THE INTERNET USES AND GRATIFICATIONS FOR HEALTH INFORMATION AMONG QUINQUAGENARY AND OLDER CHINESE
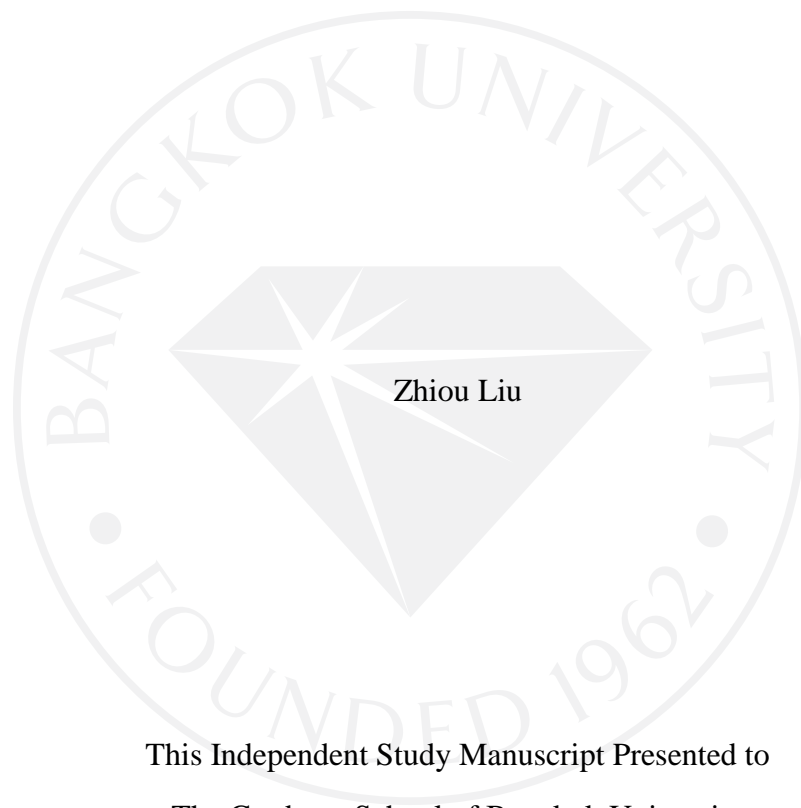
THE INTERNET USES AND GRATIFICATIONS FOR HEALTH

INFORMATION AMONG QUINQUAGENARY AND OLDER

CHINESE

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This Independent Study Manuscript Presented to

The Graduate School of Bangkok University

in Partial Fulfillment

of the Requirements for the Degree

Master of Communication Arts

2015

**This Independent Study has been approved by
the Graduate School
Bangkok University**

Title: THE INTERNET USES AND GRATIFICATIONS FOR HEALTH INFORMATION
        AMONG QUINQUAGENARY AND OLDER CHINESE

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<u>The Internet Uses and Gratifications for Health Information among Quinquagenary and Older Chinese</u> (69 pp.)

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ABSTRACT

Owing to its fast development, Internet has become one of the main channels for people to acquire health-related information with its convenience and interactivity. As a matter of fact, inaccurate information also exists among those massive amounts of health-related information. In this paper, under the framework of health communication and in accordance with Uses and Gratifications theory, the author takes Internet health information as the research matter and probes into the relevancy among the three variables of the 230 respondents, which are use behaviors, motives, and gratifications among the quinquagenary and older Chinese Internet users.

Quantitative research method and questionnaire survey have been used in this research to analyze the Internet health information usage and gratifications among the quinquagenary and older Chinese Internet users as well as giving references to the future studies on health communication in China.

The research findings indicate that most of the quinquagenary and older Chinese Internet users are male who are highly educated and aged between fifty and fifty-nine; most of them have steady jobs, concern about their health conditions and not retired yet. For this group of people, there are three kinds of motives/needs for them to use Internet health information, which are "Information seeking motives", "Social-related motives", and "Internet Characteristics motives" and the strongest motive is Information seeking Motives, followed by Internet Characteristics Motives, and then Social-related Motives. Three kinds of gratifications they got, which are "Information Gratifications", "Decision-supporting Gratifications", and "Communication Gratifications" and the strongest degree of gratifications is Communication

Gratifications, followed by Decision-supporting Gratifications, and then Information Gratifications. To do further analysis, we find that that there is a positive correlation between Information seeking motives and Information gratifications; positive correlations between "social-related motives" and "Decision-supporting gratifications" as well as "Internet characteristics motives" and "Decision-supporting gratifications"; and positive correlation between social-related motives and communication gratifications.

Key words: Uses and Gratifications Theory, Health Communication, Internet Health-related Information, the Quinquagenary and Older Chinese
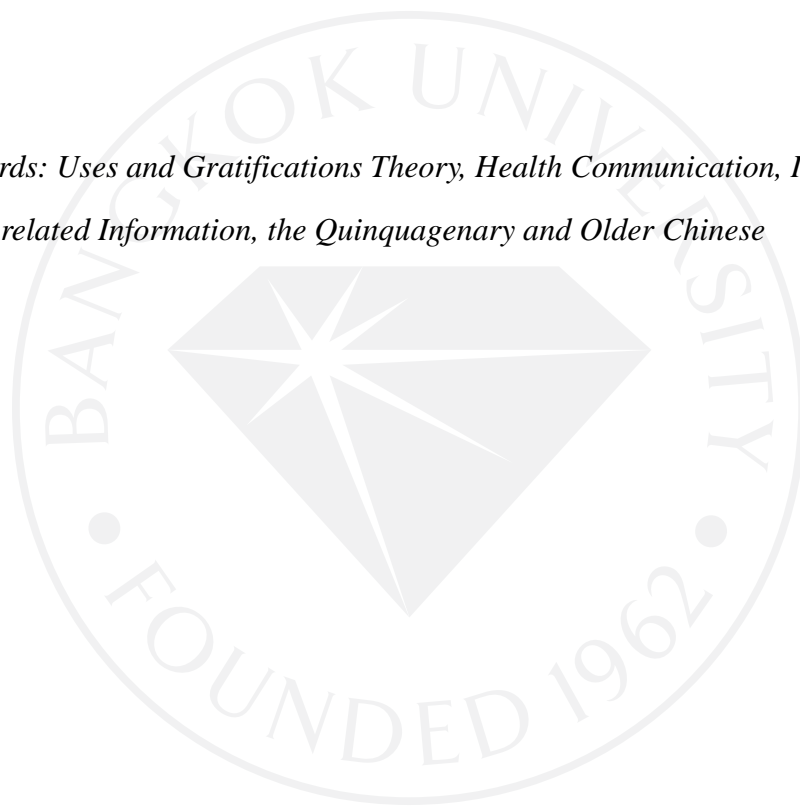
ACKNOWLEDGEMENTS

Generally, I would like to express my deep appreciation to all of people who help me to finish my dissertation. First of all, my gratitude goes to my supervisor. Thank you very much for his generous help and professional suggestions. His patient expression and active discussion are really helpful for me. Secondly, during the academic years, I am grateful all tutors in the Faculty of Communication for unfailing encouragement and interesting teaching.

At last, I extremely enjoy the life in Thailand these years. Thanks for my parents to support me to study abroad. And I also feel warm with my friends. Thank you for helping me on my study and my daily life.
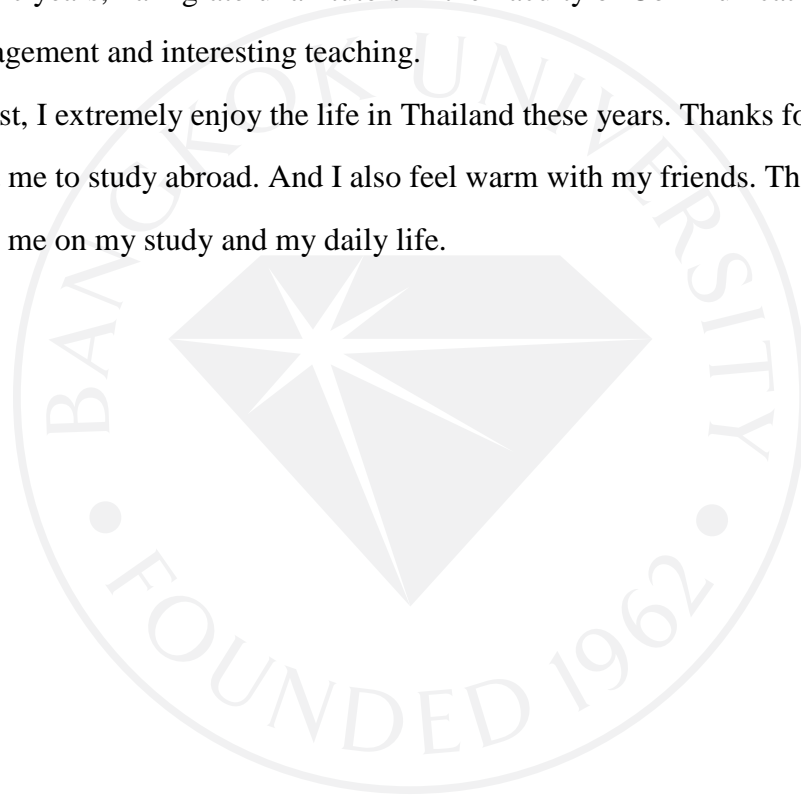
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CHAPTER 1

INTRODUCTION

1.1 Main Research Background

In the recent years, with computer becoming more and more popular and personalized, Internet has penetrated into our daily life, work and study. The main function of Internet is to serve as an infobahn and this function has already been widely and fully used by the Chinese Internet users. Data from China Internet Network Information Center (CNNIC) show that Internet is the main information channel of 80.9% Chinese Internet users, ranking the first place in information sources among the Chinese Internet users in 2014.

With the rapid development of information technology, owing to the convenience and interactivity features of its information and data, Internet becomes one of the main channels for getting health related information between both general public and those professionals in health care field. Because of its convenience and efficiency, populace can search for the health related information and solutions before they are going to make decisions. According to the report of Pew Internet and American Life Project (2011), the number of Internet users on the purpose of searching for health information through Internet was up to fifty-eight million, accounted for 53% of the total number of Internet users.

In China, as the information technology develops at a very fast speed, the capacity of the Internet and the number of Internet users increase sharply. As a result, the number of Internet users on online searching for health information explodes as well. In accordance with the report from China Internet Network Information Center (2014), it shows that at present, 45.0% of Chinese Internet users get access to the Internet with the purpose of obtaining information (products and services, job information, medical and health services, government information, and etc.). It means that Internet has become one of the main approaches of obtaining health information

among the Chinese people. Up to 2014, China has the biggest population of Internet users which is approximately six hundred million, but yet, there is not any relevant data demonstrate the details of the use of Internet health information among the mainland Chinese Internet users. The huge absolute number of total Chinese Internet users can certifies that the absolute number of the Chinese Internet users of health information should also be a large amount. In recent time, the amount of health-related websites in China has increased over the years, providing diversified and numerous kinds of resources of physical and mental health, diet and nutrition, prevention and other health care information. It shows in the CNNIC report (2014) that there are more than two hundred health-related websites all over China and in order to drive up click-thru rates, almost all the comprehensive websites in China did set up a section for health information. Based on the date of iResearch(2013), health-related websites are already covered forty million Internet users, topped the list of life-support information service section among Internet websites. On account that health information has a close relationship with our health and even life, when more and more people acquire health information through Internet, the accuracy of those health information and whether they can be able to fulfill people's needs become the urgent issues which need further study. Hence, the author of this paper chooses Internet health information as the research topic.

On the basis of the natural cycles of life, the older we are, the much more likelihood of various kinds of diseases may occur on our health. Thus, health is one of the most concerns among the quinquagenarians and older people. Results supported by CNNIC (2014) showed there are 4.5% of total Chinese Internet users are those people aged over 50 years old, which means there are approximately 27 million Chinese Internet users are aged over 50 years old. As more and more quinquagenary and older Chinese joined in using Internet, the Internet itself has become one of those people's main ways of getting health information. For this reason, the research objects of this study are those Chinese Internet users age over 50 years old.

With the rapid expanding of Internet, our life is closely bound up with health information. To conduct a research on the use of Internet health information is not only helpful to understand the actual usage or needs of health related information among the public, but also an indispensable topic for discussion in the field of medical treatment and health. It is very necessary to conduct a research and analysis on the motives of using Internet health information, behaviors, and the degree of gratifications for those quinquagenary and older people who have remarkably concerns on their health. From a quantitative perspective, this research attempts to describe the current situation of Internet health information usage among the group of those quinquagenary and older Chinese.

