convenient information-seeking motive were significant contributors in the final model.

Finally, a hierarchical multiple regression analysis revealed the relevant contribution of motives for health-related YouTube use, cognitive involvement, and post-exposure online activity for explaining goal internalization (see Table 8).

Table 8 Regression Model Explaining Goal Internalization

| Variable | Goal internalization | | |
|---------------------------------------|----------------------|--------|--------|
| | Step 1 | Step 2 | Step 3 |
| Age | -.02 | -.09 | -.09 |
| Gender | .06 | .05 | .05 |
| Education | .03 | .06 | .06 |
| Social utility motive | | -.02 | -.04 |
| Convenient information-seeking motive | | .34*** | .33*** |
| Habit-passing time motive | | -.22** | -.22* |
| Exciting entertainment motive | | .28*** | .28*** |
| Cognitive involvement | | | .02 |
| Post-exposure online activity | | | .01 |
| R^2 | .00 | .16 | .16 |
| ΔR^2 | | .15*** | .00 |

Note. * $p < .05$. ** $p < .01$. *** $p < .001$.

To explain goal internalization, demographic variables were entered in the first block as control variables. Demographic variables were not significant contributors to goal internalization: $R = .07$, $R^2 = .005$, $F(3, 222) = 0.40$, $p = .748$. Adding motives for health-related YouTube use in the second block accounted for an additional 15.5% of the variance in goal internalization: $R = .40$, $R^2 = .16$, $F(7, 218) = 5.93$, $p < .001$. However, only convenient information-seeking motive ($\beta = .34$, $p < .001$), habit-passing time motive ($\beta = -.22$, $p < .01$), and exciting entertainment motive ($\beta = .28$, $p < .001$) accounted for any unique variance in goal internalization after controlling the demographic variables. Adding cognitive involvement and post-exposure online activity in the third block accounted for an additional 0.1% of the variance in goal internalization: $R = .40$, $R^2 = .16$, $F(9, 216) = 4.59$, $p < .001$.

However, neither cognitive involvement ($\beta = .02, p = .278$) nor post-exposure online activity ($\beta = .01, p = .190$) was related to goal internalization. Conclusively, only convenient information-seeking motive, habit-passing time motive, and exciting entertainment motive were significant contributors in the final model.

Discussion

The goals of this study were to identify motives for health-related YouTube use and to examine the relationships among motives for health-related YouTube use, cognitive involvement with health information on YouTube, post-exposure online activity, and sense of empowerment regarding health and health care.

Findings

RQ1 asked what motivates users to utilize YouTube for health-related reasons. A factor analysis identified four motives for health-related YouTube use: Social utility, convenient information-seeking, habit-passing time, and exciting entertainment. The users motivated by social utility utilize YouTube to communicate with people who have the same interest in the health-related topics. Specifically, they utilize YouTube to freely express opinions (e.g., answering questions) about health information on YouTube or to discuss the information with others through comments or video responses. In addition, they utilize YouTube to exchange social support for coping with health-related concerns. Specifically, they utilize YouTube to feel less anxious about health-related concerns by talking to or being with others on YouTube. Also, they utilize YouTube to provide health-related guidance or to express caring and encouragement for those with health-related concerns. The users motivated by convenient information-seeking utilize YouTube because it is easy and free to search for specific health information or to do research on the health-related topics. The users motivated by habit-passing time utilize YouTube as a habit of occupying their time with looking around health-related content on YouTube when they are free or with their friends. The users motivated by exciting entertainment utilize YouTube because looking around health-related content on YouTube itself is an exciting and enjoyable experience.

The findings for RQ1 are consistent with the assumption of uses and gratifications that motives for media use are classified into two dimensions: Instrumental motive and ritualized motive (Kim & Rubin, 1997; Rubin, 1984). With respect to this assumption, the social utility, convenient information-seeking, and exciting entertainment represent instrumental or goal-directed motives for health-related YouTube use, whereas habit-passing time represents a ritualized or less purposive motive for health-related YouTube use.

