

WECHAT USES AND GRATIFICATIONS FOR HEALTH INFORMATION AMONG
CHINESE ELDERLY USERS



WECHAT USES AND GRATIFICATIONS FOR HEALTH INFORMATION AMONG
CHINESE ELDERLY USERS

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The Relationships Among Chinese Elderly WeChat Users in Gratification Sought, Gratification Obtained, Relational Satisfaction toward the Small Group Communication in WeChat Health Communication. (187 pp.)

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ABSTRACT

The study aims to examine the use of WeChat and the gratifications of the Chinese elderly. Two-hundred Chinese respondents who were current WeChat users and were current subscribing WeChat health information have participated in this survey. The participants were being selected using convenience sampling. The mean, standard deviation, and percentage were being tabulated and analyzed using One-way ANOVA, Multiple Regression, and Spearman Rank's Correlation with the significance level of .05 and 0.10. The findings as following:

1. Chinese elderly who have different frequency of using WeChat health information and educational background had significant different gratification sought about health information via WeChat, but those with different gender, age, personal income per month and stickiness to WeChat health information did not have significant different gratification sought about health information via WeChat.

2. Chinese elderly who have different age and frequency of using WeChat health information had significant different gratification obtained about health information via WeChat, but those who have different gender, personal income per month educational background and stickiness to WeChat health information had no significant different gratification obtained about health information via WeChat.

3. Gratification sought and gratification obtained for health information via WeChat among Chinese elderly were not positively correlated.

4. Gratification sought for WeChat health information are significant predictors of the relational satisfaction of small group communication in WeChat; however, gratification obtained for WeChat health information was not significant predictor of Chinese elderly's relational satisfaction of small group communication in WeChat.

Keywords: WeChat, Uses and Gratifications, Health Information, Chinese Elderly

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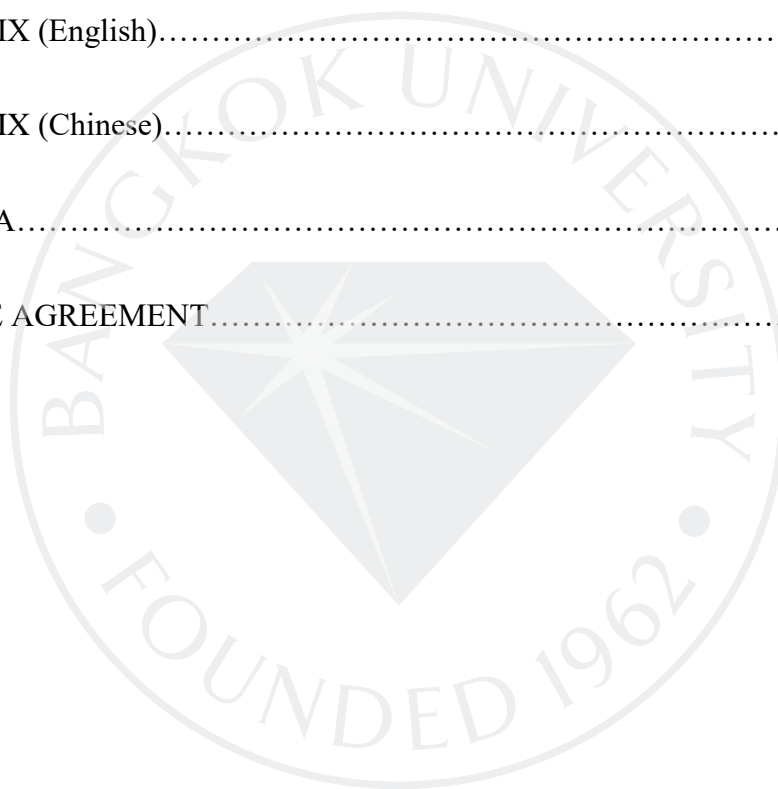
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CHAPTER 1

INTRODUCTION

Chapter 1 presented an introduction to the study. The introduction of this study is divided in six parts as follows:

1.1 Rationale and Problem Statement

1.2 Objectives of the Study

1.3 Scope of the Study

1.4 Research Questions

1.5 Significance of the Study

1.6 Definition of Term

1.1 Rationale and Problem Statement

In recent years, with Internet era coming to our daily life inevitably, many Internet-related software and apps are emerging, and WeChat is the predominant one. 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.

The Internet brings the innovation of human culture under the background of global information—network culture. Network culture is based on the traditional culture as its derivative, development and conflict, which has various influence on contemporary people's ideological values. More importantly, Chinese elderly is a large and non-negligible group of users in the modern Internet era.

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 Amanda, Jones, & Macgill's research (2008), 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 showed 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 certify that the absolute number of the Chinese Internet users of health information should also be a large amount. In recent time, the amounts 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 showed in the CNNIC report (2014 cited in China Internet Network Information Center, 2017) 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 (2016), 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 people's 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 researcher of this paper chooses Internet health information as the research topic.

With the rapid expanding of Internet, people's 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 Chinese 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 the Chinese elderly.

Generally speaking, WeChat has many basic functions, such as send hold-to-talk voice messages, text messages, pictures and videos. WeChat supports Wi-Fi and 3G data network. And it supports mainland China, Hong Kong, Macau, Taiwan, Japan and US phone numbers. WeChat has speakerphone: gently press the button to speak, and the other party will be able to receive the voice after the button released. WeChat supports group-chat up to 20 people. What's more, WeChat has many other attractive functions. The most attractive function is searching people around you. WeChat can search people near you who has WeChat base on your own location. This function can make user to know people around you and then to build a new relationship. WeChat also supports sending videos. It is quite convenient to shoot a video and send it to the other party immediately. The compressed video is also suitable for transmission in mobile network. You can always share the wonderful pieces of life with other people at any time. WeChat also has "drift bottle" function. By this function, you can share messages to the world anonymously and make new friends. Besides, WeChat has voice notes function. This function can not only save your voice memo, but also keep your pictures and texts in a convenient way. WeChat can help you to catch your messages and keep you always updated. WeChat has QQ mail notifications which can alert you when new mails come to

your QQ mailbox and you can read the mails right away. It supports sending and receiving messages from Tencent micro blog. Moreover, English language edition is also available in WeChat. It can clear away the basic obstacle for foreigners to get access to it. Furthermore, it can help the company to manage the market efficiently outside of China in a broader sense.

On November 19, 2017, Tencent officially released the latest "2017 WeChat data report." According to data released by Tencent (2017), WeChat has become the most popular and influential chat software in China. As of September 2017, WeChat has more than 900 million registered users per day and 17 percent growth in 2016, among which 50 million are elderly users. In addition to interpersonal communication, information sharing and communication is also one of the important purposes for people to use WeChat. WeChat little program is now covers more than 20 categories, industry of fine classification more than 200, including monthly access to the largest number of industry categories are transportation, electric business platform, tools, service life and IT technology. According to a survey conducted by Tencent in 2017, the number of health information types in the WeChat reading statistics is 210 million, and the number of readers is second. In the ranking of WeChat public number posts, the top five were emotional information, health care, political and legal news, disease pathology and cooking. In its use of the WeChat public number, Tencent found that the public number of health information has a large number of fans, among which the elderly users are the main audience. WeChat has gradually become an indispensable part of the daily life of the elderly in China.

Furthermore, the process to send a message is simple. Open audio function and speak what you want to say to your friend. Then send the audio document to your friends. Your friends can receive your audio messages. Open it then your friends can hear your recording. This model can make two people talk with each other in different places and at different time. What's more, the Tencent Technology Company updates the current version every fifteen days, which ensures new functions for each version. Fortunately, there are many other functions of WeChat that will be created in the future.

The internet and social media provide people with a range of benefits, and opportunities to empower themselves in a variety of ways. People can maintain social connections and support networks that otherwise wouldn't be possible and can access more information than ever before. The communities and social interactions people form online can be invaluable for bolstering and developing people's self-confidence and social skills (Al-Menayes, 2015).

With the tentacles of the Internet reaching into every field and every corner, society has entered the information age. WeChat, which was launched in 2011, has absorbed a large number of users within a short period of time, and has unconsciously reshaped social interactions (Xu, 2015). Internet network information center (CNNIC) in the 39th "China Internet development statistics report" in 2016, over the age of 50 Internet users account for 9.4% of the total number of Internet users, 0.2% increase from 2015. Internet and related application further permeate the life of old people.

With the continuous improvement of the quality of life, more and more elderly people in China actively learn to use WeChat in the process of social development. This is not only related to their well-being, but also to the future development of relevant industries. China's research on the Internet use of the elderly began around 1998, and the research on WeChat began in 2013. Now, there are some media started on this phenomenon were investigated and reported, but only stay in describing the phenomenon level, academic circles at present also lack for the elderly to use WeChat exist in the process of in-depth study. CNKI (China National Knowledge Infrastructure) is an authoritative academic website in China. In CNKI, there are only five research papers on the Chinese elderly WeChat use behavior. There are seven other papers on how to use WeChat to provide better services for China's elderly. And there are 2,971 research papers on the relationship between other social groups and WeChat use behavior. The theoretical significance of this study is that, from the perspective of communication studies, the Chinese elderly WeChat use behavior and preferences, motivation and satisfaction were analyzed, and increase the academic study of elderly group WeChat use. The real meaning is to reshape the social role of the elderly in the new media environment. Meanwhile, the market for the elderly in China has not yet been fully developed. The elderly market is becoming a bigger stage for the development of the Internet and smart terminal industries. Relevant Chinese enterprises can seize market opportunities to further develop and provide more convenience for elderly Chinese Internet users.

1.2 Objectives of the Study

Based on the Uses and Gratifications Theory, the focus of this study is to examine the use of WeChat and the gratifications of the Chinese elderly. For the sake of providing references to relevant departments so that they can be able to better serve and educate Chinese elderly on health issues. This research is going to delve 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 more specific, the research purposes and objectives of this study can be listed as follows:

1.2.1 To examine how differences in demographics characteristics and health conditions influence gratification sought of using Internet health information among the Chinese elderly via WeChat

1.2.2 To examine how differences in demographics characteristics and health conditions influence gratification obtained of using Internet health information among the Chinese elderly via WeChat

1.2.3 To examine the correlation between the gratification sought and gratification obtained among Chinese elderly via WeChat

1.2.4 To examine whether gratification sought and gratification obtained of using Internet health information among the Chinese elderly via WeChat are the significant predictors of their satisfaction toward their health.

1.3 Scope of Study

WeChat has become one of the main channels for people to obtain information related to health because of the rapid development of WeChat in China. Because of its convenience and interactivity, WeChat gets a lot of older users.

In this paper, under the framework of health communication and in accordance with Uses and Gratifications theory, the researcher takes WeChat health information as the context and probes into the relevancy among the three variables of the 200 respondents, which include their uses of WeChat health information, and their gratifications sought and gratification obtained among the older Chinese WeChat users.

The surveys were used in this research to analyze the WeChat health information usage and gratifications among the older Chinese WeChat users as well as giving references to the future studies on health communication in China.