1.2 The Objectives of the Research

Based on the uses and gratifications theory, the objects of this study are those quinquagenary and older Chinese. For the sake of providing references to relevant departments so that they can be able to better serve and educate Chinese quinquagenarians and older people on health issues. This research is going to probe into the current situation of the uses of Internet health information of the research objects and explore their motives, behavior and gratifications of using Internet health information. To be specific, the research purposes and objectives of this study can be listed as follows:

1. To investigate the demographic characteristics of quinquagenary and older Chinese who use Internet health information.

2. To investigate the behaviors of using Internet health information among the quinquagenary and older Chinese.

3. To investigate the motives of using Internet health information among the quinquagenary and older Chinese.

4. To investigate the degree of gratifications of using Internet health information among the quinquagenary and older Chinese.

5. To investigate the relationship between the motives and behaviors, as well as between the motives and the degree of gratifications of the quinquagenary and older Chinese.

6. To investigate the differentiation of motives, degree of gratifications, and use behaviors for those quinquagenary and older Chinese in respect to different demographic backgrounds.

1.3 The Significance of the Research

There are two main significance of the current study. Theoretically speaking, this study tries to enrich the current studies of health communication in China, to provide additional insights into Internet health communication researches in particular. Nowadays, there are few researches on the perspective of Internet health communication in mainland China. Therefore through this study, the author attempts to heighten the research and development of the Internet health communication in China.

From the view of practical perspective, the acquisition and use of health information go hand in hand with our daily life. This study tries to sum up suggestions to the means and content of health communication for health websites in China so that they could have the ability to make the Internet health communication become much more effective. Additionally, this research seeks for thorough understandings on current use of Internet health information among the quinquagenary and older Chinese, as well as for the ease of the relevant parties which may concerned in taking this study as a future reference in order that it beneficial for providing better health information services.

CHAPTER 2

LITERATURE REVIEW

2.1 Health Information

As one of the components of various information resources sharing in human society, health Information comes from researches and practices in the field of life science along with the features of objectivity, scientificity, convertibility, identifiability, and sharability (Mi & Wang, 1996).

Health information refers to the information about medical conditions and health care, including medical knowledge, health knowledge, healthy living, and other services that is provided direct to consumers (Elliot & Polkinhorn, 1994).

Wolf and Sangel (1996) defined health information as the knowledge of health promotion and preventive health behavior which should be systematically popularized, the treatment and services of chronic and specific diseases, the hardware facilities of medical aid providers and the relative information of health care and medical data.

A Chinese scholar defined health information as all the knowledge, skills, opinions, behavior patterns that related to human health, or the content coded, shared and delivered through health communication processes between the sources and the audiences (Lv, 1998).

Chen (2001), a Chinese scholar classified health information into fourteen categories which are general health care, health news, major illnesses, aged health care, women's healthcare, men's healthcare, infant health care, gender relations, cosmetology maintenance, weight control, mental health, food nutrition, alternative medicine, and medical works.

Different researchers managed to determine the definitions of health information from many different angles and aspects, covered medical treatment, hygiene, nutrition, health protection, diseases, diet, cosmetology, technology, medical facilities, and so on. Based on the above definitions on health information, in this paper therefore, the author defines health information as the knowledge, skills, perceptions, and behaviors

that people use to eliminate their uncertain factors on themselves diseases and other health conditions through various channels and means.

In the past, the dissemination of health information is mainly communicated through doctors, newspapers, magazines, seminars, colloquia, radio and TV broadcasting. Nowadays, with the prevalence of PC, Internet have penetrated into our daily life and becoming one of the most important ways of health communication. It is a trend for health-related organizations or institutions to offer health information to their audiences via Internet. Due to the globalization feature of Internet space, people can easily search and get access to whatever the health information they want to have. The advantages are the autonomy, convenience, and promptness features of Internet information search. While there are also some disadvantages hinder people from getting health information by means of the Internet such as, the digital gap, insufficiency of Internet accessibility and the lack of computer equipments (Che, 2001).

2.2 Internet Health Information

As the China's steady economic growth and the gradually optimized life style of Chinese people, along with the encouragement of health promotion in the world context, more people become aware of diseases prevention and have urgent need for health information. Particularly in the year of 2003, the spread of the SARS virus and other highly contagious viruses stimulated the public to pay more attention on the health issues. And the Internet, with its interactive, convenient, hypertext-based, multi-media, and many other features, is now becoming the most frequently used channel for providing and delivering information. Therefore, a variety of health related websites have been developed rapidly.

Now there are a lot health websites containing various kinds of health topics on the Internet, including the health pages under the comprehensive websites and those specialized health websites. Numerous of these websites covered all types of topics

such as health knowledge, disease prevention, mental health, oral health, AIDS-related knowledge and so on.

Health website can be defined as the World Wide Web websites that open for all the Internet users established by medical institutions, organizations, public interest groups, commercial organizations, individuals or other institutions for the purposes of providing health information and health-related services (Zeng & Zhang, 1997).

According to different standards, health websites can be classified into many types. Bao (2001), a Chinese scholar from Fudan University did classify the health websites on the basis of their different content and service objects as follows:

1. The first category takes professionals in the field of medical treatment and public health as service objects, mainly to provide various medical information, literature retrieval services at home and abroad, academic exchange platform, medical personnel qualification examination related services, E-medical education, and the promotion and introduction of new technology and pharmaceutical products. Main websites: haoyisheng.com, 360doc.com, and so on. Most of these websites have got high visibility among medical and health care field and they focus on E-medical education as well as doctor service.

2. The second category takes general population in the whole society as service objects, mainly to disseminate and popularize health and hygienic knowledge as well as to provide medical treatment guidelines and so on. A few of these websites provide online shopping service for health products. Some of these websites cooperate with hospitals and provide online appointment, E-consultation and other services. Representative websites such as 39.net, jk123.com, and so on. Due to the particularity of the medical industry, the state has very strict laws and regulations on all medical-related activities. Therefore, such websites offer a limited variety of services, basically can only provide some knowledge of medical science. The most attractive point of these websites is the E-consultation service, but it's hard to carry out widely due to the limitation of technology, capital and legal condition, particularity of

diagnosis and treatment process, and so on.

3. The third category, mainly focus on to provide a B2B e-commerce platform for a variety of business activities such as electronic trading, bidding and purchasing in the medical field. Such websites mainly provide a variety of business activities information for hospitals and pharmaceutical companies. Its main representatives are: emedchina.cn, hyey.com, and so on. An obstacle in the development of these websites is the perception of people still remains to be updated and its technology also needs further improvement.

4. The fourth category is those websites owned by medical and health institutions, pharmaceutical enterprises, medical agencies, medical colleges and hospitals. These websites are the publicity windows and information release channels of their own organizations. The typical website such as: the website of State Drug Administration (www.sda.gov.cn) and so on. Although this kind of websites not as good as those commercial websites in terms of operation, they still own a lot attentions owe to their resource advantages.

Besides, according to different organizers, the health websites can be classified into five categories: government websites, medical teaching and medical scientific research websites, commercial websites, hospital and health-related social organizations, and personal websites (Gao, 2001).

From the above classifications, we can find that there are plenty of health websites covering almost all walks of our life. Abundant information allows people to search any information they need. At the meantime, huge amount of information also makes people even harder to find the information which can really fulfil their needs.

By combining with the characteristics of Internet media and Lv's definition on health information, this research defines Internet health information as the knowledge, technology, perceptions, and behavior patterns which are conveyed by health-related websites and used by people to eliminate their diseases and other health-related uncertain factors.

To disseminate health information through Internet, to stimulate consumers actively seeking health products, services and treatment information, to help people understand the diseases and other health issues in order to make positive behavior changes are the main points of this paper. Under the framework of health communication, this research will probe into the motives and use behaviors of Internet health information on the basis of Uses and Gratification theory.

2.3 Health Communication

Before the term "Health Communication" has been formally put forward, there was another concept called "Therapeutic Communication" which was more accepted by the Western communication field and this concept was deeply associated with medical science. It was irreplaceable until a broader concept named "Health Communication" appeared during the mid-1970s.

In terms of the concept "Health Communication", various scholars have their definitions respectively. Everett Rogers, an American scholar has given three definitions of this term. He elaborated it from a communication perspective by saying that health communication has four layers which are intrapersonal health communication, interpersonal health communication, organizational health communication, and mass health communication. From interpersonal communication perspective, Burgoon (2002) defined health communication as "health communication is the dynamic interactions between the medical providers and patients and innumerable interpersonal communication activities in the consulting room." From mass communication perspective, Jackson (1992) defined health communication as "health communication is the transmission of health information through mass media channels in order to prevent diseases and promote health. Effective health communication has a great impact on peoples' attitudes towards health knowledge and behavior change so that it can effectively enhance the citizens' life quality and promotes health standards. "

Mainland China started late on the researches of health communication. As matters stand presently, several influential projects have been conducted; there were the schistosomiasis prevention and control of movement before liberation, family planning policy started in the 1970s, mass polio vaccination campaigns in time of the 1980s, the movement of AIDS prevention and control during the 1990s, SARS prevention and control of movement in 2003 and so on and so forth.

In Chinese mainland, instead of communication field, health education field firstly introduced the concept of health communication. And for a long time, the academic research papers related with health communication in mainland China are mostly published on those specialized journals like *Chinese Journal of Health Education* under the country's health system. For communication field, in turn, the researches and publications covered health communication issues are nearly blank.

Due to the public health crisis and mass panic caused by SARS and AIDS in 2013, studies about health communication have been developed. In the same year, the Chinese Health Education and Mass Communication Forum has been hold at China hall of science and technology in Beijing. It was considered as the direct dialogue between medical science and mass communication field in China and it was the largest nationwide workshop since the foundation of the state, it was also the first health-communication-themed academic seminar in China. Since then, the health communication studies have been gradually developed in mainland China.

2.4 Theories, Research orientations and Approaches of Health Communication

In American, health communication field has two main subfields: one is health care delivery; the other one is health promotion. Health care delivery is more focused on interpersonal health communication and doctor-patient relationship. By acquiring the communication skills between the health care providers and their consumers, it will be easier to communication, receive health information, make treatment choices and etc. Health promotion is more focused on medium and mass health

communication. Practitioners can readily exert influence on consumers' perceptions, attitudes and behaviors by persuasion means (Kreps, Bonaguro, & Query, 1998). Historically, these two subfields never stopped competing against each other for a long time until recent years they start to merge together.

Health communication has a wide range of research topics, not only focus on disease prevention (HIV, heart diseases, diabetes, and so on), but also including drug abuse prevention, doctor-patient relationship research, birth control, accidental pregnancy prevention, the early detection of cancer, smoking cessation, and so on. Zhang (2005), one of the Chinese health communication scholars claims that health communication is a multi-dimensional and multi-layered complex system. As an academic crossroad, the establishment of health communication research is on the basis of a variety of many other researches such as mass communication, sociology, anthropology, psychology, linguistics, medical science, pedagogy, management science, and so on. He also divides health communication research into nine directions: the research on the media and effect of public health communication, organizational health communication studies, interpersonal health communication, health education and health promotion research, the research on the external environment of health communication, health communication and culture studies, specific research topics such as AIDS, euthanasia, homosexuality, organ transplantation and etc., the history of health communication studies, public health emergencies issues studies (public health crisis).

Theories have been applied in health communication research present a multiplex tendency, including Social learning theory, Persuasion, Agenda-setting theory, Diffusion of innovation theory, Social marketing, Exchange theory, Public relations, Behavioral intention, Health belief model, Uses and gratifications theory, and so on. Among them, Social marketing, diffusion of innovation theory, and Social learning theory are the most significant theories in health communication (Rogers, 1994).

Health communication research approaches draw lessons from the approaches of social studies, relying mainly on quantitative research and empirical research. Field survey, experimental research, focus group, content analysis, and time series analysis have been widely used in health communication researches.