RQ2 asked what specific motives for health-related YouTube use are related to the cognitive involvement with health information on YouTube. A hierarchical multiple regression analysis revealed that social utility and convenient information-seeking were positively related to cognitive involvement. These findings indicate that the more YouTube users have a need for searching for specific health information or communicating the information with others for coping with health-related concerns, the more likely they are to elaborate upon health information on YouTube (e.g., videos or comments) by carefully thinking about how much the information seems useful or relevant to them, their family, or other people they know (e.g., friends) in terms of health and health care.

RQ3 asked what specific motives for health-related YouTube use are related to the post-exposure online activity. A hierarchical multiple regression analysis revealed that social utility and convenient information-seeking were positively related to post-exposure online activity. These findings indicate that the users motivated by social utility or convenient information-seeking have a tendency not only to elaborate upon health information on YouTube for coping with health-related concerns, but also to participate in diverse online activities for supplementing the coping process. For example, regarding health information on YouTube, they are active in seeking more

information from either YouTube or other online sources, chatting or discussing with others (e.g., friends) on other online platforms, posting or sharing the health-related content on YouTube on other online platforms, or going online to participate in a poll about the health-related content on YouTube.

However, regression analyses revealed that the habit-passing time and exciting entertainment motives were not related to cognitive involvement or post-exposure online activity. These findings indicate that YouTube users who utilize YouTube as a habit of passing time or for entertainment are not active in elaborating upon health information on YouTube or participating in additional online activities regarding health information on YouTube as they have no specific needs for health information or social support for coping with health-related concerns.

The findings for RQ2 and RQ3 lend overall support to the assumption of uses and gratifications that involvement such as elaboration and post-exposure online activity is indicative of instrumental motives (Godlewski & Perse, 2010; Perse, 1990a; Rubin & Perse, 1987a). For example, as previously stated, the more motivated YouTube users are by instrumental motives (e.g., social utility or convenient information-seeking), the more likely they are to be cognitively and behaviorally involved with health information on YouTube to gratify their health-related goals (e.g., coping well with health-related concerns).

RQ4 asked what factors (i.e., motives for health-related YouTube use, cognitive involvement with health information on YouTube, and post-exposure online activity) are related to the sense of empowerment regarding health and health care (i.e., perceived control, perceived competence, and goal internalization).

Regarding perceived control, a hierarchical multiple regression analysis revealed that cognitive involvement was positively related to perceived control. Given

that the social utility and convenient information-seeking motives were positively related to cognitive involvement, this finding indicates that these motives are indirectly related to perceived control through cognitive involvement. Specifically, these findings could be interpreted as users who utilize YouTube for searching for specific health information or communicating the information with others for coping with health-related concerns are likely to feel they have enough resources for health care they need when they think health information on YouTube supplements their prior knowledge about health care (i.e., elaboration) and helps them make more informed decision-making on coping with health-related concerns.

Regarding perceived competence, a hierarchical multiple regression analysis revealed that cognitive involvement and post-exposure activity were not related to perceived competence. Instead, the convenient information-seeking motive was positively related to perceived competence and the social utility motive was negatively related to perceived competence. These findings indicate that users who feel easy and free to search for specific health information on YouTube are likely to feel knowledgeable about coping with health-related concerns without additional efforts to elaborate upon health information on YouTube or to participate in additional online activities, given that the vast amount of health information available on YouTube may reduce the needs for these efforts.

On the other hand, the negative relationship between the social utility motive and perceived competence also indicates the negative aspects of the vast amount of health information on YouTube. As previously stated, users who utilize YouTube for communicating health information with others are likely to actively discuss the information with others to be more capable of coping with their health-related concerns. However, discussing the vast amount of health information online (e.g.,

YouTube) may make users feel difficulties in clearly discerning which information is appropriate and trustworthy (Berland et al., 2001; Greenberg, D'Andrea, & Lorence, 2004; Syed-Abdul et al., 2013). Specifically, they are likely to feel confused about overflowing health information on YouTube that differs in when, where, or how to cope with health-related concerns. As a result, users may feel difficulties in elaborating upon or verifying every piece of health information on YouTube and thereby feel less capable of coping with health-related concerns.