Therefore, the researcher is going to focus on just the former situation in this study. To sum up, the sample of the survey will be the Chinese WeChat users whose age 55-70 years old. On WeChat official website, WeChat technology product department released the "2017 WeChat life report." In this report, WeChat users are divided into three categories: the users born after 1995, typical users and elderly users. Among them, typical users refer to users who account for 65% of monthly active users and 80% of the total number of daily messages sent, while the majority of users who meet these two conditions are the generation after 80s and 90s. As defined in the report, WeChat elderly users refer to WeChat users aged 55-70 years old.

The samples were selected using convenience sampling from different regions of Shanghai, China. Shanghai first entered the aging society in 1979. By the end of 2010, the number of registered residents in Shanghai was 14.1232 million, and the registered elderly population aged 60 years and above had reached 3.3102 million, accounting for 23.4 percent of the total population. They have the ability to independently use WeChat function and have some understanding and contact with WeChat health information.

1.4 Research Questions

The research examined four variables, which are characteristics of the WeChat health information users, motives, use behavior, and degree of gratification. According to the purposes of study and the scope of this study, the following research questions are formulated:

RQ1: How do Chinese elderly users with different demographic and health conditions use WeChat to get health information in their daily lives?

RQ2: How do Chinese elderly users with different demographic characteristics and health conditions exposed to different health information through WeChat?

RQ3: Are there a positive correlation between gratification sought and gratification obtained for health information via WeChat among Chinese elderly users?

RQ4: Are the gratifications sought about health information via WeChat and gratification obtained about health information via WeChat among Chinese elderly users significant predictors of their satisfaction toward their health?

1.5 Significance of the Study

This study provides significant values to the communication discipline as follows:

1. This study tries to enrich the current studies of WeChat health communication in China to provide additional insights into Internet health communication researches in particular. Nowadays, there are few researches on the perspective of WeChat health communication in China. Therefore, through this study, the researcher attempts to heighten the research and development of the WeChat health communication in China.
2. Chinese elderly is an essential group of users who are closely attached to the WeChat. But usually people tend to neglect them and exclude them from the frequent WeChat users. This research will highlight what motives of Chinese elderly and whether using WeChat gratify their needs for health internet or not based on the uses and gratifications.
3. Communication practitioners and media planners can the research findings to plan the digital communication strategy on health information to reach the Chinese elderly and other elderly group in various countries.

1.6 Definitions of Terms

1.6.1 Health information

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.

1.6.2 Internet Health Information refers to 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 (Lv,1998).

1.6.3 WeChat refers to a free application that Tencent launched on January 21, 2011, to provide instant messaging services for smart terminals. WeChat supports the rapid delivery of free voice SMS, video, images and text via the network. At the same time, WeChat can also be used by sharing data streaming media content and location based social plugins "shake", "message in a bottle", "moments", "subscription" services such as plug-ins.

1.6.4 WeChat Chinese elderly users are WeChat elderly users in China as 55-70-year-old WeChat users.

1.6.5 Uses and gratifications refers to an audience-centered approach to mass communication, which holds that understanding why people use media helps explain media choices and consequences.

1.6.6 Gratification sought (GS) refers to motives for media exposure and are based on expectations about media content. Palmgreen, Wenner, and Rayburn (1980) developed two 15-item scales. The items measured five GS dimensions: general information seeking, decisional utility, entertainment, interpersonal utility, and parasocial interaction.

1.6.7 Gratification obtained (GO) refers to perceived personal outcomes, which are media content and feedback to influence content expectations. Palmgreen, Wenner, and Rayburn (1980) developed two 15-item scales. The items measured five GO dimensions: general information seeking, decisional utility, entertainment, interpersonal utility, and parasocial interaction.

1.6.8 Gratification sought of WeChat Chinese elderly users refers to the expected or sought of the elderly to media start from their physiological and psychological characteristics. Due to the deterioration of physiological functions of the elderly, their senses such as vision and hearing have become sluggish, so the elderly's demand for media is that they hope to communicate with the use of mobile application software with a concise and clear interface. WeChat has a simple and clear interface design, which is favored by the elderly in China. In addition, WeChat can set the brightness of the chat background, and it has the function of voice chat and video chat,

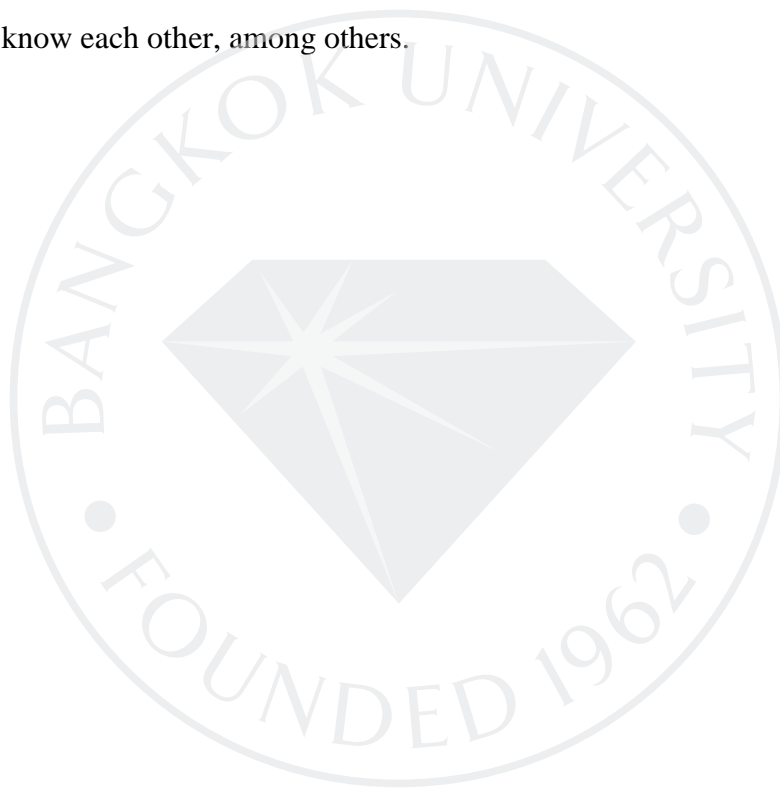
which meets the needs of voice input of the Chinese elderly, with simple operation and easy to learn. The psychological negative emotions of the elderly groups in China can be alleviated through the help of family members and the daily WeChat interaction between family members and the elderly groups, which is conducive to the healthy life of the elderly (Zhao, 2017).

1.6.9 Gratification obtained of WeChat Chinese elderly users: Use and gratification influence of motivation, preference and social or psychological factors. Because the elderly fall in learning ability, memory and other natural flaws, make the fast rhythm of life children hard to teach old people to use WeChat patiently, so some young people are supposed to be like parents raised by our feedback the elderly, to let them in later life still can feel the love and care. Now there are still some Chinese old people learn how to use WeChat actively, most of them are for the residents of the economically developed areas of China, has a certain level of education and economy foundation, the pursuit of spiritual comfort, have access to information, to communicate with people's needs. WeChat's voice and video chat function provide great convenience for the elderly group to contact their relatives and friends, which is easy to accept and use, and the elderly group gradually becomes stable users (Ma, 2016).

1.6.10 Satisfaction to health refers to how much people feel about their needs or expectations for health that have been met. It includes not only the actual health condition, but also the psychological experience of the actual health condition. It includes physical satisfaction, psychological satisfaction and social adaptability satisfaction (Wang, Li & Wang, 2009).

1.6.11 Relational satisfaction was defined as “the building and maintaining of member relationships during communicative processes and practices throughout the life span of the group” (Anderson, Martin, & Riddle, 2001).

1.6.12 Relational satisfaction in small groups was characterized by feelings of affection, inclusion, liking, trust, friendship, freedom to communicate, involvement, and getting to know each other, among others.



CHAPTER 2

LITERATURE REVIEW

Chapter 2 summarizes past studies related to Uses and Gratification of Internet Health Information, the definition of health information and internet health information, and assumption of Uses and Gratification Theory. The topics will be summarized as follows:

- 2.1 Related past studies in Uses and Gratifications in Internet Health Communication
- 2.2 Concepts of Uses and Gratifications Theory and Related Theory
- 2.3 Definition of Health Information
- 2.4 Internet Health Information
- 2.5 Concepts of Health Communication
- 2.6 Theories, Research orientations and Approaches of Health Communication
- 2.7 The Impact of New Media on Health Communication
- 2.8 WeChat and Its Propagation Characteristics
- 2.9 The Impact of WeChat on Health Communication

2.10 Concept and assumption of Relational Satisfaction in Small Group

Communication

2.11 Theoretical Framework

2.12 Research Hypothesis

2.1 Related past studies in Uses and Gratifications in Internet Health

Communication

During the 1970s, traditional media such as the television, newspaper and others sources were examined for their relationship of usage with consumers' satisfaction. The uses and gratifications theory (UGT), originated by Katz in 1970 (cited in Katz, Blumler, & Gurevitch, 1974), stated that people seek out the specific content from each media outlet in order to satisfy a particular need. In this theoretical perspective, Katz, Blumler and Gurevitch (1974) employed UGT to determine whether audiences are active and energetic, and whether they seek out media to support their personal needs. This theory has since been used widely within both qualitative and quantitative questionnaires to observe individual characteristics of media users. Previous research has examined relationships between demographics, media usage, and the levels of individual need, motivation, and gratification. The components of the uses and gratifications model are these four specific areas: 1) audience activity; 2) needs gratification; 3) choice of media; and, 4) value judgments (Katz, Blumler, & Gurevitch, 1974). This theory helps to examine how the use of media sources has changed with advanced and sophisticated

technological developments. The Uses and Gratifications Theory invites one to ask, “What motives do working people who use social media have which are similar to - or different from - their motives to use other traditional media - such as the television, printed materials, and others sources?”

Blumer and Katz’s theory seeks to reach an understanding of what the audience does for the media, not what the media does for the audience. Their theory also explained that audiences generally tend to dictate on how they will benefit through what they are purchasing, and whether consumption will fulfill their needs. This approach suggests that people use the media to fulfill specific gratifications.

Uses and Gratifications Theory is an extension of the Needs and Motivation Theory developed by Maslow (1998). Maslow argued that people actively seek to satisfy a hierarchy of needs. Once the goals of one level of hierarchy are achieved, people will progress onto the next level. For example, when a person’s primary survival needs of food, water, and shelter are met, they then seek to achieve the next level of need for security and property. The audience is active and its use of media is goal-oriented in a similar way. UGT defines the media usage motives of people in both positive and negative ways (Katz, Blumler, & Gurevitch, 1974).

In response to some unflattering depictions of typical audience members as being lazy and controlled by the media, Katz, Blumler, and Gurevitch (1974) presented a systematic and comprehensive articulation of audience members’ roles within mass communication processes. Uses and Gratifications Theory argues that people actively

seek out specific media and specific content to obtain specific gratifications or results. This theory views people as being active because they are able to examine and evaluate various types of media when seeking to accomplish specific communication goals. Instead of asking, “What does the media do to people?” Uses and Gratification researchers ask, “What do people do with the media itself?”