2.5 Studies of Uses and Gratifications Theory

The uses and gratifications theory shifts the emphasis of media communication studies from an effect perspective to an audience perspective. It assumes that media users are goal-oriented. They play an active role in using and selecting the media to better fulfills their individual motivations and needs. This theory also assumes that the media users have all kinds of choices to satisfy their needs and each medium can have vary differ from functions. Lin (1999) claims that nowadays the uses and gratifications theory is broadly accepted for nearly all sorts of mediated communication tools. Audience' motivations to use a certain type of mediated communication have been studied through this theory whenever a new communication technology is introduced (Elliott & Rosenberg, 1987).

Internet is the most influential medium with innovative communication technology after the introduction of television. Therefore, the advent of Internet with its richness in information, high degree of interactivity, asynchronization, focused and personalized features can be considered as the second revitalization of the uses and gratifications theory. The active role of media audiences has been drastically improved by all of these Internet features. Uses and Gratifications theory emphasizes on the psychological needs and motivates, choice of media and communication contents, and psychological gratifications, thus, uses and gratifications theory can well predict computer-internet communication (Carolyn, 2002)."Uses and gratifications theory is the best theoretical model for the prediction of computer-mediated communications" added by Dixon (1996).

Recently, plenty of researchers applied uses and gratifications theory to Internet aspect, relevant studies especially empirical studies have been accumulated years by years. As a whole, the recent researches try to study the motivations and gratifications behind the Internet audiences of Internet technologies such as BBS, multi-user detection, WEB, e-paper, e-mail and etc. in order to get a bigger picture of media audience usage. Hence, in this paper, the author attempts to summarize the previous studies.

Most of the studies are empirical studies and the scholars put much more emphasis on the motives of Internet use and the factors that impact those motives. Kats (1997) assumed five needs for Internet users, which are cognitive needs, affective needs, personal integrative needs, social integrative needs, and tension release needs(West and Lynn, 2010).Since then, lots of foreign scholars (Zizi and Alan, 2000; Dimmatrova, 2000), Chinese mainland researchers (Peng, 2001; Hu, 2003; Xie and Meng, 2003; Zhao, 2003; Sun, 2004), and Taiwanese scholars (Zhuang, 1997; Xiao, 1998) are partially proposed somehow similar Internet use motives. Sharon (2000) did some research on the Internet uses and gratifications, employed factor analysis and found that control is one of the motives for the Internet users. Moreover, there were also some researchers deeply analyzed the factors which have impact on Internet use motives and concludes that the frequency of use, contents and activities, type of websites, education background, professional background are all have impact on the Internet use motives (Carolyn, 2000; Samuel, 2000; Robert, 2004; Bunz, 2001; Donchi, 2003).

Besides, many empirical studies on Internet technologies (such as www, e-mail, forum, electronic bulletin board, television websites, ADSL, online shopping, instant messaging, auction websites, music software, blogs and etc.) also show that people use different technologies depends on their different specific motives and acquire different gratifications. Interpersonal communication, education, and socialization motives have impact on email use (Stephen & Burning, 1994). People can get

gratifications when they use Web to fulfil their needs of social interaction, entertainment, seek for information and etc. (Barbara, 2002).Information need, social interaction, and entertainment are the motives of television station websites (Guo, 1999).Yu (2001) found that there is a significant correlation between motives and timing of television station website use, and different motives have different impact on the preference of television station website. Wei (2006) found that there are six motives of using blogs, which are information seeking, media surveillance, political surveillance, social surveillance, convenience, affections expression, and individual fulfilment. She also claims that there is a correlation between blog writing and self-disclosure and demographic characteristics. Ke (2004) found that the main reasons that attract and fulfil people's mental needs and make them to go and try online shopping are not only because of the wealth of information and convenience, but also because of the excitement of online bidding, the feeling and expectation of receiving goods, the quick update of fashion information, and so on. He also claims that the protection of privacy, the quality and word of mouth of the online products are the major consideration when people choose to shop online. Zhao (2004) found that interpersonal interaction, convenience and benefit are the main factors that can fulfil the motivational needs of interpersonal communication, instrumental motivation, entertainment and competition for auction websites users. Liu (2002) found that entertainment, sociality, and instrumental motivation are the main motives of ICQ users. Yin (2004) found that the perceived ease of use has impact on gratification degree when people use instant messaging. On the research of e-paper, Sun (2004) found that the database of e-media and the interactivity of hyperlink have become more and more important for e-paper users. Feng (2006) found that companionship and entertainment needs are the strongest motives of Webcast use. Lu (2008) found that there are five motives of AIDS-related forum use, which are anonymity/relaxation, support seeking, social interaction, information acquire, and companionship.

However, there are only a few researches applied Uses and Gratification theory on specific content or websites studies. Luo (2000) found that the motives of online news readers are escape/kill time, social interaction, information seeking, and save money. There are four motives for political information users, which are guidance, information seeking/surveillance, entertainment, and social utility (Barbara, 2003). The main motive of sports-related websites users is information seeking while the main motive of political-orientated chat room users is informational needs (Johnson, 2004).

In addition, there are some researches probe into the motives and behaviors of Internet use of some specific groups (such as teenagers, teachers, and etc.) on the basis of uses and gratification theory.

2.6 Studies of Uses and Gratifications on Internet Health Information

Uses and gratifications theory is suited for the study of Internet and specific kind of Internet information in particular. Therefore, it is also suitable for analyzing Internet health information. According to the research topic of this paper, the author is going to discuss the relevant studies on Internet health information and uses and gratifications theory in order to summarize the experience of previous studies and develop his own research.

Studies of uses and gratifications on Internet health information from abroad are mainly empirical studies which covered all groups of ages including teenagers, middle-aged people, and elderly people. Those studies discussed the types of Internet health information, the frequency of use, the means of searching health information, the impact of behavior, and so on. Additionally, content analysis has also been used to analyze the users of Internet health information and the health-related topics. In accordance with the author's retrieval, several studies have been found as below:

Victoria Rideout (2001) did a survey on the use of Internet health information among the teenagers aged between 15 to 24 years old. The result shows that

sixty-eight percent of teenagers have been used Internet for searching health information and thirty-nine percent of them responded that their behaviors changed due to the health information they got from the Internet. The health information they have searched includes cancer, diabetes, pregnancy, contraception, HIV and other venereal diseases, lose weight, mental health, drugs, violence, and so on.

Amanda Lenhart (2000) did a survey and the result shows that in America, there are 52 million adults (account for fifty-five percent of total Internet users in America) have used Internet for searching health information. These people searched health information for themselves and the people they care through Internet and help them understand many health issues. Among those people who use Internet for searching health information, twenty-nine percent of them would search for medical information once a week, thirty percent of them would search for medical information once a month; and the result also showed that people with bad or less good health conditions would be more frequently use Internet health information. To distinguish by genders, sixty-three percent of female Internet users have searched for health information while only forty-six percent of male Internet users have done the same thing. Disease information was more preferred by people than medical care information when they were searching health information. Result showed that ninety-one percent of the respondents searched for disease information, twenty-six percent of them searched mental health information, thirteen percent of them searched nutrition information, and eleven percent of them searched medical care knowledge. The results pointed out that most of the Internet health information users were one-way communication oriented, which means they lack of interaction with medical personnel. Only ten percent of the Internet health information users would like to communicate with doctors as well as buy drugs and vitamins. There were less than twenty-one percent of them would leave their e-mail addresses and personal information on the Internet. Research results also indicated that fifty-four percent of health information searchers were searching information for their kids, parents, or other relatives. A search called

Online Health Search conducted by Susannah (2006) demonstrated that women, middle aged people, and college-educated people would like to use Internet for searching health information and their most concerns are diet and Rx drugs information. Research result also stated that most of the Internet health information users search health information via search engines or health-related websites by themselves. Bernhardt (2002) carried out an exploratory study which includes fifteen focus groups and depth interview on African American and European American on Internet-based health communication on human genetics. The result shows that the respondents think that Internet has great power on delivering health information, however many of them worried about the accuracy and reliability of the online information, so they have strong concerns on their privacy and lack of trust for many websites. Dorothy (2007) did a research on the behaviors and process of women who seeks for health information via Internet and found that the Internet health information have great impact on decision making when those women Internet health information users is going to have medical treatments and those women Internet health information users were more willing to communicate with medical professionals on Internet.

Studies of uses and gratifications on Internet health information in Taiwan are mostly come from master dissertations of variety of universities; only a few of them have been presented at relevant conferences. Similar to most foreign studies, almost all of them are empirical studies, adopted Internet survey, content analysis, and other methods. College students are their main research objects. Researches mainly investigated in the use of Internet health information, the needs and contributing factors of Internet health information, the assessment of health websites, so on and so forth.

In Jiang's (1997) thesis *The Survey and Development Research of College Students' Health Message Demands on World Wide Web --A Case Study of NCTU Students*, on the basis of the needs of Internet health information among the NCTU

students, she found that male students with science and engineering education background, aged between seventeen and twenty eight have strong needs for Internet health information. In Huang's (2005) thesis *Use of Web Health Information among Taiwan College Student*, the author surveyed 789 undergraduate students at 12 academic institutions to examine their Internet use and found that nearly ninety percent of Taiwanese college students started to use Internet and had their own e-mails before they were senior high school students and the place where they often use Internet were at home (92%); the purposes for the Internet use is to search non-varsity work related information (60.9%).In Lin's (2005) thesis *The Consumer Health Information on Internet Use Research of College Students - A Case Study of Tamkang University*, first of all, the author discussed the services and contents of domestic health and medical websites in order to get a better understanding of health information websites nowadays. And then, through doing a questionnaire survey, researcher probes into domestic college students' usage behavior on Internet. At the end, in accordance with the research results, the author makes advice and draws a conclusion on future development and relevant organization for website organizers and associated societies.

Jue's (2000) thesis *The Exploratory Study on the Behavior of Health Website Users in Taiwan* provides a reference for health-related websites operators and policy makers through exploring the channels which Internet users use to seek health information, the current situation at that time about health-related website use, relevant factors of the reliability assessment for health-related websites, and the factors which have influences on the use of Internet users. By Internet survey, Zeng (1998) finds that 70 percent of the respondents have used health-related websites and their main purpose is to acquire health knowledge. Xie (1999) did a research on general populace and of in-patients about their health information needs and the results show that 60 percent of them have a strong need for health information seeking.

Therefore, the masses have a strong need for health information and eager to apply that information into their real life.

You (2001) applied health communication theory as well as uses and gratification theory along with other Internet researches and come up with a theoretical framework in order to analyze the uses and gratifications of Internet health information. The results of her research show that there are three main motives or needs for the use of Internet health information, which are personal mental motives (absorb information and prevention), social-related motives, and Internet characteristics motives (interactivity, database functionality, and instantaneity). In terms of gratifications, the gratifications experience is mostly come from Internet characteristics and just a little come from the content. Yang (2004) proposed in his thesis that there is a significant correlation between the frequency of use on checking health reports on Internet and the frequency of physical examinations and the degree of concerns on users' health conditions. In addition, there is a significant correlation between the degree of gratifications on using websites and the degree of richness in information, user experience (speed in particular), promotions, and places of using Internet.

In Yang's (2000) research *The Analysis of the Information for Health Care Choice on the Internet and a Survey on the Potential Users.* , she analyzed the content of health related websites and relevant information, and then did an online survey to further understand the actual needs of Internet users and gave a summary of the current situations at that time along with suggestions to the future policy makers.

Unfortunately, in mainland China, there are fewer researches on the uses and gratification of Internet health information. Up to now, on the base of two main data systems CNKI and Wan fang database in China, there is no any related papers can be found when search with the key words "health and uses and gratifications".

We can find from the above researches from home to abroad about the uses and gratifications of Internet health information that there are very few empirical studies

on the group of elderly people in such field. Hence, this paper is going to develop a theoretical analyze framework in accordance with the above researches for the Internet uses and gratifications for health information among the elder Chinese.

According to the previous studies, motives or needs and personal characteristics have impact on the media use, while at the meantime; motives or needs could also be affected by personal characteristics. On the basis of this framework, the author is going to discuss the research methodology in the next chapter.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Research Objects

On the basis of the natural cycles of life, the older we are, the much more likelihood of various kinds of diseases may occur on our health. Thus, health is one of the most concerns among the quinquagenarians and older people. Results supported by CNNIC (2014) showed there are 4.5% of total Chinese Internet users are those people aged over 50 years old, which means there are approximately 27 million Chinese Internet users are aged over 50 years old. As more and more quinquagenary and older Chinese joined in using Internet, the Internet itself has become one of those people's main ways of getting health information. For this reason, the research objects of this study are those Chinese Internet users age over 50 years old.