Regarding goal internalization, a hierarchical multiple regression analysis revealed that cognitive involvement and post-exposure activity were not related to goal internalization. Instead, the habit-passing time motive was negatively related to goal internalization, whereas the convenient information-seeking motive and exciting entertainment motive were positively related to goal internalization.

Not surprisingly, users who utilize YouTube as a habit of occupying their time with looking around health-related content on YouTube are not likely to feel enthusiastic about or inspired by the goals of good health care as they have no specific needs for health information or social support for coping with health-related concerns. Conversely, users who feel it is easy (i.e., convenient information-seeking) or enjoyable (i.e., exciting entertainment) to search for health information on YouTube are likely to feel motivated for good health care. Specifically, as Sparks and Villagran (2010) and Li, Townsend, and Badley (2012) stated that visual aids for complex health information (e.g., picture system or animation) are helpful in better understanding of the information, these findings indicate that video features (e.g., picture, subtitle, or music) of health information on YouTube could help users more interested in the goals of good health care by enabling them to easily and enjoyably understand health information.

Regression analyses revealed that post-exposure online activity was not related to the three dimensions of sense of empowerment regarding health and health care. Given that the social utility and convenient information-seeking motives were positively related to post-exposure online activity, these findings indicate that post-exposure online activity did not mediate the relationship between these motives and the three dimensions of sense of empowerment. These findings could be interpreted based on the nature of YouTube that informative health information and misleading health information coexist (Hossler & Conroy, 2008; Keelan et al., 2007; Syed-Abdul et al., 2013).

Specifically, YouTube users motivated by social utility or convenient information-seeking are not likely to feel a sense of empowerment once they figure out health information on YouTube is misleading or detrimental to their health and health care through additional online activities (e.g., discussing the credibility or appropriateness of the information with others on either YouTube or other online platforms or seeking more information from other online sources).

The findings for RQ4 are consistent with uses and gratifications literature indicating that instrumental motives for media use and active media use such as involvement relate to the satisfaction with media use (Godlewski & Perse, 2010; Kim & Rubin, 1997; Papacharissi & Rubin, 2000).

For example, as previously stated, instrumental motives for health-related YouTube use such as social utility and convenient information-seeking motives were positively related to cognitive involvement and cognitive involvement was positively related to perceived control. Also, instrumental motives for health-related YouTube use (e.g., convenient information-seeking) were positively related to perceived competence and goal internalization.

Implications

The findings from this study provide empirical evidences that YouTube can serve as a health-related online forum and social network that not only facilitates collective and supportive health communication among users but also helps them feel empowered in health care. Thus, the findings from this study imply that health professionals and organizations could use YouTube for educating and communicating with users with health-related concerns and thereby promoting their sense of empowerment regarding health and health care.

This implication seems especially applicable to users with limited health literacy, which refers to “having a basic understanding of a range of health topics and being able to differentiate different types and what these mean in terms of decision-making for better health outcomes” (Sparks & Villagran, 2010, p. 20). Sparks and Villagran (2010) stated that those with limited health literacy are likely to feel difficulties in understanding important information about their health and health care. With respect to this, Sparks and Villagran (2010) and Li et al. (2012) stated that visual aids for complex health information (e.g., picture system or animation) can help those with limited health literacy better understand the information. As previously stated, the findings from this study indicate that video features (e.g., picture, subtitle, or music) of health information on YouTube could help users more interested in the goals of good health care by enabling them to easily and enjoyably understand health information. In this regard, if health professionals and organizations actively create health-related content with visual aids on YouTube and share it with users with limited health literacy, these users could be more motivated to pursue the goals of maintaining good health by better understanding of important information about their health and health care.