In previous studies that have examined the use of different media and the gratifications sought from the media, there are eight widely applied assumptions that have become accepted, based on previous research results (McQuail, Blumler, & Brown, 1972; Rosengren & Windahl, 1972; Katz, Gurvitch, & Hass, 1973):

1. The audience is active;
2. The media sources used can be conceived of as being goal directed;
3. Each medium competes with other sources of need satisfaction;
4. Major audiences link their needs to a media choice;
5. Media consumption can fulfill gratifications;
6. Media content cannot be used to predict patterns of gratification accurately;
7. Each medium can be gratified in different time frames;
8. Gratifications obtained can have their origins in exposure to media content, in and of itself.

People are often found to possess enough self-awareness of their own media use, interests, and motives, which allows them to be able to provide researchers with an accurate picture of what media they use, and why they use it (West & Turner, 2010).

Many researchers (Leung & Wei, 2000; Lucas & Sherry, 2004; Sherry, Lucas, Greenberg, & Lachlan, 2006) have argued that the future will determine and change the way people watch television, and use media resources in general. Researchers have applied UGT to a variety of new media. Leung and Wei (2000) examined the use and gratifications of the cellular phone. They found that young women who had less education tended to talk longer on their cellular phones. Sherry, Lucas, Greenberg, and Lachlan (2006) examined the use and gratifications of video games. The research results found that such games satisfied several motivations for their respondents including these aspects: challenge, arousal, diversion, fantasy, competition, and social interaction. The social interaction finding is particularly noteworthy, given the regular belief, assumption and perception that these media applications tend to isolate individuals who live in solitude, when their only perception of the 'reality' of friends is who they meet as an Avatar on the game playing websites.

Social media is the center of everything for many people. It is not a passive media outlet, as the TV or a newspaper is. It can spread out the news or build social interaction in society. Social media is very different from traditional media (Alejandro, 2010). Social media was found to be a far more useful tool than the traditional media in a political election. It can deliver the mainstream news as quickly as the traditional media system, such as newspapers did, but at a far more instant and immediate strike, rather waiting for

the newspaper to be printed overnight and then sold the next morning (Alejandro, 2010; Sauter, 2013)

Kaye and Johnson (2004) argue that the growth of the internet has created a resurgence of interest in uses and gratifications, as researchers look at why people use this popular new medium resource. In their own research, Dimmick, Chen, and Li (2004) found that, although the Internet is indeed a new medium, it does, in fact, overlap the more traditional media forms in terms of uses and gratifications. For example, Sherry and Lucas (2004) found that assessing the uses and gratifications enabled researchers to understand the differences between young adult men and women on how and why they used video games. The research results found that men were more likely to be key game players, generally enthusiastic about game playing, and playing for longer hours; whereas women played far fewer games, for a much lesser time scale (Lucas & Sherry, 2004). Papacharissi and Rubin (2000) found that people who felt valued often used the Internet for information gathering, while those who felt less secure tended to use the Internet primarily for social motives.

Applying the Uses and Gratifications Theory to social media use is necessary in mass communications research. Some research has been performed in relation to the uses and gratifications of Facebook, MySpace, YouTube and Twitter. The factors of the model in relation to social media use were confirmed by research undertaken by Eastin (2002), Park, Kee and Valenzuela (2009). Park et al. (2009) found that the major uses and gratification factors of social media users were based on socializing, entertainment, self-

status seeking, and obtaining information. LaRose and Eastin (2004) found similar factors, such as a need for information, seeking entertainment, and reaching social needs.

Johnson and Yang (2009) found that the major gratifications sought and obtained by Twitter users were based on social and informational motives. Social motives include having fun, being entertained, relaxing, seeing what others people are doing, passing time, freely expressing one's self, keeping in touch with friends and family, ease of communication, and the convenience offered by simultaneously communicating with many people. Information motives include obtaining and sharing information (facts, links, news, knowledge, and ideas), giving or receiving advice, learning interesting things, and meeting new people. These factors can be used to construct a theoretical framework for social media usage on Twitter, which is primarily used as an information source; it is a means to share information. Active Twitter users seem to use technology to gratify information needs, to the same extent as they would use, or have used, the traditional mass media (Johnson & Yang, 2009).

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 researcher 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.

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.

Amanda (2000) found 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. Consequently, the 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.

Dorothy (2007) conducted 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.

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.

Unfortunately, in mainland China, there are fewer researches on the uses and gratification of WeChat health information among Chinese elderly. Up to now, in the major domestic databases Wan fang, no related papers can be found when searching with the key words "WeChat health information, Chinese elderly and uses and gratifications." CNKI (national knowledge infrastructure in China) is an authoritative academic website in China. At present, in CNKI, there are only 5 research papers on WeChat using behavior of Chinese elderly people. There are only a dozen research papers on the common theme "WeChat" and "health information". There are also seven papers on how

to use WeChat to provide better service for the Chinese elderly. In addition to this, there are 2,971 papers that research the use of WeChat for other social groups in China. We can conclude from the above researches from home and abroad about the uses and gratifications of WeChat health information that there are very few empirical studies concentrating on the group of Chinese elderly in relevant fields. Hence, this paper is going to forge ahead a theoretical analysis framework in accordance with the above researches for the WeChat uses and gratifications for health information among Chinese elderly.

2.2 Concepts of Uses and Gratifications Theory and Related Theory

Uses and Gratifications Theory is a popular approach to understanding mass communication. The theory places more focus on the consumer, or audience, instead of the actual message itself by asking “what people do with media” rather than “what media does to people” (Katz, 1959). It assumes members of the audience are not passive but take an active role in interpreting and integrating media into their own lives. The theory also holds audiences responsible for choosing media to meet its needs. The approach suggests that people use the media to fulfill specific gratifications. This theory would then imply that the media compete against other information sources for the viewer’s gratification. (Katz, Blumler, & Gurevitch, 1974).

There are three main paradigms in media effects: hypodermic needle (i.e., direct, or strong effects), limited effects, and the powerful to limited effects. "Uses and

Gratifications" falls under the second paradigm which reached its apex around 1940-1960, when studies helped realize that the first paradigm was inaccurate.

The Uses and Gratifications Theory follows a basic model. It is an audience-centered approach. When an audience actively seeks out media, they are typically seeking it in order to gratify a need. For example, in social situations, people may feel more confident and knowledgeable when they have specific facts and stories from media to add to conversation. By seeking out media, a person fulfills a need to be informed.

Social situations and psychological characteristics motivate the need for media, which motivates certain expectations of that media. This expectation leads one to be exposed to media that would seemingly fit expectations, leading to an ultimate gratification. The media dependency theory has also been explored as an extension to the uses and gratifications approach to media, though there is a subtle difference between the two theories. People's dependency on media proves audience goals to be the origin of the dependency while the uses and gratifications approach focuses more on audience needs (Grant, 1998). Still, both theories agree that media use can lead to media dependency (Rubin, 1982).

The media dependency theory states that the more dependent an individual is on the media for to fulfill needs, the more significant the media becomes to that person. DeFleur and Ball-Rokeach (1976, cited in Littlejohn, 1978) illustrated dependency as the relationship between media content, the nature of society, and the behavior of audiences. Littlejohn (1978) also explained that people will become more dependent on media that

meet a number of their needs than on media that touch only a few ones. Dependency on a certain medium is influenced by the number sources open to an individual. Individuals are usually more dependent on available media if their access to media alternatives is limited. The more alternatives there are for an individual, the lesser is the dependency on and influence of a specific medium.

The hypodermic needle model claims that consumers are strongly affected by media and have no say in how the media influences them. The main idea of the Uses and Gratifications model is that people are not helpless victims of all-powerful media, but use media to fulfill their various needs. These needs serve as motivations for using media.

Beginning in the 1940s, researchers began seeing patterns under the perspective of the uses and gratifications theory in radio listeners. Early research was concerned with topics such as children's use of comics and the absence of newspapers during a newspaper strike (Infante, Rancer, & Womack, 1993). An interest in more psychological interpretations also emerged during this time. In 1974, Katz, Blumler and Gurevitch realized that most Uses and Gratification studies were most concerned with the following issues:

“The social and psychological origins of needs which generate expectations of mass media or other sources, which lead to differential patterns of media exposure (or engagement in other activities), resulting in need gratifications and other consequences, perhaps mostly unintended ones” (Katz, Blumler, & Gurevitch, 1974)

It has not been done for these reasons. The notion of active audience has conflated an extraordinary range of meanings, including utility, intentionality, selectivity and imperviousness to influence as follows:

- (1) Utility—Mass communication has uses to people.
- (2) Intentionality—Media consumption is directed by prior motivation.
- (3) Selectivity—Media behavior reflects prior interests and preferences.
- (4) Imperviousness—The lessened ability of media to influence an obstinate audience.

Lasswell (1948, cited in Blumler, 1979) introduced a four-functional interpretation of the media on a macro-sociological level. Media served the functions of surveillance, correlation, entertainment and cultural transmission for both society and individuals.

In 1972, Blumler and Brown (cited in Blumler, 1979) extended Lasswell's (1948, cited in Blumler, 1979) four groups 25 years later. The four primary factors for using the media included:

- (1) Diversion—Escape from routine and problems; an emotional release.
- (2) Personal Relationships—Social utility of information in conversation; substitution of media for companionship.
- (3) Personal Identity or Individual Psychology—Value reinforcement or reassurance; self-understanding, reality exploration.

(4) Surveillance—Information about factors which might affect one or will help one do or accomplish something (Severin & Tankard, 1997).

In 1973 study, Katz, Gurevitch and Haas (cited in Katz, Blumler, & Gurevitch, 1974) saw the mass media as a means by which individuals connect or disconnect themselves with others. They developed 35 needs taken from the largely speculative literature on the social and psychological functions of the mass media and put them into five categories:

- (1) Cognitive needs—Acquiring information, knowledge and understanding.
- (2) Affective needs—Emotion, pleasure, feelings.
- (3) Personal integrative needs—Credibility, stability, status.
- (4) Social integrative needs—Family and friends.
- (5) Tension release needs—Escape and diversion.

Many people have criticized this theory as they believe the public has no control over the media and what it produces. It can also be said to be too kind to the media, as they are being 'let off the hook' and do not need to take responsibility for what they produce. "The nature of the theory underlying Uses and Gratifications research is not totally clear" (Blumler, 1979). This makes the line between gratification and satisfaction blurred calling into question if we only seek what we desire or actually enjoy it (Palmgreen, & Rayburn, 1985b). "Practitioners of Uses and Gratifications research have been criticized for a formidable array of shortcomings in their outlook -- they are taxed

for being crassly atheoretical, perversely eclectic, ensnared in the pitfalls of functionalism and for flirting with the positions at odds with their functionalist origins" (Blumler, 1979).

Uses and gratifications (U&G) is an audience-centered approach to mass communication, which holds that understanding why people use media helps explain media choices and consequences. According to this approach, gratifications sought (GS) represent motives for media exposure and are based on expectations about media content. Gratifications obtained (GO), on the other hand, are perceived personal outcomes, they are, therefore, sensitive to media content and feedback to influence content expectations (Palmgreen, Wenner, & Rayburn, 1980). Palmgreen et al. (1980) developed two 15-item scales to measure the GS and GO. The items measured five GS and GO dimensions: General Information Seeking, Decisional Utility, Entertainment, Interpersonal Utility, and Parasocial Interaction.