There are two kinds of situations of Internet health information uses; one is the Internet users directly get health information from the Internet, the other is the non-Internet users indirectly get health information from Internet while they do not use Internet themselves. Due to the limitation of this research, for the latter situation, it is too difficult to distinguish the Internet health information out of other sources. Therefore, the author is going to focus on just the former situation in this study. To sum up, the objects of this research are the Chinese Internet users whose age over 50 years old.

3.2 Research Hypotheses

In accordance with the literature review in the second chapter and the research purposes, depending on the current situation of the development of Internet health information, the author develops five research hypotheses as below to explore the relationship between the four variables which are characteristics of the Internet health information users, motives, use behavior, and degree of gratification:

H1: There are significant differences on motives in different demographic

characteristics and health conditions.

H2: There are significant differences on degree of gratifications in different demographic characteristics and health conditions.

H3: There are significant differences on use behaviors in different demographic characteristics and health condtions.

H4: Internet health information motives significantly affect use behaviors.

H5: There is a significant relevance between motives and degree of gratifications in using Internet health information.

3.3 Questionnaire Design and Data Collection

Quantitative research methodologies have always been used in the studies on the audiences of uses and gratifications theory. In this research, questionnaire survey has been used to get the data form the samples. The author develops the questionnaire on the basis of the traits of Internet health information as well as the previous studies abroad and at home.

The questionnaire in this research has been designed as semi-structured and it is consists of four sections. Section A is about the use of Internet and Internet health Information; section B is about the health condition of the respondents; section C is about the motives and gratifications of Internet health Information use; Section D which is the last section is the general information of the respondents. Details are elaborated as follow:

A. The use of Internet and Internet health Information：

This section has been divided into two parts, part one is about the general Internet use behavior which includes how many years, how often, and the place of using Internet; part two is about the use of internet health information which includes how long do you spend time on searching and browsing health information through Internet each time, what else channels do you often use to get health information, how do you get started when you are going to search health information on Internet, what

kinds of health-related websites you often go to, and how many websites you've visited for the last time you search/browse/use health information.

    B. The health condition of the respondents:

Six questions have been asked in this section which are what does health means to you, how do you feel about your health condition now, imagine how much chance are you in risk of being an illness in the next three months on the basis of your current health condition, are you serious about keeping healthy in your daily work, diet, and exercise, what reasons make you don't take much care of your health, and what kinds of health-related information you would like to pay attention.

    C. Motives and gratifications of Internet health information use:

Based on the researches of Snyder (2007), Que (2000), You (2001), Lin (2005), Huang (2005) and etc. and combined with the characteristics of healthcare-related websites and BBS, the author organized twenty-one options in the motives scale with the introduction of Likert scale as measurement. Respectively assign scores from one to five to "strong disagree", "disagree", "neither agree nor disagree", "agree" and "strongly agree". The higher score the respondents tick, the stronger motives they have.

Gratifications scale in correspondence with the motives scale by putting the phrases "enables me" and "can fulfill" in front to signify the gratification the respondents get. Also use Likert scale as measurement and respectively assign scores from one to five to "strong disagree", "disagree", "neither agree nor disagree", "agree" and "strongly agree". The higher score the respondents tick, the higher degree of gratifications they get.

    D. Demographic Characteristics

This section includes genders, ages, education status, occupations, and monthly income. Besides, living status and retired status are added to better understand the living condition of elder Chinese who use Internet health information.

The questionnaire had been put on sojump website and shared at wechat

platform from 6th to 20th April. There are 230 valid questionnaires which the respondents' age over 50 years old.

3.4 Conceptual Framework

Based on Palmgreen's (1985) general media model, the author develops the conceptual framework as below to elaborate the relationship among the variables:

Figure 3.4 Conceptual Framework

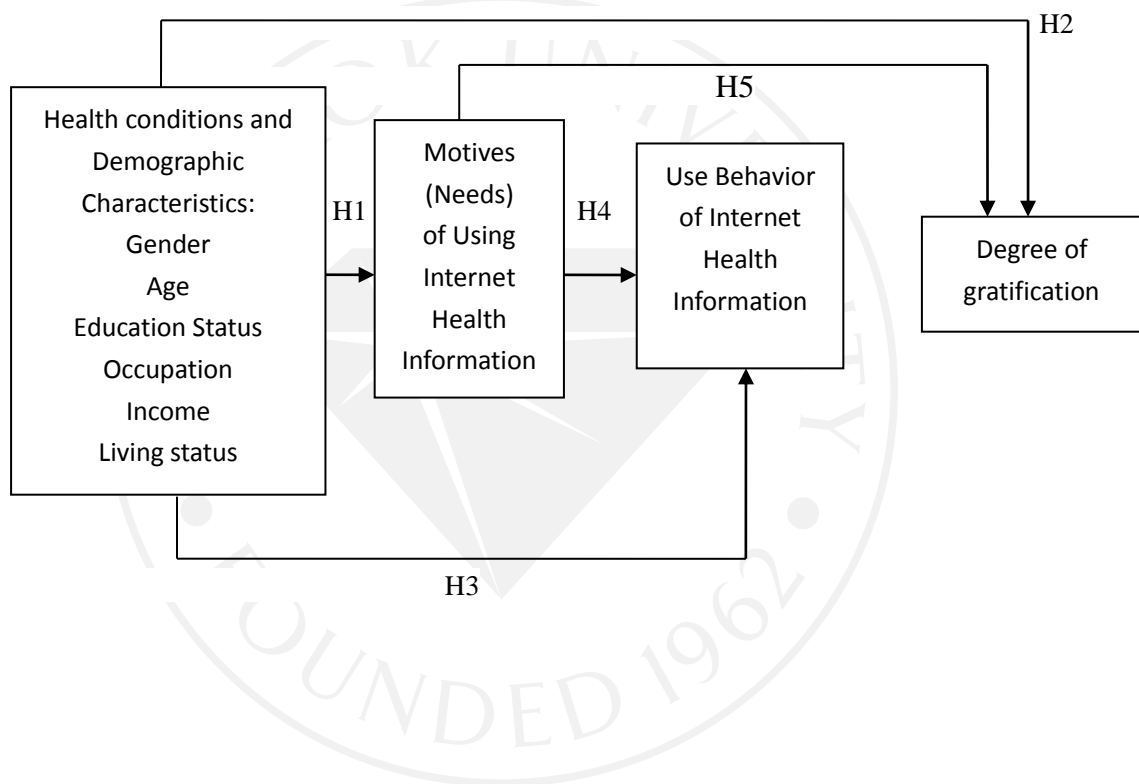
CHAPTER 4

RESEARCH RESULTS

4.1 Descriptive Statistics

4.1.1 Demographic Characteristics and Health Condition

4.1.1.1 Demographic characteristics

Table 4.1.1.1 Demographic Characteristics

Demographic Characteristics	Category	Frequency	Percentage
Gender	Male	150	65.22
	Female	80	34.78
Age	50-59 years old	194	84.35
	60-74 years old	36	15.65
Education Status	High school and below	35	15.22
	Junior college	60	26.09
	Bachelor and above	135	58.70
Occupation	Government functionary	40	17.39
	Ordinary clerk	26	11.30
	Educational researcher	58	25.22
	Cultural and sport personnel	12	5.22
	Medical institution staff	10	4.35
	Enterprise management	35	15.22
	private entrepreneur	15	6.52
	Freelance	16	6.96
	Others	8	3.48
	N/A	10	4.35
Monthly Income	1000 yuan or below	16	6.96

	1001 to 2000 yuan	60	26.09
	2001 to 3000 yuan	66	28.70
	3001 to 4000 yuan	46	20.00
	4001 yuan and above	30	13.04
	N/A	12	5.22
Living Status	Live alone	14	6.09
	Live with spouse	96	41.74
	Live with sons/daughters	22	9.57
	Live with spouse and sons/daughters	94	40.87
	N/A	4	1.74
Retired or Not	Yes	40	17.39
	No	176	76.52
	N/A	14	6.09

From the above table we can know that, most of the respondents are male and accounts for 65.22% while female respondents account for 34.78%. Most of the respondents are aged from 50 to 59 and it accounts for 84.35% in total. In terms of education status, there are 135 people hold bachelor degree or above which account for 58.70% while there are 60 respondents hold junior college degree which account for 26.09%. As for occupation, there are 65 respondents work as educational researchers, followed by government functionary. With regard to monthly income, 74.79% of the total respondents' monthly income is from 1001 to 4000; however 13.04% of the total respondents get higher income. For the living status, "live with spouse" and "live with spouse and sons/daughters" accounts for 82.58%. In the matter of retired or not, retired respondents only account for 17.39% while most of the respondents are still working which account for 76.52% in total.

4.1.1.2 Health conditions

Table 4.1.1.2 Health Conditions

Cognition and Attitudes towards Health	Category	Frequency	Percentage
What does health means to you?	Good health condition	208	90.40
	Good mentality	192	83.50
	Regular diet and exercise	160	69.60
	It doesn't matter to have some small ailments	32	13.90
How do you feel about your health condition now?	Very bad	6	2.17
	Bad	16	7.39
	Neither good nor bad	84	34.78
	Good	98	44.35
	Very good	22	9.57
	N/A	4	1.74
Imagine how much chance are you in risk of being an illness in the next three months?	Very little chance	72	30.43
	Little chance	96	42.61
	Not sure	46	21.74
	Large chance	8	1.74
	Very large chance	2	0.87
	N/A	6	2.61
Are you serious about keeping healthy?	Not at all	2	0.87
	Not very serious	20	4.35
	Fair	48	25.22
	Serious	128	51.30
	Very serious	28	16.52
	N/A	4	1.74
What reasons make you don't take much care of your health?	Lack of relevant guidance	2	9.1
	I have an excellent health	10	45.5
	Lack of time	8	36.4
	Lack of health information channels	0	0.00
	Others	2	9.1
What kinds of health-related information	Information about specific diseases	140	60.90
	Information about specific medical treatment or surgery	64	27.80

you would like to pay attention?	Information about experimental therapy or experimental drug	54	23.50
	Information about life cultivation and health preservation	162	70.40
	Information about prescription medicine and nonprescription drug	74	32.20
	Information about smoking/smoking cessation	70	30.40
	Information about mental health	88	38.30
	Information about sexual behavior/sexual health	66	28.70
	Information about specific doctors and hospitals	48	20.90
	Information about Medical insurance/medical aid/ health legislation	100	43.50
	Information about Health care products, medical devices, and their sales	48	20.90
	Information about Beauty and slimming	34	14.80

(1) What does health means to you?

There are 90.4% of the total respondents think that health means good health condition, followed by having a good mentality which account for 83.5%; only 13.9% of the respondents think it doesn't matter to have some small ailments. Therefore, we can know that most people think that "do not suffer any disease" can be considered as having a good health.

(2) How do you feel about your health condition now?

Over 50% of the respondents think they have a good or very good health condition; 34.78% of the respondents think their health condition neither good nor bad while there are only 22 persons think that they have a bad or very bad health condition which account for 9.56% of the total respondents.

(3) Imagine how much chance are you in risk of being an illness in the next three months?

73.04% of the total respondents believe that there is very little chance or little chance for them to get an illness in the next three months; 21.74% of the respondents are not sure about it; only 10 people think that they have a large chance or very large chance to get ill in the near future.

(4) Are you serious about keeping healthy?

67.82% of the total respondents serious or very serious about keeping health while there are only 5.22% of the respondents not very serious or not serious about keeping health at all.

To do further analysis on the 22 people who are not very serious or not serious about keeping health at all, we find that 45.5% of them believe that they have an excellent health and 36.4% of them say that they do not have enough time.

(5) What kinds of health-related information you would like to pay attention to?

The most concerned top three types of information are: Information about life cultivation and health preservation (70.4%), Information about specific diseases (60.9%), and Information about medical insurance/medical aid/ health legislation (43.5%). The least concerned health-related information are: Information about beauty and slimming (14.8%), Information about specific doctors and hospitals (20.9%), and Information about health care products, medical devices, and their sales (20.9%).