On the other hand, the findings from this study support existing research indicating that the vast amount of health information on YouTube may make users feel difficulties in clearly discerning which information is appropriate and trustworthy (e.g., Syed-Abdul et al., 2013). Also, existing research indicated that informative health information and misleading health information coexist on YouTube and that misleading information could have a detrimental impact on users' health care (e.g., Hossler & Conroy, 2008). In this regard, this study recommends that health professionals and organizations actively create health promotion channels on YouTube and share more informative and accurate health information with users. In addition, as Syed-Abdul et al. (2013) recommended, this study also recommends health professionals and organizations to actively flag misleading health information on YouTube to filter misleading information and thereby prevent users from carelessly being exposed to misleading information and having misperceptions of health and health care. In doing so, health professionals and organizations could help users empowered in health care and promote their health in the right way.

Limitations and Suggestions for Future Research

There are some limitations that should be addressed in future research. The first limitation deals with the sample. Specifically, the findings from a convenience sample that consisted of college students should not be generalized to other populations of health-related YouTube users without caution. For example, users with limited health literacy, including those aged over 65 or those with a high school-level education, are likely to feel more difficulties in searching for or understanding important health information when compared to those with high health literacy (Sparks & Villagran, 2010). In this regard, it is expected that the sample in this study and the population of users with limited health literacy may differ in the outcomes of

health-related YouTube use such as the sense of empowerment regarding health and health care.

Pew Internet & American Life Project (2011) reported that 31% of the Internet users aged over 65 and 63% of the Internet users with a high school-level education have used an online video-sharing website such as YouTube. Also, Pew Internet & American Life Project (2013) reported that 58% of the Internet users aged over 65 and 63% of the Internet users with a high school-level education have searched for health information online. Considering these reports indicating that a considerable number of the Internet users with limited health literacy have looked at online resources, including YouTube, for health information, examining this population in future research is warranted to get a clearer picture of how users would differ in their health-related YouTube uses and gratifications (e.g., sense of empowerment) depending on their levels of health literacy.

The second limitation deals with measurement issues. Specifically, motives for health-related YouTube use were measured using items from previous research that identified the motives for watching television (Rubin, 1981, 1983); the motives for interpersonal communication (Rubin, Perse, & Barbato, 1988); and the motives for the Internet use (Papacharissi & Rubin, 2000). Given that these items describe motives for specific media use or interpersonal communication in general rather than specifically in health-related context, future research needs to further develop the items for measuring motives for health-related YouTube use from more open-ended responses by or focus-group interviews with health-related YouTube users.

In addition, sense of empowerment regarding health and health care was measured using items from the psychological health empowerment scale (Menon, 2002). It is possible that responses to this scale might be related to social desirability

bias, which refers to “when a participant changes how he or she scores on a measure to be perceived in a ‘better light’ than her or his actual scores would reveal” (Wrench, Thomas-Maddox, Richmond, & McCroskey, 2013, p. 238). For example, since the responses to this scale were based on the respondents’ self-reports, it is possible that respondents might overestimate their ability to cope with health-related concerns during the survey. In this regard, future research using this scale should measure respondents’ levels of social desirability as well (e.g., Marlowe-Crowne social desirability scale; Crowne & Marlowe, 1960) and control the possible effect of social desirability on the sense of empowerment.

The third limitation deals with the concept of health information on YouTube. Specifically, diverse health-related topics (e.g., “drug safety or recalls,” “caring for an aging relative or friend,” or “certain medical treatments or procedures”) were termed health information in this study. Existing uses and gratifications literature has indicated that people differ in their motives for media use depending on the media content (e.g., Hanson et al., 2010). With respect to this, existing research has indicated that users utilize YouTube for the discussion of health-related issues (Briones et al., 2012); for the social support for those with specific diseases (e.g., Naslund et al., 2014); or for information about treatments (e.g., Hayes et al., 2014).

In this regard, it is expected that users may differ in their primary motives for health-related YouTube use depending on the types of health-related topics they are concerned with. For example, it is expected that users concerned with “drug safety or recalls” may use YouTube primarily for discussion, whereas users concerned with “caring for an aging relative or friend” may use YouTube primarily for social support. On the other hand, users concerned with “certain medical treatments or procedures” may use YouTube primarily for relevant information. Thus, examining motives for

using YouTube for diverse health-related topics in future research is warranted to examine how users would differ in their primary motives for health-related YouTube use depending on the types of health-related topics they are concerned with.