The researcher used Palmgreen's uses and gratifications scale (1980, cited in Rubin, Palmgreen & Sypher, 1994) to measure the gratification sought and gratification obtained. These GS-GO scales have been used (a) to test the relationship between GS from TV news and the corresponding GO item for most-watched and least-watched news programs (Palmgreen et al., 1980), (b) to create GS and GO discrepancy scores that distinguish viewers of different news programs (Palmgreen, Wenner, & Rayburn, 1981), and (c) to test specific components of the expectancy-value model (Palmgreen & Rayburn, 1982). Researchers have used the scale items to measure GO from most watched TV news programs (Palmgreen et al., 1980) and have adapted them to measure beliefs, evaluations, and importance of TV news features (Babrow & Swanson, 1988;

Palmgreen & Rayburn, 1982). Some have used several items to assess GO from videotex (Atwater, Heeter, & Brown, 1985) and from morning news programs (Rayburn, Palmgreen, & Acker, 1984), Some studies have not used Item 2 because it does not load cleanly on a single factor (as cited in Rubin, Palmgreen, & Sypher, 1994).

2.3 Definition of 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. 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 apparatus (Che, 2001).

2.4 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 of 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.

According to different standards, health websites can be classified into many types. Gao (2001), a Chinese scholar from Fudan University, classified 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 of attentions owe to their resource advantages.

From the broader perspective, 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). Health website will provide internet health information to gratify the needs of the public. 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).

By combining with the characteristics of Internet media and Lv(1998) 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.

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.

2.5 Concepts of 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 2003, 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.

2.6 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, claimed 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 divided 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. The researcher will examine the uses and gratification in WeChat about health information of elderly Chinese and its effect on their small group relational satisfaction. Among them, Social marketing, diffusion of innovation theory, and Social learning theory are the most significant theories in health communication (Rogers, 1994).

2.7 The Impact of New Media on Health Communication

New media are forms of media that are native to computers, computational and relying on computers for distribution. Some examples of new media are websites, mobile

apps, virtual worlds, multimedia, computer games, human-computer interface, computer animation and interactive computer installations (Lev, 2001).

The health communication on the new media platform combines the advantages of mass communication and interpersonal communication, and the innovation of communication mechanism makes it a powerful tool for the communication of health information. Wang (2016) found that compared with traditional media, new media can cause the fission spread of information, the information which is under the traditional media delayed feedback into instantaneous feedback, one-way communication into two-way interactive communication, public services tend to be more personalized. These advantages make it easier for new media to become a tool to promote health information, thus changing people's unhealthy habits. Wu (2017) pointed out in the survey that the rapid development of new media provides a new way of thinking and means for the construction of people's health service system. Zhou (2014) studies the relationship between new media and traditional media and points out that new media is not opposed to traditional media. New media is the inheritance and development of traditional media. The integration of new media and traditional media is an inevitable trend of media development.

2.8 WeChat and Its Propagation Characteristics

WeChat refers to a free application that Tencent launched on January 21, 2011, to provide instant messaging services for smart terminals. WeChat supports the rapid

delivery of free voice SMS, video, images and text via the network. At the same time, WeChat can also be used by sharing data streaming media content and location based social plugins "shake", "message in a bottle", "moments," "subscription" services such as plug-ins (Li, 2014).

WeChat has been favored by a large number of users in a very short period of time, and people from all walks of life are happy to use WeChat, because it has unparalleled propagation advantages. WeChat is a free app launched by Tencent on January 21, 2011. It provides instant messaging services for smart phones, and allows instant messaging, video, images and text via the Internet. It also provides multi-group chat. On August 23, 2012, WeChat public platform was officially launched, and any individual or organization could apply for WeChat public account for free. Since then, WeChat is no longer limited to chatting in small circles of friends, but actually has the function of publishing information to the outside world, becoming a veritable self-media.

First, WeChat spreads information directly, quickly, and makes the information feel emotional. Any smart phone with WeChat, users can use WeChat anytime and anywhere. Users can use WeChat to describe their life, personal feelings or interesting things. WeChat disseminates information to the outside world through words, sounds, video, pictures, emoticons and other means. Users' friends and family can instantly receive information from users, know what the user is doing, what happened, and even understand the user's mood. WeChat users can give quick feedback on the information. Thumb up, text comments, voice messages and different emojis all make WeChat information temperature and emotion. At the same time, the immediate interaction

between the two sides, like the information broadcast, makes the time and space disappear. WeChat has interactive communication and participation, which not only enables the two sides to know each other's state instantly, but also brings their feelings closer together.

Second, WeChat can continuously expand the users' social scope. In the early days of WeChat users, both parties were known friends. In the circle of precision, WeChat is spread by relatives, friends and colleagues. Because of the special relationship between the sender and the audience, WeChat information is also more private. WeChat can add strangers through shake. By reading common information, accepting each other's message and giving each other's moment thumb up, both parties can quickly become familiar with each other and become friends quickly. The use of WeChat function has been gradually extended from the acquaintance group to the stranger group. Thus, the expansion of the circle of friends from unfamiliar to familiar, from single to group, makes the information spread rapidly like the virus, and the coverage becomes larger and larger, affecting the population more and more (Li, 2014).

2.9 The Impact of WeChat on Health Communication

Currently, there are many researches on "WeChat" or "health communication" in the academic circles in China, but there are not many research papers that combine "WeChat" and "health communication" together. In CNKI, there are only a dozen articles on the common theme "WeChat" and "health communication" (Lu, 2017).

At present, people's demand for health information is very urgent. Both traditional media and new media play their respective roles in the field of health communication. WeChat is a typical example of new media, showing its unique advantages in health communication. According to statistics, WeChat users account for a large proportion of the reading amount of health information. The health communication in WeChat can be divided into several categories according to its content (Li, 2014):

1. Publish health knowledge and information

WeChat publishes health knowledge and information mainly through the form of spontaneity, forwarding and linking. In the self-created and forwarded health information, the content is numerous. Some health information is a summary of life experience. For example, some WeChat users will share their knowledge of life and health to their friends. More health information is the result of research by medical professionals. The health knowledge and information from professional medical personnel is more scientific, and it is easy to obtain a large number of thumb up and forwarding, which has a strong preservation value. In addition to health knowledge sharing, there is a lot of sharing of medical information. For example, the emergency room of a hospital is moved, and the people who come to the hospital need to make plans in advance, or what health lectures are available in the near future, and which health books are published and so on.

2. Engage in healthy conversation and social activities.

WeChat, as a social platform, is used more for chat functions. In the process of chatting with others, users share their own practices and experiences on a healthy topic,

and the two sides of the chat complement each other's health knowledge. These health topics are not only about prevention and cure, but also about healthy eating, such as how to make vegetables more nutritious, which foods are healthier and so on. The experience of life and health information, through WeChat users interact, after filtering, supplement and correction of people, can make some fragmentary knowledge get complement, also can make some practice more scientific. At the same time, it will also transfer more scientific and practical knowledge to more people.

3. WeChat online medical consultation.

WeChat public platform opened by professional medical institutions has played the function of medical consultation. WeChat public platform provided by professional medical institutions provides people with a lot of health information, so that people can access local medical information, health knowledge and health lecture information at any time. At present, many hospitals give full play to the function of WeChat public platform of the hospital. Users can quickly obtain relevant information about the hospital by scanning the qr code of the hospital.

4. WeChat medical registration service.

The difficulty of seeing a doctor is a controversial social topic. In particular, high grade hospitals in Beijing, Shanghai and other places have more than 10,000 patients a day. It is very difficult to make an appointment with a medical specialist, and even completing an ordinary medical registration requires waiting in line for several hours. To solve this problem, many hospitals in China have launched WeChat medical registration

service. For example, Shanghai children's hospital launched WeChat registration service on April 8 this year. Less than half a month later, the hospital's WeChat public account was tracked by 25,000 WeChat users. The WeChat medical register now accounts for about 10% of the hospital's total medical registration.

2.10 Concept and Assumption of Relational Satisfaction in Small Group

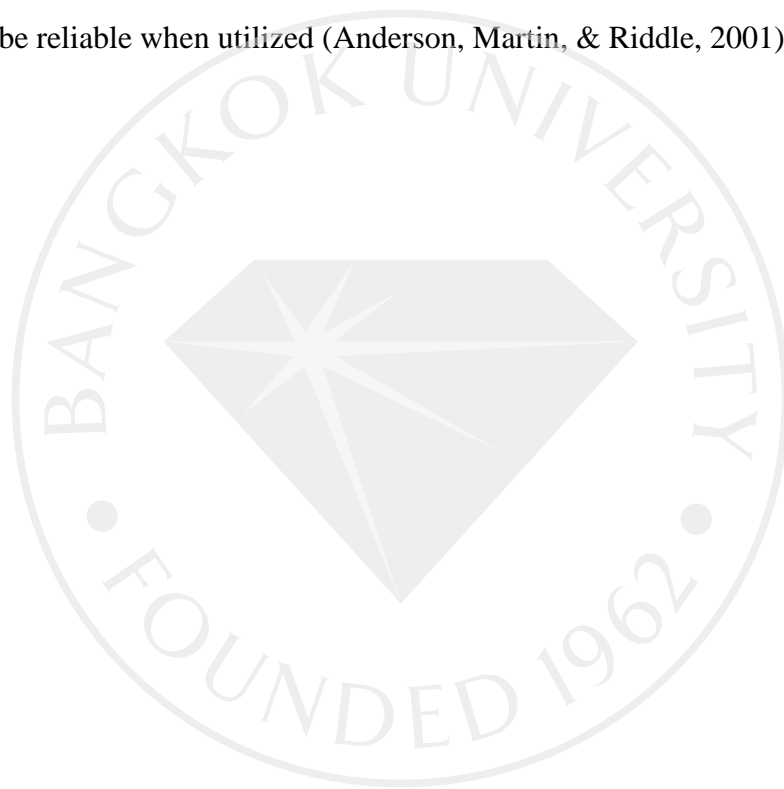
Communication

Anderson, Martin, and Riddle (2001) developed the Small Group Relational Satisfaction Scale (RSS) to measure members' satisfaction with relationships and relational communication in their group. Relational satisfaction was defined as “the building and maintaining of member relationships during communicative processes and practices throughout the life span of the group”.

Relational satisfaction in small groups was characterized by feelings of affection, inclusion, liking, trust, friendship, freedom to communicate, involvement, and getting to know each other, among others (Anderson, Martin, & Riddle, 2001). Together with concepts from other, related measures as well as theoretical literature on the “relational side” of groups (Keyton, 1999, 2000), the author used findings from the content analysis to formulate 12 items designed to measure the relational satisfaction construct. Each is assessed on a five-point scale ranging from strongly disagree (1) to strongly agree (5). Anderson, et al. (2001) found that relational satisfaction was positively correlated with

respondents' attitudes about group work, assertiveness, responsiveness, and perceptions of feedback in small groups.