4.1.2 The use of Internet and Internet health Information

4.1.2.1 General Internet Use Behavior

Table 4.1.2.1 General Internet Use Behavior

General Internet Use Behavior	Category	Frequency	Percentage
How long have you been using Internet?	One year or below	17	7.39
	One year to two years	13	5.65
	Three years to four years	45	19.57
	More than five years	149	64.78

	N/A	6	2.61
How often do you use Internet?	Below once a week	13	5.65
	One to three times a week	13	5.65
	Four to six times a week	18	7.83
	Once a day or above	180	78.26
	N/A	6	2.61
Where do you usually use Internet?	Home	130	56.52
	Company	90	39.13
	Internet café	2	0.87
	Others	3	1.30
	N/A	5	2.17

In terms of the question "How long have you been using Internet", we can know from the research results that most of the respondents (84.35%) have been using Internet for over 3 years. In respect of the question "How often do you use Internet?", 78.26% of the total respondents use Internet at least once a day. For the question "Where do you usually use Internet?", 56.52% of the respondents use Internet at home, 39.13% of the respondent use Internet at their work place, only 2 people use Internet at Internet café.

4.1.2.2 The Use of Internet Health Information

Table 4.1.2.2 The Use of Internet Health Information

The Use of Internet Health Information	Category	Frequency	Percentage
How long do you spend time on searching and browsing health information through Internet each time?	Less than half an hour	105	45.65
	Half an hour to an hour	67	29.13
	One hour to two hours	29	12.61
	More than two hours	14	6.09
	N/A	13	5.65
How do you get started when you are going to search health information on	Started from search engines like Baidu.com or Google.com	170	73.91
	Directly go to specific health-related websites/pages/forums	116	50.43
	Click through website directory to	70	30.43

Internet?	health-related websites(hao123.com)		
	Click into health-related subpages of portal websites (sina.com/yahoo.com/souhu.com)	124	53.91
	Government owned health websites	73	31.74
	Hospital and medical research institutional websites	89	38.70
	Health care and medicine corporations websites	80	34.78
What kinds of health-related websites you often go to?	Health-related sub-sections of comprehensive websites	162	70.43
	Medical associations and health-related social organization websites	68	29.57
	Individual websites	26	11.30
	BBS and websites for middle aged and aged people	44	19.13
How many websites you've visited for the last time you search/browse/use health information?	One	35	15.22
	Two to three	105	45.65
	Four to five	38	16.52
	Six or above	27	11.74
	N/A	25	10.87

Among all the respondents, 45.65% of them spend less than half an hour on searching and browsing health information through Internet each time, 29.13% of them spend half an hour to an hour, 12.61% of them spend one hour to two hours. Most of the respondents started from search engines like Baidu.com or Google.com (73.91%), followed by clicking into health-related subpages of portal websites (sina.com/yahoo.com/souhu.com). Most of the respondents choose "Health-related sub-sections of comprehensive websites" as the health-related websites they often go to, followed by Hospital and medical research institutional websites (38.7%) and Health care and medicine corporations websites (34.78%). In terms of the question "How many websites you've visited for the last time you search/browse/use health information?", 45.65% of the total respondents visited two to three websites while 16.52% of the respondents visited four to five websites.

4.1.3 The Motives/Needs of Using Internet Health Information

There are twenty-one statements in the motives scale and the author uses Factor Analysis method for data reduction and summarization by identifying the latent variables. A factor is an underlying dimension that explains the correlation among a set of variables. As an extraction method, the researchers used the Principal Components method. In the second step, the factors are rotated to ease interpretation. Varimax is the rotation method used most frequently with survey data, because it is a method of orthogonal rotation, which tries to load a smaller number of variables highly onto each factor resulting in a more interpretable and more relevant factors (Field, 2005).

Before doing Factor Analysis, Kaiser-Meyer-Olkin (KMO) and Bartlett's Test have been introduced to examine the appropriateness of Factor Analysis; High values (between 0.5 and 1.0) indicate that the factor is relevant. Blow is the test results:

Table 4.1.3.1 KMO and Bartlett's Tests

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.750
Bartlett's Test of Sphericity	Approx. Chi-Square	875.446
	df	212
	Sig.	.000

From the above table, we find that KMO=.750, besides, the Bartlett's test p=.000 which means it is appropriate to do Factor Analysis.

After undergoing the Factor Analysis, using the Principal Component Analysis and the Varimax Rotation Method, three factors emerged and named respectively as "Information seeking motives", "Social-related motives", and "Internet Characteristics motive"; explanations of naming are listed as blow:

1. The first factor has been named *Information S eeking Motives*, which means the quinquagenary and older Chinese wants to acquire health-related information through health-related websites. It consists of ten items which are Prevention and

health care, Search health information for my family/friends, Acquire more health knowledge, Search health information for myself, Better understand my health conditions, Acquire health information quickly, Better understand the health conditions of my family/friends, Acquire information of some specific diseases, Acquire health information conveniently, and Self-diagnosis and self-medicate.

2. The second factor has been entitled *Social-related Motives*; it means the quinquagenary and older Chinese wants to interact with others in terms of health-related information via the Internet and also take the information they got as a reference to their real life decisions and behaviors. This factor is composed of seven items, which are Provide health information for others via Internet, Share health information with others via Internet, Make decisions if I need to go to medical institutions, Make decisions on choosing treatments, Seek for supports/make friends from/with other people who have the same diseases or health conditions, Directly consult doctors/health experts on health issues, and Make decisions if I need any medical products or drugs.

3. The final factor is entitled *Internet Characteristics Motives*, which means the quinquagenary and older Chinese wants to acquire information from Internet because of same certain characteristics of the Internet, for example anonymity. This factor concludes three items, which are Get health information anonymously, Know the information about Rx or OTC drugs, and Personal preference.

Table 4.1.3.2 Motives Factor Analysis

	Components		
	Information seeking Motives	Social-related Motives	Internet Characteristics Motives
Prevention and health care	0.604		
Search health information for my family/friends	0.463		

Acquire more health knowledge	0.499		
Search health information for myself	0.624		
Better understand my health conditions	0.613		
Acquire health information quickly	0.541		
Better understand the health conditions of my family/friends	0.597		
Acquire information of some specific diseases	0.513		
Acquire health information conveniently	0.572		
Self-diagnosis and self-medicate	0.471		
Provide health information for others via Internet		0.599	
Share health information with others via Internet		0.579	
Make decisions if I need to go to medical institutions		0.479	
Make decisions on choosing treatments		0.515	
Seek for supports/make friends from/with other people who have the same diseases or health conditions		0.649	
Directly consult doctors/health experts on health issues		0.683	

Make decisions if I need any medical products or drugs		0.631	
Get health information anonymously			0.557
Know the information about Rx or OTC drugs			0.469
Personal preference			0.521
Initial Eigenvalues	9.058	2.39	1.092
% of Variance	25.074	9.865	8.338
Cumulative %	25.074	34.939	43.277

To further compute the mean value of the total respondents under the three factors, we can see from the below table that the strongest motive is Information seeking Motives, followed by Internet Characteristics Motives, and then Social-related Motives.

Table 4.1.3.3 Motive Factors Mean Value

Factors	Mean Value	Ranking
Information seeking Motives	3.98	1
Internet Characteristics Motives	3.33	2
Social-related Motives	3.21	3

4.1.4 The Gratifications of Internet Health Information Use

There are twenty-one statements in the gratification scale. Same as the methods used in motives scale, the author uses Factor Analysis method for data reduction and summarization by identifying the latent variables. A factor is an underlying dimension that explains the correlation among a set of variables. As an extraction method, the researchers used the Principal Components method. In the second step, the factors are rotated to ease interpretation. Varimax is the rotation method used most frequently with survey data, because it is a method of orthogonal rotation, which tries to load a

smaller number of variables highly onto each factor resulting in a more interpretable and more relevant factors (Field, 2005).

Before doing Factor Analysis, Kaiser-Meyer-Olkin (KMO) and Bartlett's Test have been introduced to examine the appropriateness of Factor Analysis; High values (between 0.5 and 1.0) indicate that the factor is relevant. Blow is the test results:

Table 4.1.4.1 KMO and Bartlett's Tests

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.814
Bartlett's Test of Sphericity	Approx. Chi-Square	3292.75
	df	210
	Sig.	.000

From the above table, we find that KMO=.814, besides, the Bartlett's test p=.000 which means it is appropriate to do Factor Analysis.

After undergoing the Factor Analysis, using the Principal Component Analysis and the Varimax Rotation Method, three factors emerged and named respectively as "Information Gratifications", "Decision-supporting Gratifications", and "Communication Gratifications"; explanations of naming are listed as blow:

1. The first factor has been named *Information Gratifications*, which refers to that the quinquagenary and older Chinese can get health-related knowledge and information. It consists of nine items which are Enables me to acquire more health knowledge, Enables me to acquire information of some specific diseases, Enables me to search health information for myself, Enables me to better understand my health conditions, Enables me to take prevention and health care, Enables me to search health information for my family/friends, Enables me to acquire health information quickly, Enables me to better understand the health conditions of my family/friends, and Enables me to acquire health information conveniently.

2. The second factor has been entitled *Decision-supporting Gratifications*; it refers to that the Internet health information can help the quinquagenary and older Chinese to make decisions as well as support their behaviors upon the health-related

issues in their real life. This factor is composed of nine items, which are Enables me to seek for supports/make friends from/with other people who have the same diseases or health conditions, Enables me to make decisions if I need any medical products or drugs, Enables me to make decisions if I need to go to medical institutions, Enables me to make decisions on choosing treatments, Enables me to get health information anonymously, Can fulfill my personal preference, Enables me to directly consult doctors/health experts on health issues, Enables me to self-diagnosis and self-medicate, and Enables me to know the information about Rx or OTC drugs.

3. The final factor is entitled *Communication Gratifications*, which refers to that the quinquagenary and older Chinese can communicate and interact with others regarding to health-related knowledge and information. This factor concludes two items, which are Enables me to share health information with others via Internet and Enables me to provide health information for others via Internet.

Table 4.1.4.2 Gratifications Factor Analysis

	Components		
	Information Gratifications	Decision-supporting Gratifications	Communication Gratifications
Enables me to acquire more health knowledge	0.5		
Enables me to acquire information of some specific diseases	0.639		
Enables me to search health information for myself	0.536		
Enables me to better understand my health conditions	0.614		
Enables me to take	0.545		

prevention and health care			
Enables me to search health information for my family/friends	0.606		
Enables me to acquire health information quickly	0.604		
Enables me to better understand the health conditions of my family/friends	0.571		
Enables me to acquire health information conveniently	0.649		
Enables me to seek for supports/make friends from/with other people who have the same diseases or health conditions		0.62	
Enables me to make decisions if I need any medical products or drugs		0.436	
Enables me to make decisions if I need to go to medical institutions		0.564	
Enables me to make decisions on choosing treatments		0.619	
Enables me to get health information anonymously		0.489	
Can fulfill my personal preference		0.486	

Enables me to directly consult doctors/health experts on health issues		0.579	
Enables me to self-diagnosis and self-medicate		0.515	
Enables me to know the information about Rx or OTC drugs		0.626	
Enables me to share health information with others via Internet			0.46
Enables me to provide health information for others via Internet			0.614
Initial Eigenvalues	5.4	1.9	1.427
% of Variance	25.715	9.046	6.797
Cumulative %	25.715	34.761	41.558

To further compute the mean value of the total respondents under the three factors, we can see from the below table that the strongest degree of gratifications is Communication Gratifications, followed by Decision-supporting Gratifications, and then Information Gratifications.

Table 4.1.4.3 Gratification Factors Mean Value

Factors	Mean Value	Ranking
Communication Gratifications	3.54	1
Decision-supporting Gratifications	3.53	2
Information Gratifications	3.12	3

4.2 Hypotheses Testing

4.2.1 The Differences on Motives in Different Demographic Characteristics and Health Condition

4.2.1.1 Demographic Characteristics and Motives

1. Genders and Motives: the t-test table below shows that there are no significant differences between the genders and the motives.

Table 4.2.1.1 Genders and Motives t-test

Factors	t-Value	P Value
Information seeking Motives	0.407	0.689
Internet Characteristics Motives	0.49	0.656
Social-related Motives	0.256	0.898

2. Ages and Motives: the t-test table below shows that there are no significant differences between the genders and the motives.