Lastly, the fourth limitation deals with an unexamined variable. Although this study found that health-related YouTube use is related to the sense of empowerment, this study did not examine how the sense of empowerment is related to the change in actual health-related behaviors that would ultimately promote users' health. With respect to this, Oh and Lee (2012) found that the sense of empowerment for diabetes patients who participated in the diabetes online community was positively related to their intention to actively communicate with the doctor.

Given this finding, it is expected that the more empowered regarding health and health care users feel after health-related YouTube use, the more likely they are to feel comfortable engaging in activities that would actually promote their health such as active communication with health professionals or appropriate treatment adherence. In this regard, future research could examine how health-related YouTube use is related to the change in not only sense of empowerment regarding health and health care but also actual health-related activities.

Conclusion

This study demonstrated that users gratify their needs for coping with health-related concerns (i.e., empowering themselves in health care) through the utilization of YouTube. However, given that the vast amount of health information on YouTube, where misleading information and informative information coexist, may hinder users from being empowered in health care, this study recommends health professionals and organizations to support users by actively providing informative and accurate health information to them and filtering misleading information on YouTube.

Appendix A: Survey Questionnaire

Request to Complete a Survey for the Research on the Health-related YouTube Use

Hello, my name is Daniel Park. I am a graduate student in the M.A. program in Applied Communication. I am conducting research on what motivates us to utilize YouTube for health-related reasons, how we process health information found on YouTube, how we communicate the information with others, and how our perceptions of health and health care change as a result of utilizing YouTube.

Throughout the survey, you will be asked about your experiences of using the online sources, especially YouTube, for health-related reasons. Some examples of health-related online source use include using the online source to look for information about a “specific disease or medical problem,” “certain medical treatments or procedures,” “how to lose weight or how to control your weight,” “health insurance, including private insurance, Medicare or Medicaid,” “food safety or recalls,” “drug safety or recalls,” “a drug you saw advertised,” “medical test results,” “caring for an aging relative or friend,” “pregnancy and childbirth,” “how to reduce your health care costs,” or any other health issue.

I am asking for your consideration to participate in a survey which should take no more 15 minutes of your time. Participation is voluntary and anonymous and all response will be kept confidential. The data will be used only for statistical analysis and recorded in a manner that you cannot be identified. If you have any question about this research, you may contact me at parkday@iupui.edu.

Thank you so much for helping with this research.

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First set of questions is related to what kind of online sources you have used for health-related reasons and whether or not you have used YouTube for specific reasons.

Q1. Which of the following online sources have you utilized for health-related reasons (e.g., looking for health-related content)? With respect to your own experiences, please indicate how much you have used each of the sources by checking one of the five alternatives below (i.e., Never, Rarely, Occasionally, Frequently, Very Frequently). After finishing Q1, please move to Q2.

| How much have you utilized the following online sources for health-related reasons? | Never | Rarely | Occasionally | Frequently | Very Frequently |
|---|-------|--------|--------------|------------|-----------------|
| YouTube | | | | | |
| Google | | | | | |
| Bing | | | | | |
| Yahoo | | | | | |
| WebMD | | | | | |
| Wikipedia | | | | | |
| Facebook | | | | | |
| Twitter | | | | | |
| LinkedIn | | | | | |

Q2. If you have utilized YouTube for health-related reasons (e.g., looking for health-related content), why did you specifically utilize YouTube? With respect to your own reasons, please indicate the degree of your agreement or disagreement with each statement by checking one of the five alternatives below (i.e., Strongly Disagree, Disagree, Neither Disagree nor Agree, Agree, Strongly Agree). After finishing Q2, please move to Q4 (If you never utilized YouTube for health-related reasons, skip Q2 and move to Q3).