Researchers interested in the relational side of groups, not simply group performance processes and outcomes, may find the small group RSS useful. The RSS has not yet been used widely, perhaps owing to its recent publication. However, it has been shown to be reliable when utilized (Anderson, Martin, & Riddle, 2001).



2.11 Theoretical Framework

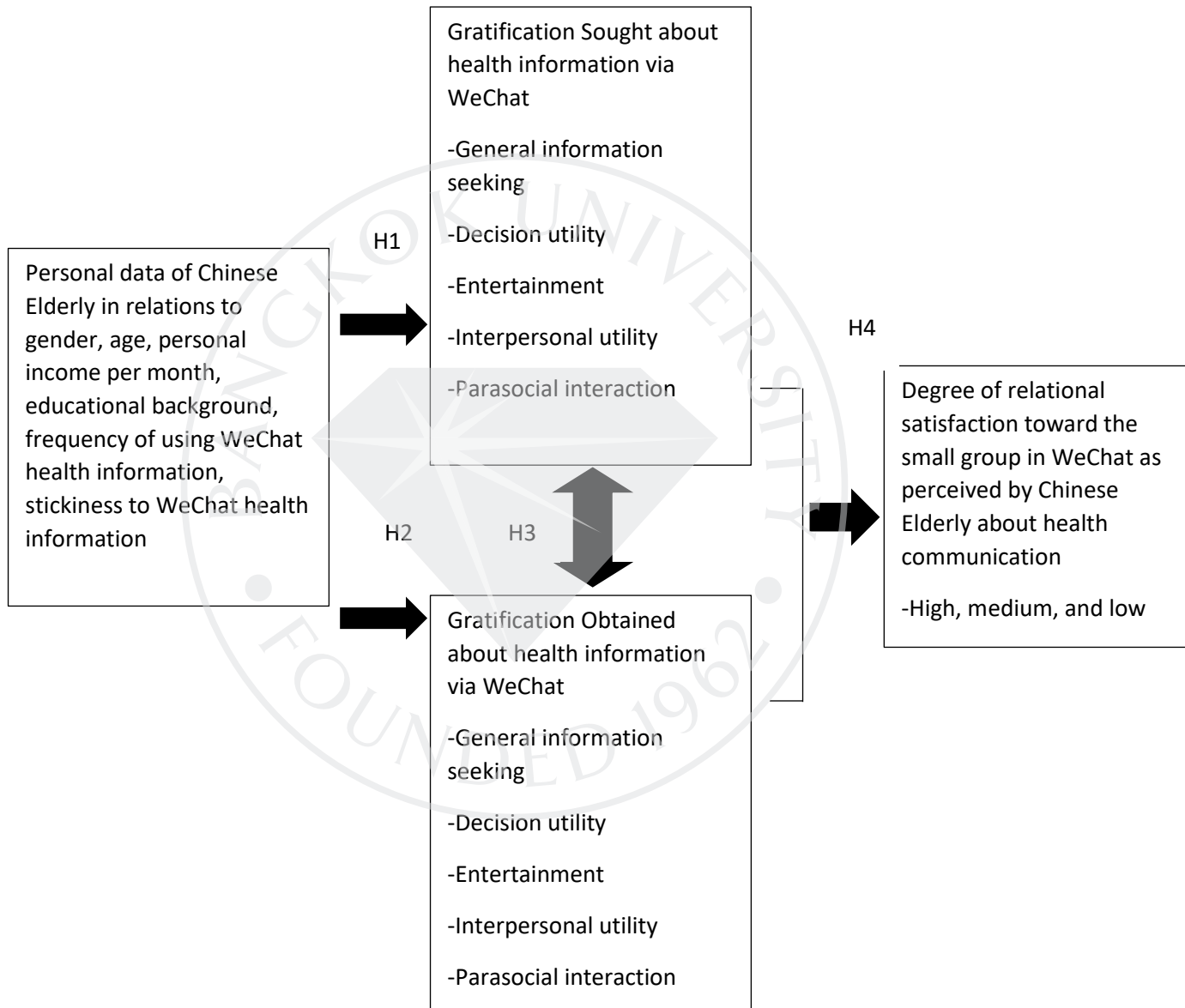


Figure 2.1 Theoretical Framework

The researcher used Uses and gratifications Theory (UG) as a theoretical framework for this study. Uses and Gratification (UGT) is an audience-centered approach to mass communication, which posited that the reasons why people use media helps explain their media choices and consequences. According to this approach, gratifications sought (GS) represent motives for media exposure and are based on expectations about media content. Gratifications obtained (GO), on the other hand, are perceived personal outcomes, they are, therefore, sensitive to media content and feedback to influence content expectations (Palmgreen, Wenner, & Rayburn, 1980). Thus, if their individual expectations were met, their satisfaction will be obtained. Palmgreen, et al. (1980) developed two 15-item scales to measure the GS and GO. The items measured five GS and GO dimensions, including general Information seeking, decisional Utility, entertainment, interpersonal Utility, and parasocial interaction.

2.12 Research Hypothesis

In accordance with the literature review in the second chapter and the research purposes, depending on the current situation of the development of WeChat health information, the researcher developed five research hypotheses to explore the relationship between the five variables which are demographic characteristic and health condition of users, gratification sought, use behavior, gratification obtained and degree of satisfaction:

Hypothesis 1: Chinese elderly who have different personal data (gender, age, personal income per month, educational background, frequency of using WeChat health

information, stickiness to WeChat health information) will have significantly different gratification sought about health information via WeChat.

Hypothesis 1.1: Chinese elderly who have different gender will have significantly different gratification sought about health information via WeChat.

Hypothesis 1.2: Chinese elderly who have different age will have significantly different gratification sought about health information via WeChat.

Hypothesis 1.3: Chinese elderly who have different personal income per month will have significantly different gratification sought about health information via WeChat.

Hypothesis 1.4: Chinese elderly who have different educational background will have significantly different gratification sought about health information via WeChat.

Hypothesis 1.5: Chinese elderly who have different frequency of using WeChat health information will have significantly different gratification sought about health information via WeChat.

Hypothesis 1.6: Chinese elderly who have different stickiness to WeChat health information will have significantly different gratification sought about health information via WeChat.

Hypothesis 2: Chinese elderly who have different personal data (gender, age, personal income per month, educational background, frequency of using WeChat health information, stickiness to WeChat health information) will have significantly different gratification obtained about health information via WeChat.

Hypothesis 2.1: Chinese elderly who have different gender will have significantly different gratification obtained about health information via WeChat.

Hypothesis 2.2: Chinese elderly who have different age will have significantly different gratification obtained about health information via WeChat.

Hypothesis 2.3: Chinese elderly who have different personal income per month will have significantly different gratification obtained about health information via WeChat.

Hypothesis 2.4: Chinese elderly who have different educational background will have significantly different gratification obtained about health information via WeChat.

Hypothesis 2.5: Chinese elderly who have different frequency of using WeChat health information will have significantly different gratification obtained about health information via WeChat.

Hypothesis 2.6: Chinese elderly who have different stickiness to WeChat health information will significant different gratification obtained about health information via WeChat.

Hypothesis 3: Gratification sought and gratification obtained for health information via WeChat among Chinese elderly were positively correlated.

Hypothesis 4: Gratification sought about health information via WeChat and gratification obtained about health information via WeChat among Chinese elderly are

significant predictors of their relational satisfaction toward the small group communication in WeChat health communication.



CHAPTER 3

METHODOLOGY

This chapter summarized the research methodology and the sampling method to examine the relationships among the four variables which are demographic characteristic of WeChat users, gratification sought about health information via WeChat, gratification obtained about health information via WeChat, and their satisfaction toward the small group in WeChat. This chapter is composed of the following sections:

- 3.1 Research Design
- 3.2 Population and Sampling Method
- 3.3 Research Instrument
- 3.4 Instrument Pretest
- 3.5 Data Collection Procedure
- 3.6 Data Analysis
- 3.7 Demographic Data of the Samples

3.1 Research Design

Quantitative research methodologies have always been used in the studies on the audiences of uses and gratifications theory. The purpose of this study is to examine the relationships among the four variables which are demographic characteristic of WeChat users, gratification sought about health information via WeChat, gratification obtained about health information via WeChat, and their satisfaction toward the small group in WeChat.

This research would be applied with the quantitative research approach by using the survey as a specific method to gather the data information in order to see the correlation between demographic characteristic of WeChat users, gratification sought about health information via WeChat, gratification obtained about health information via WeChat and degree of satisfaction toward the small group in WeChat.

3.2 Population and Sampling Method

With the soaring economy and per capital disposable income of Chinese urban and rural residents, living standards are improving. And on the basis of the natural cycles of life, the much more likelihood of various diseases and syndromes may occur on health of Chinese elderly. Thus, health is one of the most concerns among the Chinese elderly. Furthermore, Chinese WeChat users aged over 55 years old are increasing sharply. As more and more Chinese elderly joined in using WeChat, it has become one of people's main ways of getting health information. For this reason, the population of the study was

the Chinese elderly aged over 55 years old and were WeChat users in the past two years old.

There are two kinds of situations of WeChat health information uses; one is the WeChat 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 WeChat themselves. The sample of this research are the Chinese WeChat users aged over 55 years old.

The sample of the survey will be the Chinese WeChat users whose age over 55 years old. On WeChat official website, WeChat technology product department released the "2017 WeChat life report". In this report, WeChat users are divided into three categories: the users born after 1995, typical users and elderly users. Among them, typical users refer to users who account for 65% of monthly active users and 80% of the total number of daily messages sent, while the majority of users who meet these two conditions are the generation after 80s and 90s. As defined in the report, WeChat elderly users refer to WeChat users aged 55-70. The samples are selected using convenience sampling from different regions of Shanghai, China. Shanghai first entered the aging society in 1979. By the end of 2010, the number of registered residents in Shanghai was 14.1232 million, and the registered elderly population aged 60 years and above had reached 3,3102 million, accounting for 23.4 percent of the total population. They have the ability to independently use WeChat function and have some understanding and contact with WeChat health information. Due to the available WeChat report, the researcher used Chinese Elderly WeChat users who are currently using WeChat health

information in the past two years period from July 2016 to July 2018, because the percentage of Elderly Chinese WeChat uses are increasing rapidly. Hence, WeChat health information would like to reach this specific group believing that elderly people will be the highest WeChat users in the next few years.

To test the reliability of the questionnaire, 30 respondents were selected to do of pre-test and use non-probability sampling method to launch the survey. The survey was distributed to Chinese elderly aged between 55 years old to 70 years old or higher who are currently living in Shanghai, China. The sample will be selected using convenience sampling who are currently using WeChat in the past 2 years period. The survey was distributed via online by using convenience sampling. Two hundred respondents will participate in the survey.

3.3 Research Instrument

Quantitative research methods 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 researcher develops the questionnaire on the basis of the traits of WeChat health information as well as the previous studies abroad and at home.