Table 4.2.1.2 Ages and Motives t-test

Factors	t-Value	P Value
Information seeking Motives	0.349	0.589
Internet Characteristics Motives	0.176	0.956
Social-related Motives	0.588	0.498

3. Education Status and Motives: Levene's test has been used to test the homogeneity of variance, all the three factors are significant ($P>0.05$). Analyze the results from one-way ANOVA, we can see from the below table that there are significant differences ($P<0.05$) on Information seeking Motives in different education status, which means the intensity of motives vary to the different education status when the quinquagenary and older Chinese use Internet health information.

Table 4.2.1.3 Education Status and Motives one-way ANOVA

	Education Status	Mean	SD	F	P
Information seeking Motives	Senior high school and below	-0.288	1.11		

	Junior college	-0.312	1.23		
	Bachelor and above	0.245	0.98	4.45	0.015*
Social-related Motives	Senior high school and below	-0.006	0.87		
	Junior college	0.098	1.09		
	Bachelor and above	-0.045	0.86	0.2	0.91
Internet Characteristics Motives	Senior high school and below	-0.048	1.08		
	Junior college	0.035	1.11		
	Bachelor and above	0.037	1.06	0.085	0.976

* $p < 0.05$

4. Occupations and Motives: Levene's test has been used to test the homogeneity of variance, all the three factors are significant ($P > 0.05$). Analyze the results from one-way ANOVA, we can see from the below table that there are no significant differences ($P > 0.05$) on the Motives in different occupations.

Table 4.2.1.4 Occupations and Motives one-way ANOVA

Factors	F	P
Information seeking Motives	1.162	0.226
Social-related Motives	0.972	0.578
Internet Characteristics Motives	0.82	0.685

5. Monthly income and Motives: Levene's test has been used to test the homogeneity of variance, all the three factors are significant ($P > 0.05$). Analyze the results from one-way ANOVA, we can see from the below table that there are no significant differences ($P > 0.05$) on the Motives in different monthly income.

Table 4.2.1.5 Monthly Income and Motives one-way ANOVA

Factors	F	P
Information seeking Motives	0.667	0.678
Social-related Motives	0.956	0.409
Internet Characteristics Motives	0.578	0.788

6. Retired status and Motives: the t-test table below shows that there are no significant differences between the Retired status and the motives.

Table 4.2.1.6 Retired Status and Motives t-test

Factors	t-Value	P Value
Information seeking Motives	-0.494	0.786
Internet Characteristics Motives	0.677	0.584
Social-related Motives	-0.021	0.976

7. Living status and Motives: Levene's test has been used to test the homogeneity of variance, all the three factors are significant (P＞0.05). Analyze the results from one-way ANOVA, we can see from the below table that there are no significant differences (P＞0.05) on the Motives in different living status.

Table 4.2.1.7 Living Status and Motives one-way ANOVA

Factors	F	P
Information seeking Motives	1.335	0.278
Social-related Motives	0.956	0.467
Internet Characteristics Motives	1.367	0.265

4.2.1.2 Health Conditions and Motives

Pearson product-moment correlation method has been used to analyze the relevancy between health condition and motives. The results in the below table demonstrates that there is a positive correlation between "How do you feel about your health condition" and "Information seeking Motives" as well as "Are you serious about keeping healthy" and "Information seeking Motives", which means that the better health condition the respondents think they have, or the much more concerns

the respondents have on their health; the stronger motives they have to acquire health Information by using Internet. The result also indicates that there is a negative correlation between "Imagine how much chance are you in risk of being an illness in the next three months" and "Information seeking Motives", which means that the higher risk the respondents think they have; the weaker motives they have to acquire health Information by using Internet. However, there are no significant correlations among health condition, Social-related Motives, and Internet Characteristics Motives.

Table 4-2-1-8 Health Conditions and Motives Pearson product-moment correlation

		Information Acquisition Motives	Social-related Motives	Internet Characteristics Motives
How do you feel about your health condition	PCC	0.335	0.086	-0.114
	P	0.000**	0.193	0.086
Imagine how much chance are you in risk of being an illness in the next three months	PCC	-0.254	0.063	0.098
			0.346	0.183
	P	0.004**		
Are you serious about keeping healthy	PCC	0.449	-0.109	0.093
			0.096	0.246
	P	0.000**		

**p＜0.01

4.2.2 The Differences on Gratifications in Different Demographic Characteristics and Health Condition

4.2.2.1 Demographic Characteristics and Gratifications

1. Genders and Gratifications: the t-test table below shows that there are no significant differences between the genders and the gratifications.

Table 4.2.2.1 Genders and Gratifications t-test

Factors	t-Value	P Value
Information Gratifications	0.466	0.698
Decision-supporting Gratifications	0.465	0.695
Communication	0.266	0.834

Gratifications			

2. Ages and Gratifications: the t-test table below shows that there are no significant differences between the genders and the gratifications.

Table 4.2.2.2 Ages and Gratifications t-test

	Age	Mean	SD	t	P
Information Gratifications	50-59	-0.265	1.17		
	60-74	-0.324	1.29	0.45	0.915
Decision-supporting Gratifications	50-59	-0.006	0.84		
	60-74	0.043	1.03	0.276	0.918
Communication Gratifications	50-59	-0.066	1.05		
	60-74	0.077	1.18	0.088	0.943

3. Education status and Gratifications: Levene's test has been used to test the homogeneity of variance, all the three factors are significant ($P > 0.05$). Analyze the results from one-way ANOVA, we can see from the below table that there are significant differences ($P < 0.05$) on Information Gratifications in different education status, which means the degree of gratifications vary to the different education status when the quinquagenary and older Chinese use Internet health information.

Table 4.2.2.3 Education Status and Gratifications one-way ANOVA

	Education Status	Mean	SD	F	P
Information Gratifications	Senior high school and below	-0.222	1.45		
	Junior college	-0.343	1.66		
	Bachelor and above	0.244	0.44	4.48	0.013*
Decision-supporting Gratifications	Senior high school and below	-0.033	0.73		
	Junior college	0.044	1.23		
	Bachelor and above	-0.077	0.44	0.57	0.576

Communication Gratifications	Senior high school and below	-0.065	1.23		
	Junior college	0.055	1.97		
	Bachelor and above	0.099	1.36	0.087	0.944

<div align="center">* p＜0.05</div>

4. Occupation and Gratifications: Levene's test has been used to test the homogeneity of variance, all the factors except Decision-supporting Gratifications (P=0.05) are significant (P＞0.05). Analyze the results from one-way ANOVA, we can see from the below table that there are no significant differences (P＞0.05) on the Gratifications in different occupations.

<div align="center">Table 4.2.2.4 Occupations and Gratifications one-way ANOVA</div>

Factors	F	P
Information Gratifications	0.566	0.798
Communication Gratifications	0.665	0.655

5. Monthly income and Gratifications: Levene's test has been used to test the homogeneity of variance, all the factors except Information Gratifications (P=0.001) are significant (P＞0.05). Analyze the results from one-way ANOVA, we can see from the below table that there are no significant differences (P＞0.05) on the Gratifications in different monthly income.

<div align="center">Table 4.2.2.5 Monthly income and Gratifications one-way ANOVA</div>

Factors	F	P
Decision-supporting Gratifications	0.226	0.928
Communication Gratifications	0.895	0.515

6. Retired status and Gratifications: the t-test table below shows that there are no significant differences between the Retired status and the motives.

<div align="center">Table 4.2.2.6 Retired status and Gratifications t-test</div>

Factors	t-Value	P Value
Information Gratifications	0.266	0.843
Decision-supporting Gratifications	0.665	0.664
Communication Gratifications	0.926	0.533

7. Living status and Gratifications: Levene's test has been used to test the homogeneity of variance, all the three factors are significant (P＞0.05). Analyze the results from one-way ANOVA, we can see from the below table that there are no significant differences (P＞0.05) on the Gratifications in different living status.

Table 4.2.2.7 Living status and Gratifications one-way ANOVA

Factors	F	P
Information Gratifications	0.835	0.453
Decision-supporting Gratifications	0.445	0.764
Communication Gratifications	1.426	0.233

4.2.2.2 Health Conditions and Gratifications

Pearson product-moment correlation method has been used to analyze the relevancy between health condition and gratifications. The results in the below table demonstrates that there is a positive correlation between "How do you feel about your health condition" and "Information Gratifications" as well as "Are you serious about keeping healthy" and "Information Gratifications", which means that the better health condition the respondents think they have, or the much more concerns the respondents have on their health; the higher degree of Information gratifications they get from the Internet. The result also indicates that there is a negative correlation between "Imagine how much chance are you in risk of being an illness in the next three months" and "Information Gratifications", which means that the higher risk the respondents think they have; the lower degree of Information Gratifications they get

from the Internet. However, there are no significant correlations among health condition, Decision-supporting Gratifications, and Communication Gratifications.

Table 4.2.2.8 health conditions and Gratifications Pearson product-moment correlation

		Information Gratifications	Decision-supporting Gratifications	Communication Gratifications
How do you feel about your health condition	PCC	0.235	0.143	-0.019
	P	0.023*	0.109	0.896
Imagine how much chance are you in risk of being an illness in the next three months	PCC	-0.222	0.019	-0.029
	P	0.026*	0.898	0.389
Are you serious about keeping healthy	PCC	0.249	0.019	-0.071
	P	0.018*	0.833	0.609

* $p < 0.05$

4.2.3 The Differences on Internet Use Behaviors in Different Demographic Characteristics and Health Condition

The Chi-square test results in the below tables manifest that there are significant differences on the "amount of visited health-related websites" in different ages (table 4-2-3-2); there are significant differences on "length of using Internet" and "frequency of using Internet" in different education status (4-2-3-3); there are significant differences on the "frequency of using Internet" in different occupations (table 4-2-3-4); there are significant differences on the "frequency of using Internet" in different monthly income (table 4-2-3-5); there are significant differences on "length of using Internet" and "frequency of using Internet" in different retirement status (table 4-2-3-6); there are significant differences on "length of using Internet", "frequency of using Internet", and the "amount of visited health-related websites" in

different living status (table 4-2-3-7); there are significant differences on the "length of using Internet" in different self-evaluation of health status (table 4-2-3-8); there are significant differences on "daily timing of using Internet health information" and the "frequency of using Internet" in different "risk assessment of being ill" (table 4-2-3-9); and there are significant differences on "length of using Internet" and "frequency of using Internet" in different concerns of health (table 4-2-3-10).

Table 4.2.3.1 Genders and Internet Use Behaviors

Internet Use Behaviors	X^2	P
length of using Internet	5.222	0.156
frequency of using Internet	1.545	0.567
daily timing of using Internet health information	5.332	0.167
amount of visited health-related websites	2.578	0.489

Table 4.2.3.2 Ages and Internet Use Behaviors

Internet Use Behaviors	X^2	P
length of using Internet	1.678	0.578
frequency of using Internet	2.556	0.421
daily timing of using Internet health information	5.553	0.117
amount of visited health-related websites	8.335	0.037*

$* p < 0.05$

Table 4.2.3.3 Education Status and Internet Use Behaviors

Internet Use Behaviors	X^2	P
length of using Internet	21.976	0.002**
frequency of using Internet	25.567	0.000**
daily timing of using Internet health information	1.566	0.954
amount of visited health-related websites	11.634	0.103

$**p < 0.01$

Table 4.2.3.4 Occupations and Internet Use Behaviors

Internet Use Behaviors	X^2	P
length of using Internet	35.876	0.065
frequency of using Internet	32.987	0.01*
daily timing of using Internet health information	33.977	0.082

Internet Use Behaviors	X^2	P
amount of visited health-related websites	10.873	0.972

<center>* p＜0.05</center>

Table 4.2.3.5 Monthly Income and Internet Use Behaviors

Internet Use Behaviors	X^2	P
length of using Internet	25.887	0.064
frequency of using Internet	31.876	0.018*
daily timing of using Internet health information	17.733	0.236
amount of visited health-related websites	21.833	0.133

<center>* p＜0.05</center>

Table 4.2.3.6 Retirement Status and Internet Use Behaviors

Internet Use Behaviors	X^2	P
length of using Internet	9.222	0.029*
frequency of using Internet	19.344	0.000**
daily timing of using Internet health information	1.508	0.611
amount of visited health-related websites	4.982	0.198

<center>**p＜0.01 , * p＜0.05</center>

Table 4.2.3.7 Living Status and Internet Use Behaviors

Internet Use Behaviors	X^2	P
length of using Internet	18.332	0.017*
frequency of using Internet	20.072	0.013*
daily timing of using Internet health information	13.987	0.192
amount of visited health-related websites	17.093	0.031*

<center>* p＜0.05</center>

Table 4.2.3.8 Self-evaluation of Health Status and Internet Use Behaviors

Internet Use Behaviors	X^2	P
length of using Internet	27.865	0.009**
frequency of using Internet	16.865	0.18
daily timing of using Internet health information	14.662	0.239
amount of visited health-related websites	11.976	0.419

<center>**p＜0.01</center>

Table 4.2.3.9 Risk Assessment of Being Ill and Internet Use Behaviors

Internet Use Behaviors	X^2	P
length of using Internet	18.862	0.076
frequency of using Internet	37.975	0.000**
daily timing of using Internet health information	25.965	0.018*
amount of visited health-related websites	18.972	0.076

**p＜0.01 , * p＜0.05

Table 4.2.3.10 Concerns of Health and Internet Use Behaviors

Internet Use Behaviors	X^2	P
length of using Internet	33.972	0.000**
frequency of using Internet	30.752	0.000**
daily timing of using Internet health information	17.976	0. 187
amount of visited health-related websites	21.976	0.075

**p＜0.01

4.2.4 The Relationship between Internet Health Information Motives and Use Behaviors

The results of Pearson product-moment correlation method in the below table demonstrates that there is a positive correlation between Information seeking motives and timing of using Internet health information every time, which means that the higher intensity of information seeking motives the respondents have, the more time they spent on using Internet health information every time.