| I utilized YouTube for health-related reasons ... | Strongly Disagree | Disagree | Neither Disagree nor Agree | Agree | Strongly Agree |
|--|-------------------|----------|----------------------------|-------|----------------|
| 1. To communicate with family and friends | | | | | |
| 2. Because it's exciting | | | | | |
| 3. Because it's fun to play around and check things | | | | | |
| 4. To meet new people | | | | | |
| 5. To keep up with current issues or events | | | | | |
| 6. Because it's enjoyable | | | | | |
| 7. Because I can use it anytime | | | | | |
| 8. Because it's something to do when friends come over | | | | | |
| 9. Because it passes the time away particularly when I'm bored | | | | | |
| 10. So I can talk to other people about what's going on | | | | | |

| I utilized YouTube for health-related reasons ... | Strongly Disagree | Disagree | Neither Disagree nor Agree | Agree | Strongly Agree |
|--|--------------------------|-----------------|-----------------------------------|--------------|-----------------------|
| 11. So I won't have to be alone | | | | | |
| 12. Just because it's there | | | | | |
| 13. To belong a group with the same interests as mine | | | | | |
| 14. Because I can express myself freely | | | | | |
| 15. Because it's entertaining | | | | | |
| 16. To see what's out there | | | | | |
| 17. To give my input | | | | | |
| 18. Because it makes me feel less lonely | | | | | |
| 19. To search for information | | | | | |
| 20. Because it's just a habit, just something to do | | | | | |
| 21. When I have nothing better to do | | | | | |
| 22. Because I enjoy answering other people's questions | | | | | |
| 23. To get more points of view | | | | | |
| 24. Because I like to use it | | | | | |
| 25. Because it's thrilling | | | | | |
| 26. To help others | | | | | |
| 27. Because I need someone to talk to or be with | | | | | |
| 28. To participate in discussions | | | | | |
| 29. To get information for free | | | | | |
| 30. Because it amuses me | | | | | |
| 31. Because it gives me something to occupy my time | | | | | |
| 32. Because I can view material in videos online, and I don't have to pay for them | | | | | |
| 33. Because it provides an interesting way to do research | | | | | |
| 34. Because I just need to talk about my problems sometimes | | | | | |
| 35. Because it's easier to get information | | | | | |
| 36. To show others encouragement | | | | | |
| 37. Because it relaxes me | | | | | |
| 38. To tell others what to do | | | | | |
| 39. Because it is easier than telling something offline | | | | | |
| 40. Because I'm curious about what others think about something | | | | | |
| 41. Because it's reassuring to know someone is there | | | | | |

| I utilized YouTube for health-related reasons ... | Strongly Disagree | Disagree | Neither Disagree nor Agree | Agree | Strongly Agree |
|---|--------------------------|-----------------|-----------------------------------|--------------|-----------------------|
| 42. Because I want someone to do something for me | | | | | |
| 43. To let others know I care about their feelings | | | | | |
| 44. So I can learn how to do things which I haven't done before | | | | | |
| 45. To get something I don't have | | | | | |
| 46. Because I'm concerned about others | | | | | |
| 47. So I could learn about what could happen to me | | | | | |
| 48. To thank others | | | | | |
| 49. Because it helps me learn things about myself and others | | | | | |
| 50. Because it makes me feel less tense | | | | | |

Q3. If you never utilized YouTube for health-related reasons (e.g., looking for health-related content), why didn't you utilize? Please fill out the blank below with your own reasons. After finishing Q3, please move to Demographic Questions.

| I never utilized YouTube for health-related reasons because ... |
|--|
| |

Second set of questions is related to what you thought, felt, or did during and after utilizing YouTube for health-related reasons.