The questionnaire in this research has been designed as close-ended form and it is consisted of four sections. Section A which is the first section is the demographic characteristic and health condition of the respondents; Section B is about respondents'

gratification sought about health information via WeChat; section C is about respondents' gratification obtained about health information via WeChat; section D is about small group relational satisfaction. Details are elaborated as follow:

A. Demographic characteristic and health condition

There were 9 questions in this section. This section was composed of the basic demographic data questions that included respondents' gender, age, education background, monthly income and health condition. Besides, frequency, duration of usage, connectivity and stickiness are added to better understand the use behavior of elder Chinese who use WeChat health information. Frequency refers to how often do you use WeChat for health information in a daily life. Duration of usage refers to how long do you spend time on searching and browsing health information through WeChat each time. Connectivity refers to what kinds of health-related WeChat public accounts you often go to. Stickiness refers to how many WeChat public accounts you've visited for the last time you search/browse/use health information. In this section, the researcher used nominal and ordinal scale format to design the questions. The demographic items could be founded in section A of Appendix 1.

B. Gratification Sought about health information via WeChat

This section was consisted of 15 questions. The second section of questionnaire consisted of questions designed to measure respondents' gratification sought about health information via WeChat. The information processing was measured with 5-factor and 15-item version of the Uses and Gratifications Scale profiled by Whiting and William (2013).

The Cronbach alpha of the original scale was 0.959, which is considered reliable. Based on Whiting and William's Use and Gratification Scale (2013), the researcher used a 5-point-likert scale format to design the response ranging from (1) strongly disagree to with the statement, (2) disagree with the statement, (3) neither agree nor disagree with the statement, (4) agree with the statement, and (5) strongly agree with the statement. The higher score the respondents selected, the stronger gratifications they want to seek. The gratification sought items could be founded in section B of Appendix 1.

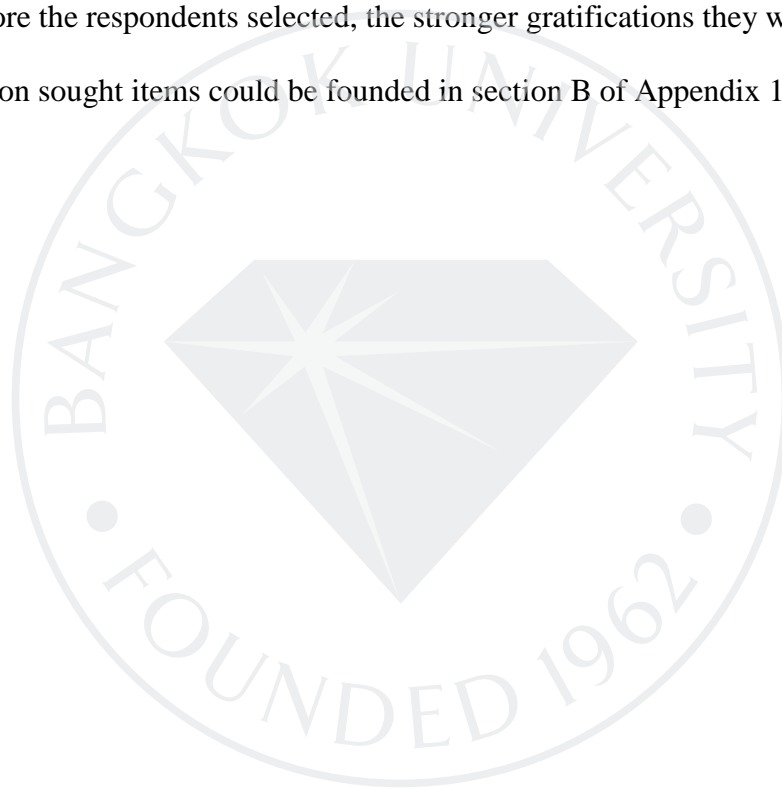


Table 1: Uses and Gratifications Scale Gratification Sought: 5 factors and 15 items

15 Items	5 Factors
1. I use WeChat health information to access current issues in health information and events.	General information seeking
2. I use WeChat health information so that I will not be surprised by unexpected health diseases that might happen in my life.	
3. I use WeChat health information, because I trust the information they give me.	
4. I use WeChat health information, because doctors and health experts gave me a human-like quality service about the health information.	Parasocial interaction
5. I use WeChat health information to compare my own ideas to what doctors and health experts said.	
6. I use WeChat health information, because doctors and health expert are like people I knew.	
7. I used WeChat to find out what kind of health information are important nowadays.	Decision utility
8. I use WeChat health information to help me make up my mind about the important issues of the day.	
9. I use WeChat health information to find out about health issues affecting people like myself.	
10. I use WeChat health information to support my viewpoints to other people.	Interpersonal utility
11. I use WeChat health information so I can pass the information on to other people.	
12. I use WeChat health to give me interesting things to talk about.	
13. I use WeChat health information, because it is often entertaining.	Entertainment
14. I use WeChat health information, because it is stimulating.	
15. I use WeChat health information, because it is exciting.	

C. Gratification Obtained about health information via WeChat

The third section of questionnaire consisted of questions designed to measure respondents' gratification obtained about health information via WeChat. The information processing was measured with 5-factor and 15-item version of the Uses and

Gratifications Scale profiled by Whiting and William (2013). This section consisted of 15 questions. The Cronbach alpha of the original scale was 0.946, which is considered reliable. Based on Whiting and William's Use and Gratification Scale (2013), the researcher used a 5-point-Likert scale format to design the response ranging from (1) strongly disagree with the statement, (2) disagree with the statement, (3) neither agree nor disagree with the statement, (4) agree with the statement, and (5) strongly agree with the statement. The higher score the respondents selected, the stronger gratifications they got. The gratification obtained items are founded in section C of Appendix 1.

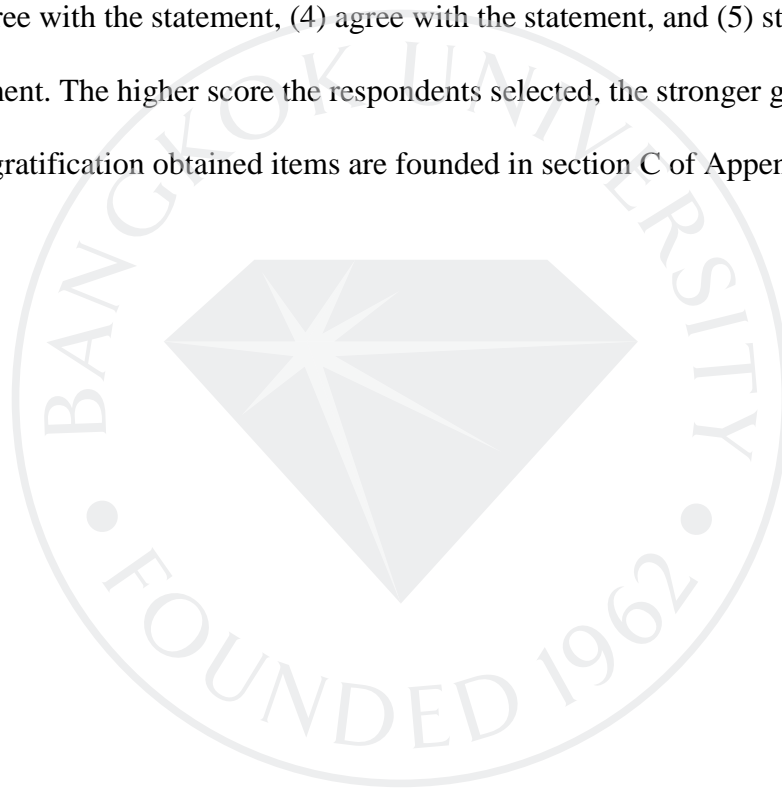


Table 2: Uses and Gratifications Scale Gratification Obtained: 5 factors and 15 items

15 Items	5 Factors
1. I got accurate information about current issues in health information and events in WeChat health subscription.	General information seeking
2. I was not surprised by unexpected health disease that might happen in my life.	
3. I believe that the health information in WeChat are trustworthy and reliable.	
4. I perceived that health information provided by doctors and health experts in WeChat health information are real and human-like.	Parasocial interaction
5. I compared my own ideas to what doctors and health experts say.	
6. I perceived that doctors and health experts in WeChat are like people I knew.	
7. I learnt about what kind of health information is important to me nowadays from WeChat health information.	Decision utility
8. WeChat health information help me make up my mind about the important issues of the day.	
9. I found out about health issues affecting my life.	
10. WeChat health information supports my viewpoints to other people.	Interpersonal utility
11. I can pass the health information on to other people.	
12. WeChat health provides me interesting things to talk about with other people.	
13. WeChat health information entertain me.	Entertainment
14. WeChat health information stimulate my interest in health issue.	
15. WeChat health information provide exciting information that I don't know before.	

D. Degree of relational satisfaction in using WeChat among Chinese Elderly about the small group communication about health in WeChat

The fourth section of questionnaire consisted of questions designed to measure the degree of relational satisfactions in using WeChat among Chinese Elderly about their own health. Relational satisfaction was defined as “the building and maintaining of member relationships during communicative processes and practices throughout the life span of the group” (Anderson, Martin, & Riddle, 2001). Relational satisfaction in small groups was characterized by feelings of affection, inclusion, liking, trust, friendship, freedom to communicate, involvement, and getting to know each other, among others (Anderson, et al., 2001). Relational satisfaction was positively correlated with respondents’ attitudes about group work, assertiveness, responsiveness, and perceptions of feedback in small groups (Anderson, et al., 2001). The researcher used the small group RSS to measure the members’ satisfaction with relationships and relational communication in WeChat health information group, because the researcher is interested in the relational side of groups, not simply group performance processes and outcomes. In this section, the researcher used a 5–point–likert scale format to design the response ranging from (1) strongly disagree to with the statement, (2) disagree with the statement, (3) neither agree nor disagree with the statement, (4) agree with the statement, (5) strongly agree with the statement. All of these items are founded in section D of Appendix 1.

Table 3: Relational satisfaction of small group communication: 1 factors and 12 items

12 Items	1 Factors
1. The doctors and health experts in WeChat spend time getting to know me.	Small group relational satisfaction
2. The members in WeChat health information make me feel a part of the group.	
3. I look forward to joining the group meeting every day.	
4. I do not feel part of the group in WeChat health information.	
5. The members in WeChat health information make feel liked.	
6. My absence would not matter to the group in WeChat health information.	
7. I can trust doctors and health experts in WeChat health information.	
8. We can say anything in this group “WeChat health information” without worrying.	
9. I prefer not to spend time with members of the group “WeChat health information”.	
10. The members in this group “WeChat health information” made me feel involved in the group.	
11. Some of the group members could become my friends.	
12. The group atmosphere in WeChat health information is comfortable.	