Table 4.2.4 Motives and Use Behaviors Pearson product-moment correlation

		Timing of using Internet health information every time	Amount of visited health-related websites
Information Seeking Motives	PCC	0.231	-0.076
	P	0.028*	0.502
Social-related Motives	PCC	0.039	-0.029
	P	0.689	0.798
Internet Characteristics Motives	PCC	0.001	0.081
	P	0.991	0.419

* p＜0.05

4.2.5 The Relationship between Internet Health Information Motives and Gratifications

The results of Pearson product-moment correlation method in the below table indicates that there is a positive correlation between Information seeking motives and Information gratifications, which means that the stronger intensity of information seeking motives the respondents have, the higher degree of information gratifications they get.

There are positive correlations between "social-related motives" and "Decision-supporting gratifications" as well as "Internet characteristics motives" and "Decision-supporting gratifications", which means that the stronger motives the respondents have in communicating health information with others through Internet, or the stronger motives the respondents have in utilizing the Internet characteristics such as anonymity to get health information, the higher degree of gratifications they get in supporting their health-related behaviors.

There is a positive correlation between social-related motives and communication gratifications, which means that the stronger motives the respondents have in communicating health information with others through Internet, the higher degree of communication gratifications they get.

Table 4.2.5 Motives and Gratifications Pearson product-moment correlation

		Information Gratifications	Decision-supporting Gratifications	Communication Gratifications
Information Seeking Motives	PCC	0.866	0.087	0.046
	P	0.000**	0.511	0.681
Social-related Motives	PCC	0.029	0.399	0.681
	P	0.765	0.000**	0.000**
Internet Characteristics Motives	PCC	-0.019	0.578	0.061
	P	0.897	0.000**	0.498

**p＜0.01

CHAPTER 5

CONCLUSIONS, LIMITATIONS AND SUGGESTIONS

5.1 Research Findings and Discussions

5.1.1 Research Findings

5.1.1.1 Demographic Characteristics and Health Conditions

Among all the 230 respondents of this research, male respondents account for 65.22% while female respondents account for 34.78%; most of the respondents are aged from 50 to 59 and they account for 84.35% in total; there are 135 people hold bachelor degree or above which account for 58.70%; as for occupation, there are 65 respondents work as educational researchers; 74.79% of the total respondents' monthly income range from 1001 to 4000; for the living status, "live with spouse" accounts for 41.74%; most of the respondents are still working which account for 76.52% in total.

Thus it can be seen that the quinquagenary and older Chinese Internet health information users are mainly males with high academic qualifications, steady job and most of them have not retired yet. All of these prerequisites allow them to relatively freely get access to Internet. Due to their age, they are in the period of time that health has been highly concerned so that they may more frequently in using Internet health information compares to the other age groups.

In terms of health conditions, there are 90.4% of the total respondents think that health means good health condition and over 50% of the respondents think they have a good or very good health condition; 73.04% of the total respondents believe that there is very little chance or little chance for them to get an illness in the next three months, which means that people have a relatively positive evaluation about their health; 67.82% of the total respondents serious or very serious about keeping health, it indicates that most of the respondents maintains a keen concern on their health.

In the respect of health information, the top three concerned types of health information are: Information about life cultivation and health preservation (70.4%),

Information about specific diseases (60.9%), and Information about medical insurance/medical aid/ health legislation (43.5%), which can be understood as that due to their health condition, in the daily life of quinquagenary and older Chinese, they have got more concerns on preventing diseases, seeking information on common diseases and getting access to medical security.

5.1.1.2 The Use of Internet and Internet Health Information

In terms of general Internet use behavior, the results show that most of the respondents (84.35%) have been using Internet for over 3 years; 78.26% of the total respondents use Internet at least once a day which means most of the quinquagenary and older Chinese Internet users use Internet frequently; 56.52% of the respondents use Internet at home which means that the high penetration of computer and Internet access in China allows the quinquagenary and older Chinese to use Internet conveniently.

Among all the 230 respondents, 45.65% of them spend less than half an hour on searching and browsing health information through Internet each time; Most of the respondents started from search engines like Baidu.com or Google.com (73.91%); most of the respondents choose "Health-related sub-sections of comprehensive websites" as the health-related websites they often go to (70.43%); 45.65% of the total respondents visited two to three websites for the latest time they search/browse/use health information. From the above findings, we can know that, because that the Internet is filled with a variety of different content, the health information as one of them, has not been attached particular importance by the quinquagenary and older Chinese so that they spend not too much time on it. Also, "Health-related sub-sections of comprehensive websites" becomes the type of health-related websites the respondents often go to indicates that those specialized health-related websites are fail to gain the popularity and royalty and still need to improve their fame among the quinquagenary and older Chinese Internet users.

5.1.1.3 The Differences on Motives in Different Demographic Characteristics and Health Conditions

In terms of the differences on motives in different demographic characteristics, there is no significant difference except education status. While for health conditions, the research findings demonstrate that there is a positive correlation between "How do you feel about your health condition" and "Information Seeking Motives" as well as "Are you serious about keeping healthy" and "Information Seeking Motives", which means that the better health condition the respondents think they have, or the much more concerns the respondents have on their health; the stronger motives they have to acquire health Information by using Internet. The result also indicates that there is a negative correlation between "Imagine how much chance are you in risk of being an illness in the next three months" and "Information Seeking Motives", which means that the higher risk the respondents think they have; the weaker motives they have to acquire health Information by using Internet. However, there are no significant correlations among health condition, Social-related Motives, and Internet Characteristics Motives. Therefore, H1 is partially supported.

5.1.1.4 The Differences on Gratifications in Different Demographic Characteristics and Health Conditions

In terms of the differences on motives in different demographic characteristics, there is no significant difference except education status. While for health conditions, the results demonstrate that there is a positive correlation between "How do you feel about your health condition" and "Information Gratifications" as well as "Are you serious about keeping healthy" and "Information Gratifications", which means that the better health condition the respondents think they have, or the much more concerns the respondents have on their health; the higher degree of Information gratifications they get from the Internet. The result also indicates that there is a negative correlation between "Imagine how much chance are you in risk of being an illness in the next three months" and "Information Gratifications", which means that

the higher risk the respondents think they have; the lower degree of Information Gratifications they get from the Internet. However, there are no significant correlations among health condition, Decision-supporting Gratifications, and Communication Gratifications. Therefore, H2 is partially supported.

5.1.1.5 The Differences on Internet Use Behaviors in Different Demographic Characteristics and Health Conditions

The Chi-square test results manifest that there are significant differences on the "amount of visited health-related websites" in different ages; there are significant differences on "length of using Internet" and "frequency of using Internet" in different education status; there are significant differences on the "frequency of using Internet" in different occupations; there are significant differences on the "frequency of using Internet" in different monthly income; there are significant differences on "length of using Internet" and "frequency of using Internet" in different retirement status; there are significant differences on "length of using Internet", "frequency of using Internet", and the "amount of visited health-related websites" in different living status; there are significant differences on the "length of using Internet" in different self-evaluation of health status; there are significant differences on "daily timing of using Internet health information" and the "frequency of using Internet" in different "risk assessment of being ill"; and there are significant differences on "length of using Internet" and "frequency of using Internet" in different concerns of health. Therefore, H3 is partially supported.

5.1.1.6 The Relevancy between Internet Health Information Motives and Use Behaviors

The results of Pearson product-moment correlation method demonstrates that there is a positive correlation between Information Seeking motives and timing of using Internet health information every time, which means that the higher intensity of Information Seeking motives the respondents have, the more time they spent on using Internet health information every time. Therefore, H4 is partially supported.

5.1.1.7 The Relevancy between Internet Health Information Motives and Gratifications

After undergoing the Factor Analysis, using the Principal Component Analysis and the Varimax Rotation Method, three factors emerged and named respectively as "Information seeking motives", "Social-related motives", and "Internet Characteristics motive". To further compute the mean value of the total respondents under the three factors, we find that the strongest motive is Information seeking Motives, followed by Internet Characteristics Motives, and then Social-related Motives.

After undergoing the Factor Analysis, using the Principal Component Analysis and the Varimax Rotation Method, three factors emerged and named respectively as "Information Gratifications", "Decision-supporting Gratifications", and "Communication Gratifications". To further compute the mean value of the total respondents under the three factors, we can see from the below table that the strongest degree of gratifications is Communication Gratifications, followed by Decision-supporting Gratifications, and then Information Gratifications.

The results of Pearson product-moment correlation method indicates that there is a positive correlation between Information seeking motives and Information gratifications, which means that the stronger intensity of information seeking motives the respondents have, the higher degree of information gratifications they get.

There are positive correlations between "social-related motives" and "Decision-supporting gratifications" as well as "Internet characteristics motives" and "Decision-supporting gratifications", which means that the stronger motives the respondents have in communicating health information with others through Internet, or the stronger motives the respondents have in utilizing the Internet characteristics such as anonymity to get health information, the higher degree of gratifications they get in supporting their health-related behaviors.

There is a positive correlation between social-related motives and communication gratifications, which means that the stronger motives the respondents have in communicating health information with others through Internet, the higher degree of communication gratifications they get.

Therefore, H5 is partially supported.

5.1.2 Discussions

With the popularity of the Internet, more and more middle-aged and elderly Chinese use Internet to search information. Health-related websites and pages is one of the channels for the quinquagenary and older Chinese to acquire health information. Due to their physical and mental situations, the quinquagenary and older Chinese become increasingly care about their health conditions. At the meantime, as its peculiarity, Internet is more convenient, interactive, and affluent in Information seeking compares to the traditional channels. The middle-aged and elderly Chinese can easily get access to the health-related information they want as well as giving references to their family members and friends. The health-related information is used for preventing from being illnesses as per the Information about life cultivation and health preservation and the Information about specific diseases are their most concerned health-related information.

Despite Internet provides abundant health-related information, the accuracy of those information still needs to be carefully verified. Thus, the inaccurate information would definitely drop the gratifications of the users. With regard to the health-related information providing websites, providing authoritative and accurate information will surely gain the reliance from the users. Regarding to the government, it's very necessary to establish a more effective review mechanism in order to distinguish false from genuine so that the mendacious information could be stopped from being spread into the public.

5.2 Limitations and Suggestions

The limitations are listed as below:

1. Based on Uses and Gratification theory, many variables would affect the gratifications, here in this research, the author only covered demographic characteristics, health conditions, motives, and use behaviors. In fact, there are many other various can be further discussed.

2. Due to the limited time, manpower, and material resources, this research only covered 230 respondents and focused only on the quinquagenary and older Chinese Internet users.