Q4. What did you think when you were watching the health-related content on YouTube (i.e., health-related videos or comments)? With respect to your own experiences, please indicate the degree of your agreement or disagreement with each statement by checking one of the five alternatives below (i.e., Strongly Disagree, Disagree, Neither Disagree nor Agree, Agree, Strongly Agree). After finishing Q4, please move to Q5.

| Please indicate the degree of your agreement or disagreement with each statement. | Strongly Disagree | Disagree | Neither Disagree nor Agree | Agree | Strongly Agree |
|---|--------------------------|-----------------|-----------------------------------|--------------|-----------------------|
| 1. When I watched, I thought about what the health-related content meant to me and my family | | | | | |
| 2. When I watched, I thought about how the health-related content relates to other things that I know | | | | | |
| 3. When I watched, I thought about what the health-related content meant to other people | | | | | |
| 4. When I watched, I thought about the health-related content over and over again | | | | | |

Q5. What did you do online after you watched the health-related content on YouTube (i.e., health-related videos and comments)? With respect to your own experiences, please indicate the degree of your agreement or disagreement with each statement by checking one of the five alternatives below (i.e., Strongly Disagree, Disagree, Neither Disagree nor Agree, Agree, Strongly Agree). After finishing Q5, please move to Q6.

| Please indicate the degree of your agreement or disagreement with each statement. | Strongly Disagree | Disagree | Neither Disagree nor Agree | Agree | Strongly Agree |
|---|--------------------------|-----------------|-----------------------------------|--------------|-----------------------|
| 1. I went online to read more about the health-related content I watched on YouTube | | | | | |
| 2. I went online to chat with friends about the health-related content I watched on YouTube | | | | | |
| 3. I went online to talk to others about the health-related content I watched on YouTube | | | | | |
| 4. I went online to participate in a poll about the health-related content I watched on YouTube | | | | | |
| 5. I surfed the Web for more information about the health-related content I watched on YouTube | | | | | |
| 6. I posted messages or comments, or posted or shared videos online about the health-related content I watched on YouTube | | | | | |
| 7. I went online to view additional videos about the health-related content I watched on YouTube | | | | | |
| 8. I went online to chat with people who have the same interest in the health-related content I watched on YouTube | | | | | |

Q6. What did you feel regarding your health and health care after utilizing YouTube for health-related reasons (e.g., looking for health-related content)? With respect to your own experiences, please indicate the degree of your agreement or disagreement with each statement by checking one of the five alternatives below (i.e., Strongly Disagree, Disagree, Neither Disagree nor Agree, Agree, Strongly Agree). After finishing Q6, please move to Demographic Questions.

| Please indicate the degree of your agreement or disagreement with each statement. | Strongly Disagree | Disagree | Neither Disagree nor Agree | Agree | Strongly Agree |
|--|--------------------------|-----------------|-----------------------------------|--------------|-----------------------|
| 1. I have the time and finances to choose a healthy lifestyle and healthful conditions | | | | | |
| 2. I have the resources to maintain good health | | | | | |
| 3. I know I have access to health care when I need it | | | | | |
| 4. I know I can get good health care if I need it | | | | | |
| 5. I know I can get the support I need to stay healthy | | | | | |
| 6. I am confident that my doctor and other health services providers are acting in my best interests | | | | | |
| 7. I am confident that my doctor and other health services providers will respect my wishes and dignity to the extent possible | | | | | |

| Please indicate the degree of your agreement or disagreement with each statement. | Strongly Disagree | Disagree | Neither Disagree nor Agree | Agree | Strongly Agree |
|--|-------------------|----------|----------------------------|-------|----------------|
| 8. I know that my doctor and other health services providers will provide the information I need | | | | | |
| 9. I know that my doctor and other health services providers will inform me of my choices with regard to my health and health care | | | | | |
| 10. I know I can influence my doctor's and other health services providers' decisions regarding my health and health care | | | | | |
| 11. I know I have the power to make decisions concerning my health | | | | | |
| 12. I am aware of my protections under the law with regard to health and health care | | | | | |
| 13. I have the capability and knowledge required to maintain a healthy lifestyle | | | | | |
| 14. I believe I can lead a healthy lifestyle | | | | | |
| 15. I believe I am able to make the right decisions to maintain good health | | | | | |
| 16. I believe I have the competence to be healthy | | | | | |
| 17. I have the ability to manage minor ailments that do not require specialized medical assistance | | | | | |
| 18. I believe I have the competence to know when to see a doctor | | | | | |
| 19. I know how to seek specialized medical assistance when needed | | | | | |
| 20. I believe I have the competence to seek appropriate medical care | | | | | |
| 21. I can clearly communicate my needs to my doctor and other health service providers | | | | | |
| 22. I think I know what questions to ask my doctor and other health services providers | | | | | |
| 23. I can understand the information given to me by my doctor and other health service providers | | | | | |
| 24. I am capable of following directions or medical advice given to me by my doctor and other health service providers | | | | | |
| 25. I know how to deal with procedures and paperwork related to my health care | | | | | |
| 26. I know what to do when I am not satisfied with the health care I received | | | | | |
| 27. I believe that being healthy is very important | | | | | |
| 28. I am keen on maintaining good health | | | | | |