3.3.1 Interpretation of the Uses and Gratification and Relational Satisfaction

Table 3.1: Analyzing the opinion of respondents toward their gratification sought and

obtained for WeChat and relational satisfaction toward group communication

in WeChat

Opinion toward the statement	Score	Criteria	Meaning
Strongly agree with the statement	5	4.21 – 5.00	Strongly agree
Agree with the statement	4	3.41 – 4.20	Agree
Neutral with the statement	3	2.61 – 3.40	Neutral
Disagree with the statement	2	1.81 – 2.60	Disagree
Strongly Disagree with the statement	1	1.00 – 1.80	Strongly disagree

Table 3.1.1: Analyzing the degree of gratification sought and obtained for WeChat

Criteria	Meaning
3.68 – 5.00	High level
2.34 – 3.67	Medium level
1.00 – 2.33	Low level

3.4 Instrument Pretest

Firstly, the questionnaire with four sections was translated into Chinese. The Chinese questionnaire was then back translation into English to check the validity of the questionnaire. And then, the questionnaires were distributed to 30 respondents as a pretest to ensure that all the statements were clearly understood by the respondents. Based on the reliability report, the researcher has adjusted unclear words or phrases in the statements. After making those adjustments in the survey questionnaire, the researcher sent the corrected questionnaire to the 30 respondents by email. Nunnally (1978, as cited in Hong, 2005) considered 0.7 as an acceptable reliability coefficient. In this research, all scales of gratification sought, gratification obtained from WeChat health information, and small group relational satisfaction were higher than .70, which is considered acceptable

(Nunnally, 1978 as cited in Hong, 2005). No statement has been deleted from the original scale. Cronbach's alpha coefficient to assess the reliability of the instrument was presented as follow in Table 3.2 and Table 3.3:

Table 3.2: The reliability of instrument

Variables	Cronbach's Alpha
The overall of Gratification Sought about health information via WeChat	0.959
Gratification sought: General information seeking	0.831
1. I use WeChat health information to access current issues in health information and events.	0.763
2. I use WeChat health information so that I will not be surprised by unexpected health diseases that might happen in my life.	0.697
3. I use WeChat health information, because I trust the information they give me.	0.839
Gratification sought: Parasocial interaction	0.851
1. I use WeChat health information, because doctors and health experts gave me a human-like quality service about the health information.	0.828
2. I use WeChat health information to compare my own ideas to what doctors and health experts said.	0.771
3. I use WeChat health information, because doctors and health expert are like people I knew.	0.771
Gratification sought: Decision utility	0.893
1. I use WeChat health information to help me make up my mind about the important issues of the day.	0.854
2. I used WeChat to find out what kind of health information are important nowadays.	0.885
3. I use WeChat health information to find out about health issues affecting people like myself.	0.801
Gratification sought: Interpersonal utility	0.921
1. I use WeChat health information to support my viewpoints to other people.	0.884
2. I use WeChat health information so I can pass the information on to other people.	0.849
3. I use WeChat health to give me interesting things to talk about.	0.917
Gratification sought: Entertainment	0.924
1. I use WeChat health information, because it is often entertaining.	0.892
2. I use WeChat health information, because it is stimulating.	0.89

(Continued)

Table 3.2 (Continued): The reliability of instrument	
3. I use WeChat health information, because it is exciting.	0.89
The overall of Gratification Obtained about health information via WeChat	0.946
Gratification obtained: General information seeking	0.713
1. I got accurate information about current issues in health information and events in WeChat health subscription.	0.554
Table 3.2 (Continued): The reliability of instrument	
2. I were not surprised by unexpected health disease that might happen in my life.	0.882
3. I believe that the health information in WeChat are trustworthy and reliable.	0.322
Gratification obtained: Parasocial interaction	0.576
1. I perceived that health information provided by doctors and health experts in WeChat health information are real and human-like.	0.357
2. I compared my own ideas to what doctors and health experts say.	0.622
3. I perceived that doctors and health experts in WeChat are like people I knew.	0.403
Gratification obtained: Decision utility	0.791
1. I learnt about what kind of health information is important to me nowadays from WeChat health information.	0.661
2. WeChat health information help me make up my mind about the important issues of the day.	0.859
3. I found out about health issues affecting my life.	0.627
Gratification obtained: Interpersonal utility	0.89
1. WeChat health information supports my viewpoints to other people.	0.82
2. I can pass the health information on to other people.	0.846
3. WeChat health provides me interesting things to talk about with other people.	0.865
Gratification obtained: Entertainment	0.907
1. WeChat health information entertain me.	0.863
2. WeChat health information stimulate my interest in health issue.	0.869
3. WeChat health information provide exciting information that I don't know before.	0.871
The overall of small group relational satisfaction about health information via WeChat	0.904
1. The doctors and health experts in WeChat spend time getting to know me.	0.896
2. The members in WeChat health information make me feel a part of the group.	0.892
3. I look forward to joining the group meeting every day.	0.891

(Continued)

Table 3.2 (Continued): The reliability of instrument

4. I do not feel part of the group in WeChat health information.	0.92
5. The members in WeChat health information make feel liked.	0.885
6. My absence would not matter to the group in WeChat health information.	0.91
7. I can trust doctors and health experts in WeChat health information.	0.888
8. We can say anything in this group “WeChat health information” without worrying.	0.891
9. I prefer not to spend time with members of the group “WeChat health information”	0.908
10. The members in this group “WeChat health information” made me feel involved in the group.	0.89
11. Some of the group members could become my friends.	0.892
12. The group atmosphere in WeChat health information is comfortable.	0.888

Table 3.3: The Comparison of Cronbach’s alpha

	NO. of item	Sample 30 Cronbach's Alpha	NO. of item	Sample 200 Cronbach's Alpha
1. The overall of gratification sought about health information via WeChat	15	0.959	5	0.976
Gratification sought: General information seeking	3	0.831	3	0.887
Gratification sought: Parasocial interaction	3	0.851	3	0.889
Gratification sought: Decision utility	3	0.893	3	0.914
Gratification sought: Interpersonal utility	3	0.921	3	0.88
Gratification sought: Entertainment	3	0.924	3	0.926
2. The overall of gratification obtained about health information via WeChat	15	0.946	5	0.976
Gratification obtained: General information seeking	3	0.713	3	0.894
Gratification obtained: Parasocial interaction	3	0.576	3	0.891
Gratification obtained: Decision utility	3	0.791	3	0.914
Gratification obtained: Interpersonal utility	3	0.89	3	0.87
Gratification obtained: Entertainment	3	0.907	3	0.926
3. The overall of small group relational satisfaction about health information via WeChat	12	0.904	12	0.965

As shown in Table 3.3, the questionnaires were pretested with 30 respondents. The total result of gratification sought ($\alpha = .976$) and gratification obtained ($\alpha = .976$) about health information via WeChat were considered acceptable, because the Cronbach's Alpha is higher than 0.7 which is higher than the standard level set of the reliability test. Nunnally (1978, as cited in Hong, 2005) considered 0.7 as an acceptable reliability coefficient. As shown in Table 3.3, the results showed that Cronbach's Alpha of gratification sought about health information via WeChat toward all dimensions were higher than .70, including gratification sought for general information seeking ($\alpha = .887$), parasocial interaction ($\alpha = .889$), decision utility ($\alpha = .914$), interpersonal utility ($\alpha = .880$) and gratification sought entertainment ($\alpha = .926$). As shown in Table 3.3, the results showed that Cronbach's Alpha of gratification obtained about health information via WeChat were higher than .70, including gratification obtained for general information seeking ($\alpha = .894$), parasocial interaction ($\alpha = .891$), decision utility ($\alpha = .914$), interpersonal utility ($\alpha = .870$) and entertainment ($\alpha = .926$). The results showed that the small group relational satisfaction about health information via WeChat is also acceptable ($\alpha = 0.965$).

3.5 Data Collection Procedure

Before distributing the questionnaires to the respondents, the researcher had it translated into Chinese by using the method of back translation. The English questionnaire was translated into Chinese and then translated back into English by

Chinese person who is fluent in English. The two version of the original were crosschecked for adequacy in translation. The discrepancies between the two versions suggested to the researcher that further translation was required. When no discrepancies between the two versions could be found, questionnaires were pretested to 30 respondents who are exposing to WeChat health information in the past two years period. During the pre – test process, any error detected would be corrected as appropriate. The process of data collection took around one month to gather the result of the questionnaire sent to the WeChat health information users. The researcher was required to extract the results of the questionnaire in the form of excel for the data analysis purpose from Google.

3.6 Data Analysis

Hypothesis 1: Chinese elderly who have different personal data (gender, age, personal income per month, educational background, frequency of using WeChat health information, stickiness to WeChat health information) will have significantly different gratification sought about health information via WeChat.

Hypothesis 1.1: Chinese elderly who have different gender will have significantly different gratification sought about health information via WeChat.

Independent variables: Gender (Nominal Scale)

Dependent variables: Gratification sought about health information (Likert Scale)

Statistics: Independent Sample T-test

Hypothesis 1.2: Chinese elderly who have different age will have significantly different gratification sought about health information via WeChat.

Independent variables: Age (Ordinal Scale)

Dependent variables: Gratification sought about health information (Likert Scale)

Statistics: One-Way ANOVA

Hypothesis 1.3: Chinese elderly who have different personal income per month will have significantly different gratification sought about health information via WeChat.

Independent variables: Personal income per month (Ordinal Scale)

Dependent variables: Gratification sought about health information (Likert Scale)

Statistics: One-Way ANOVA

Hypothesis 1.4: Chinese elderly who have different educational background will have significantly different gratification sought about health information via WeChat.

Independent variables: Educational background (Ordinal Scale)

Dependent variables: Gratification sought about health information (Likert Scale)

Statistics: One-Way ANOVA

Hypothesis 1.5: Chinese elderly who have different frequency of using WeChat health information will have significantly different gratification sought about health information via WeChat.

Independent variables: Frequency of using WeChat health information (Ordinal Scale)

Dependent variables: Gratification sought about health information (Likert Scale)

Statistics: One-Way ANOVA

Hypothesis 1.6: Chinese elderly who have different stickiness to WeChat health information will have significantly different gratification sought about health information via WeChat.

Independent variables: Stickiness to WeChat health information (Ordinal Scale)

Dependent variables: Gratification sought about health information (Likert Scale)

Statistics: One-Way ANOVA

Hypothesis 2: Chinese elderly who have different personal data (gender, age, personal income per month, educational background, frequency of using WeChat health information, stickiness to WeChat health information) will have significantly different gratification obtained about health information via WeChat.

Hypothesis 2.1: Chinese elderly who have different gender will have significantly different gratification obtained about health information via WeChat.

Independent variables: Gender (Nominal Scale)

Dependent variables: different gratification obtained about health information (Likert Scale)

Statistics: One-Way ANOVA

Hypothesis 2.2: Chinese elderly who have different age will have significantly different gratification obtained about health information via WeChat.

Independent variables: Age (Ordinal Scale)

Dependent variables: Gratification obtained about health information (Likert Scale)

Statistics: One-Way ANOVA

Hypothesis 2.3: Chinese elderly who have different personal income per month will have significantly different gratification obtained about health information via WeChat.

Independent variables: Personal income per month (Ordinal Scale)

Dependent variables: Gratification obtained about health information (Likert Scale)

Statistics: One-Way ANOVA

Hypothesis 2.4: Chinese elderly who have different educational background will have significantly different gratification obtained about health information via WeChat.