   According to the above limitations, the suggestions are listed as below:

1. Future researchers can expand their studies on other variables which may affect the gratifications as well.

2. With the growing awareness of healthy living, future researchers can extend their studies to other groups of age and people.
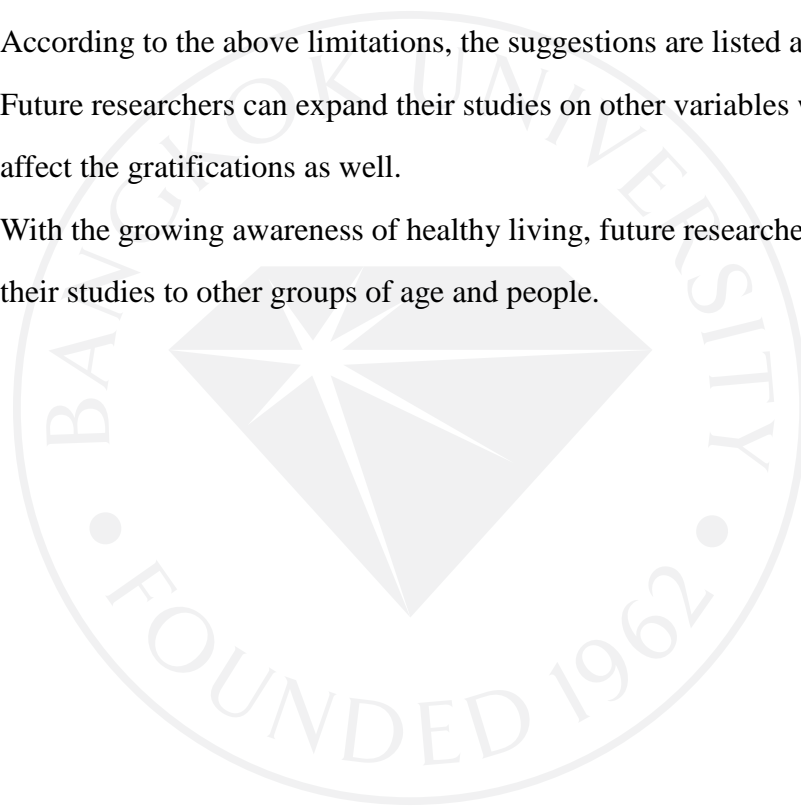
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APPENDIX
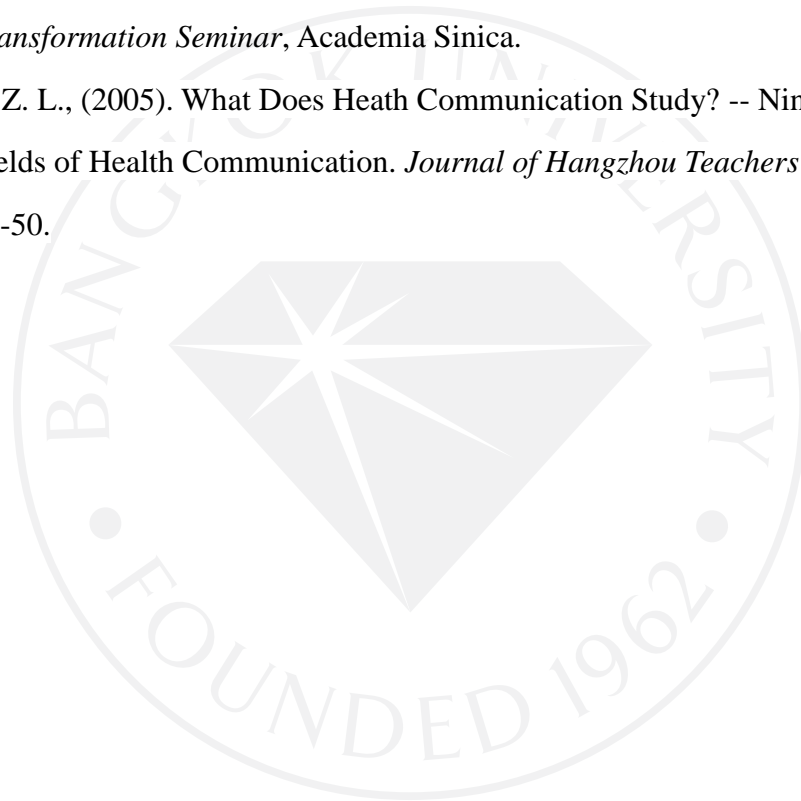
QUESTIONNAIRE

A   The Use of Internet and Internet Health Information

QA_1   How long have you been using Internet? (only one choice)

1. More than five years   2. Three years to four years   3. One year to Two years

4.   Six months to one year 5. Three months to six months 6. Less than three months

QA_2   How often do you use Internet? (only one choice)

1. Once a day or above 2. Four to six times a week   3. Two to Three times a week

4.   Once a week   5. Once a month   6. Less than one time a month

QA_3   Where do you usually use Internet? (only one choice)

1.   Home   2. Company   3. Internet café

4.   Café/Tea house   5. Relative's   or friends' home   6. Others (please specify___)

QA_4   How long do you spend time on searching and browsing health information through Internet each time?

1. More than two hours   2. One hour to two hours 3. Half an hour to an hour

4.   Less than half an hour   5. Never use Internet (skip to D1)

QA_5   What other channels do you often use to get health information? (you can choose more than one)

1. Newspapers, magazines, and other print media   2. Television

3.   Radio broadcasting 4.   Relatives and friends   5. Community health centers

6.   Health-related VCD/DVD   7. Health-related professional books

8.   Brochures and posters of medical institutions   9. Medical professionals

(doctors)

10.   Others (please specify_____)

QA_6   How do you get started when you are going to search health information on Internet?

   1.   Started from search engines like Baidu.com or Google.com

   2.   Directly go to specific health-related websites/pages/forums

   3.   Click through website directory to health-related websites(hao123.com)

   4.   Click into health-related subpages of portal websites
       (sina.com/yahoo.com/souhu.com)

   5.   Others (please specify_____)

QA_7   What kinds of health-related websites you often go to? (you can choose more than one)

   1.   Government owned health websites

   2.   Hospital and medical research institutional websites

   3.   Health care and medicine corporations websites

   4.   Health-related sub-sections of comprehensive websites

   5.   Medical associations and health-related social organization websites

   6.   Individual websites

   7.   BBS and websites for middle aged and aged people

   8.   Others (please specify_____)

QA_8   How many websites you've visited for the last time you search/browse/use health information?

   1.   Twenty or more   2. Six to ten   3. Four to five   4. Two to three

   5.   One   6. Cannot remember

B   Health Conditions

QB_1   What does health means to you?

   1.   Good health condition   2. Good mentality   3. Regular diet and exercise

4.   It doesn't matter to have some small ailments

QB_2   How do you feel about your health condition now?

1. Very bad   2. Bad   3. Neither good nor bad   4. Good   5. Very good

QB_3   Imagine how much chance are you in risk of being an illness in the next three months on the basis of your current health condition?

1.   Very little chance   2. Little chance   3. Not sure   4. Large chance

5.   Very large chance

QB_4   Are you serious about keeping healthy in your daily work, diet, and exercise?

1. Not at all   2. Not very serious   3. Fair   4. Serious   5. Very serious

QB_5   What reasons make you don't take much care of your health?

1. Lack of relevant guidance   2. I have an excellent health   3. Lack of time

4.   Lack of health information channels   5. Others (please specify___)

QB_6   What kinds of health-related information you would like to pay attention? (you can choose more than one)

1. Information about specific diseases (cancer, diabetes, heart diseases, arthritis, hypercholesterolemia and etc.)

2. Information about specific medical treatment or surgery

3. Information about experimental therapy or experimental drug

4. Information about life cultivation and health preservation (diet, nutrition, dietary supplements, exercise, and traditional Chinese medical health preservation)

5. Information about prescription medicine and nonprescription drug

6. Information about smoking/smoking cessation

7. Information about mental health (depression and dysphoria)

8. Information about sexual behavior/sexual health

9. Information about specific doctors and hospitals

10. Information about Medical insurance/medical aid/ health legislation

11. Information about Health care products, medical devices, and their sales.

12. Information about Beauty and slimming

13. Others (please specify_____)

14. Never pay attention to health-related information

C   Motives and Gratifications of Internet Health Information Use

QC_1   According to yourself, how much do you agree or disagree of the following statements about purposes for Internet health information use/search/browse?

(Assessment scale: 1. Strongly disagree 2. Disagree 3. Neither agree nor disagree 4. Agree 5. Strongly agree)

	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
I use Internet health information in order to:					
1. acquire more health knowledge	1	2	3	4	5
2. acquire information of some specific diseases	1	2	3	4	5
3. search health information for myself	1	2	3	4	5
4. search health information for my family/friends	1	2	3	4	5
5. provide health information for others via Internet	1	2	3	4	5
6. share health information with others via Internet	1	2	3	4	5
7. make decisions if I need to go to medical	1	2	3	4	5

institutions					
8. make decisions on choosing treatments	1	2	3	4	5
9. make decisions if I need any medical products or drugs	1	2	3	4	5
10. self-diagnosis and self-medicate	1	2	3	4	5
11. prevention and health care	1	2	3	4	5
12. better understand my health conditions	1	2	3	4	5
13. better understand the health conditions of my family/friends	1	2	3	4	5
14. know the information about Rx or OTC drugs	1	2	3	4	5
15. get health information anonymously	1	2	3	4	5
16. seek for supports/make friends from/with other people who have the same diseases or health conditions	1	2	3	4	5
17. directly consult doctors/health experts on health issues	1	2	3	4	5
18. the reliability of traditional information channels is very low	1	2	3	4	5
19. acquire health information conveniently	1	2	3	4	5
20. acquire health information quickly	1	2	3	4	5
21. personal preference	1	2	3	4	5

QC_2 Why do you use Internet health information? (optional)

_____

QC_3 According to yourself, how much do you agree or disagree of the following statements about gratifications after using/searching/browsing Internet health information?

(Assessment scale: 1. Strongly disagree 2. Disagree 3. Neither agree nor disagree 4. Agree 5. Strongly agree)

	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
The gratifications I get after using Internet health information:					
1. enables me to acquire more health knowledge	1	2	3	4	5
2. enables me to acquire information of some specific diseases	1	2	3	4	5
3. enables me to search health information for myself	1	2	3	4	5
4. enables me to search health information for my family/friends	1	2	3	4	5
5. enables me to provide health information for others via Internet	1	2	3	4	5
6. enables me to share health information with others via Internet	1	2	3	4	5
7. enables me to make decisions if I need to go to medical institutions	1	2	3	4	5
8. enables me to make decisions on choosing treatments	1	2	3	4	5
9. enables me to make decisions if I need any medical products or drugs	1	2	3	4	5
10. enables me to self-diagnosis and self-medicate	1	2	3	4	5

11. enables me to take preventions and health care	1	2	3	4	5
12. enables me to better understand my health conditions	1	2	3	4	5
13. enables me to better understand the health conditions of my family/friends	1	2	3	4	5
14. enables me to know the information about Rx or OTC drugs	1	2	3	4	5
15. enables me to get health information anonymously	1	2	3	4	5
16. enables me seek for supports/make friends from/with other people who have the same diseases or health conditions	1	2	3	4	5
17. enables me to directly consult doctors/health experts on health issues	1	2	3	4	5
18. the reliability of traditional information channels is very low	1	2	3	4	5
19. enables me to acquire health information conveniently	1	2	3	4	5
20. enables me to acquire health information quickly	1	2	3	4	5
21.can fulfil my personal preference	1	2	3	4	5

QC_4   What other gratifications did you get after using Internet health information? (optional)

_____

___

D   General Information

D1   Gender

   1. Male   2. Female

D2   Year of birth _____

D3   Living status

   1. Live alone   2. Live with spouse   3. Live with sons/daughters

   4.   Live with relatives/friends   5. Live in nursing institutions

   6.   Live with spouse and sons/daughters   7. Others

D4   Education status

   1. Junior high school or below   2.   Senior high school/Technical secondary school

   3.   Junior college   4. Bechalor   5. Master or above

D5   Monthly income (including pension and child support)

   1. 1000 yuan or below   2. 1001 to 2000 yuan   3. 2001 to 3000 yuan

   4.   3001 to 4000 yuan   5. 4001 to 5000 yuan   6. 5000 yuan or above

D6   Are you retired?

   1.   Yes   2. No

D7   What do you do? (Current job or job before retired)

   1. Government functionary   2. Ordinary clerk   3. Educational researcher

   4.   Cultural and sport personnel   5. Medical institution staff   6. Enterprise management

   7.   Worker or service staff   8.   Police or army man   9. private entrepreneur

   10.   Freelance   11. Farmer or redundant   12. Others (please specify___)

Thank you for you cooperation!!

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