| Please indicate the degree of your agreement or disagreement with each statement. | Strongly Disagree | Disagree | Neither Disagree nor Agree | Agree | Strongly Agree |
|---|-------------------|----------|----------------------------|-------|----------------|
| 29. I am enthusiastic about my own efforts to maintain good health | | | | | |
| 30. I believe that improving everyone's health is important | | | | | |
| 31. I believe that improving the quality and availability of health care services is important | | | | | |
| 32. I am inspired by what we are developing in health care | | | | | |
| 33. I am inspired by the goals of the health care providers to improve people's health | | | | | |
| 34. I am enthusiastic about the recent health care reforms to improve health care available to people | | | | | |

Demographic Questions

1. What is your sex?

(1) Female (2) Male

2. How old are you?

() years old

3. What is your education level?

(1) First year (2) Sophomore (3) Junior (4) Senior (5) Graduate school student

4. Are you international student?

(1) Yes (2) No

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Curriculum Vitae

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Education

- **Indiana University-Purdue University Indianapolis (IUPUI)**, Indianapolis, Indiana, 2013-2015
 - Master of Arts in Applied Communication
 - Thesis: The health-related uses and gratifications of YouTube: Motive, cognitive involvement, online activity, and sense of empowerment
- **Hanyang University**, Seoul, Korea, 2010-2012
 - Master of Arts in Communication and Journalism
 - Thesis: A study on the agenda-setting effects of Twitter: Focus on the issues of the 19th general election
- **Hanyang University**, Ansan, Korea, 2003-2007
 - Bachelor of Arts in Journalism and Mass Communication
 - Final Project: Critical semiotic analysis: Korean movie “The Host”

Leadership and Internship Experiences

- **Leadership Team Member**, IUPUI Speaker’s Lab, Indianapolis, Indiana, 2013-2015
- **Intern**, Research & Research, Inc., Seoul, Korea, 2010
 - Internship at “Fieldwork” team and “Marketing & Research” team
- **Military Officer**, ROK Army, Korea, 2007-2009
- **Intern**, Educational Broadcasting System (EBS), Seoul, Korea, 2006
 - Internship at “Early Childhood Education Program” team

Awards

- Outstanding Graduate Paper Award by the IUPUI Department of Communication Studies for *Antecedents of job satisfaction among intimate partner violence shelter staff: Coworker relational maintenance strategies, communication satisfaction, burnout and organizational commitment*, April 2014
- Budding Poets Award of the Spring 2012 by the Korean literary magazine “Wilderness,” April 2012

Publications

Park, D. Y. (2012). *A study on the agenda-setting effects of Twitter: Focus on the issues of the 19th general election* (Unpublished master’s thesis). Hanyang University, Seoul, Korea.

Park, D. Y. (2010). *Decanting cantabile*. Seoul, Korea: Migunsa.

- Collection of personal poems

Presentation

Laorujiralai, K., Maniloff, J., Paholski, L., Park, D. Y., Sugumar, V., & Yates, R. (2014, April). *Antecedents of job satisfaction among intimate partner violence shelter staff: Coworker relational maintenance strategies, communication satisfaction, burnout and organizational commitment*. Poster session presented at the IUPUI Research Day 2015, Indianapolis, IN.