Independent variables: Educational background (Ordinal Scale)

Dependent variables: Gratification obtained about health information (Likert Scale)

Statistics: One-Way ANOVA

Hypothesis 2.5: Chinese elderly who have different frequency of using WeChat health information will have significantly different gratification obtained about health information via WeChat.

Independent variables: Frequency of using WeChat health information (Ordinal Scale)

Dependent variables: different gratification obtained about health information (Likert Scale)

Statistics: One-Way ANOVA

Hypothesis 2.6: Chinese elderly who have different stickiness to WeChat health information will have significantly different gratification obtained about health information via WeChat.

Independent variables: Stickiness to WeChat health information (Ordinal Scale)

Dependent variables: Gratification obtained about health information (Likert Scale)

Statistics: One-Way ANOVA

Hypothesis 3: Gratification sought and gratification obtained for health information via WeChat among Chinese elderly were positively correlated.

Independent variables: gratification sought for health information (gratification obtained for health information) (Likert scale)

Dependent variables: gratification obtained for health information (gratification sought for health information) (Likert scale)

Statistics: Spearman Rank Correlation

Hypothesis 4: Gratification sought about health information via WeChat and gratification obtained about health information via WeChat among Chinese elderly are significant predictors of their relational satisfaction toward the small group communication in WeChat health communication.

Independent variables: gratification sought and gratification obtained about health information

Dependent variables: relational satisfaction toward the small group communication (Likert scale)

Statistics: Multiple Regression.

3.7 Demographic Data of the Samples

3.7.1 Summary on Descriptive Findings

This part focuses on the demographic profile of 200 samples responding to the questionnaire questions, which include gender, age, monthly income, education background, health condition, frequency of using WeChat health information, stickiness to WeChat health information, kinds of health-related WeChat public accounts and number of public accounts. The data are summarized and presented in frequency and percentage as shown in Table.

The descriptive findings indicated that majority of the sample were female (55.5%, n = 111), majority of the sample were aged 55-59 years old (22%, n= 44), earned less than 4,000 yuan per month (54.5%, n= 109), obtained high school (44%, n = 88), felt good about their health condition (40.5%, n=81), and were serious about keeping healthy in their daily work, diet, and exercise (39%, N=78). In addition, majority of the sample used WeChat for health information 1-2 times per day (28.5%, n=57), spent less than 30 minutes for each searching and browsing WeChat health information (39.5%, n=79), often joined government owned health WeChat public accounts (22%, n=44), and visited four to five WeChat public accounts for the last time and they search/browse/use health information (26%, n=52).

As shown in Table 3.7.1, the descriptive findings indicated that majority of the sample were female (55.5%, n = 111), male (44.5%, n = 89).

Table 3.7.1: Sum and Percentage of the Sample's Chinese Elderly WeChat Users

based on the gender

Demographic profile	Frequency	Percent %
Gender		
Male	89	44.5
Female	111	55.5
Total	200	100

As shown in Table 3.7.2, the descriptive findings indicated that majority of the sample were aged 55-59 years old (22%, n= 44), followed by samples aged 60-64 years old (20.5%, n= 41), 65-69 years old (19%, n= 38), more than 79 years old (14%, n= 28), 75-79 years old (13.5%, n= 27) and 70-74 years old (11%, n= 22), respectively.

Table 3.7.2: Sum and Percentage of the Sample's Chinese Elderly WeChat Users based on the Age

Demographic profile	Frequency	Percent %
Age		
55-59 years old	44	22
60-64 years old	41	20.5
65-69 years old	38	19
70-74 years old	22	11
75-79 years old	27	13.5
More than 79 years old	28	14
Total	200	100

As shown in Table 3.7.3, the descriptive findings indicated that majority of the sample earned less than 4,000 yuan per month (54.5%, n= 109), followed by those who earned 4,001 yuan-10,000 yuan per month (30.5%, n= 61), 10,001-16,000 yuan per

month (5.5%, n= 11), 16,001-22,000 yuan per month (5%, n= 10), higher than 26,000 yuan per month (2.5%, n= 5), and 22,001-26,000 yuan per month (2%, n= 4), respectively.

Table 3.7.3: Sum and percentage of the sample's Chinese elderly WeChat users

based on the monthly income

Demographic profile	Frequency	Percent %
Monthly income		
Less than 4,000 yuan	109	54.5
4,001 - 10,000 yuan	61	30.5
10,001- 16,000 yuan	11	5.5
16,001 - 22,000 yuan	10	5
22,001- 26,000 yuan	4	2
Higher than 26,000 yuan	5	2.5
Total	200	100

As shown in Table 3.7.4, descriptive findings indicated that majority of the sample obtained high school (44%, n = 88), vocational School (21.5%, n =43), bachelor's degree (21%, n = 42), master's degree or higher (12%, n = 24) and others (1.5%, n =3), respectively.

Table 3.7.4: Sum and Percentage of the Sample's Chinese Elderly WeChat Users

based on the Education Background

Demographic profile	Frequency	Percent %
Education Background		
High School	88	44
Vocational School	43	21.5
Bachelor degree	42	21
Master degree	21	10.5
Doctoral degree	3	1.5
Others	3	1.5
Total	200	100

As shown in Table 3.7.5, the descriptive findings indicated that majority of the samples felt good about their health condition (40.5%, n=81), followed by those who felt very good (25%, n=50), felt neither good nor bad (20.5%, n=41), felt bad (8%, n=16) and felt very bad (6%, n=12), respectively.

The descriptive findings indicated that majority of the samples were serious about keeping healthy in their daily work, diet, and exercise (39%, N=78), followed by those who were very serious (32.5%, n=65), fair (13%, n=26), not very serious (9%, n=18) and not at all (6.5%, n=13), respectively.

Table 3.7.5: Sum and Percentage of the Sample's Chinese Elderly WeChat Users

based on the Health Condition

How do you feel about your health condition now?

Demographic profile	Frequency	Percent %
Health Condition		
Very bad	12	6
Bad	16	8
Neither good nor bad	41	20.5
Good	81	40.5
Very good	50	25
Total	200	100

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

Demographic profile	Frequency	Percent %
Health Condition		
Not at all	13	6.5
Not very serious	18	9
Fair	26	13
Serious	78	39
Very serious	65	32.5
Total	200	100

As shown in Table 3.7.6, the descriptive findings indicated that majority of the sample use WeChat for health information 1-2 times per day (28.5%, n=57), followed by those who use WeChat for health information 4-5 times per day (24.5%, n=49), 3-4 times per day (21%, n=42), more than 5 times per day (21%, n=42) and never use WeChat for health information (5%, n=10), respectively.

Table 3.7.6: Sum and Percentage of the Sample's Chinese Elderly WeChat Users

based on the Frequency of Using WeChat Health Information

How often do you use WeChat for health information in a daily life?

Demographic profile	Frequency	Percent %
Frequency		
	Never (None per day)	10 5
	Seldom (1-2 times per day)	57 28.5
	Sometimes (3-4 times per day)	42 21
	Often (4-5 times per day)	49 24.5
	Always (More than 5 per day)	42 21
Total	200	100

As shown in Table 3.7.7, the descriptive findings indicated that there were 200 Chinese elderly WeChat users of stickiness to WeChat health information, the majority of the sample spent less than 30 minutes for each searching and browsing WeChat health information (39.5%, n=79), followed by those who spent more than 30 minutes to 1 hour for each searching and browsing (34.5%, n=69), more than 1 hour to 2 hours for each searching and browsing (9%, n=18), more than 4 hours or more for each searching and browsing (9%, n=18) and more than 3 hours for each searching and browsing (8%, n=16), respectively.

Table 3.7.7: Sum and Percentage of the Sample's Chinese Elderly WeChat Users

based on the Stickiness to WeChat Health Information

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

Demographic profile	Frequency	Percent %
Stickiness		
Less than 30 minutes for each searching and browsing (Very low stickiness)	79	39.5
More than 30 minutes to 1 hour for each searching and browsing (Low stickiness)	69	34.5
More than 1 hour to 2 hours for each searching and browsing (Medium stickiness)	18	9
More than 3 hours for each searching and browsing (Stickiness)	16	8
More than 4 hours or more for each searching and browsing (Very high stickiness)	18	9
Total	200	100

As shown in Table 3.7.8, the descriptive findings indicated that there were 200 Chinese elderly WeChat users of health-related WeChat public accounts, majority of the sample often join government owned health WeChat public accounts (22%, n=44), followed by those who join medical associations and health-related social organization WeChat public accounts (16.5%, n=33), health-related sub-sections of comprehensive WeChat public accounts (16%, n=32), hospital and medical research institutional WeChat public accounts (15.5%, n=31), health care and medicine corporations' WeChat public

accounts (13.5%, n=27), individual health WeChat public accounts (12%, n=24) and others (4.5%, n=9), respectively.

Table 3.7.8: Sum and Percentage of the Sample's Chinese Elderly WeChat Users

based on the Health-Related WeChat Public Accounts that the Respondents Often join in the Past One-Year Period

What kinds of health-related WeChat public accounts you often join in the past one-year period?

Demographic profile	Frequency	Percent %
Kinds		
Government owned health WeChat public accounts	44	22
Hospital and medical research institutional WeChat public accounts	31	15.5
Health care and medicine corporations' WeChat public accounts	27	13.5
Health-related sub-sections of comprehensive WeChat public accounts	32	16
Medical associations and health-related social organization WeChat public accounts	33	16.5
Individual health WeChat public accounts	24	12
Others	9	4.5
Total	200	100

As shown in Table 3.7.9, descriptive findings indicated that there were 200 Chinese elderly WeChat users of the numbers about WeChat public accounts the

respondents visited for the last time, the majority of the sample visited four to five WeChat public accounts for the last time they search/browse/use health information (26%, n=52), followed by those who visited two to three (19%, n=38), twenty or more (17%, n=34), one (16%, n=32), six to ten (15.5%, n=31) and cannot remember (6.5%, n=13), respectively.

Table 3.7.9: Sum and Percentage of the Sample's Chinese Elderly WeChat Users

based on How Many WeChat Public Accounts the Respondents Visited for the Last Time Search/Browse/Use Health Information

How many WeChat public accounts you've visited for the last time you search/browse/use health information?

Demographic profile	Frequency	Percent %
Number		
Twenty or more	34	17
Six to ten	31	15.5
Four to five	52	26
Two to three	38	19
One	32	16
Cannot remember	13	6.5
Total	200	100

CHAPTER 4

FINDINGS

This chapter presented data analysis and data interpretation on the relationship among the four variables, including demographic characteristic of WeChat users, gratification sought about health information via WeChat, gratification obtained about health information via WeChat, and their satisfaction toward the small group in WeChat. The data gathered from 200 respondents were analyzed using descriptive statistics such as sum, percentage, mean, standard deviation, and inferential statistics such as Analysis of Variance (One-Way ANOVA), Spearman Correlation, and Linear Regression. The findings presented in this chapter are divided into two parts. The first part provides the descriptive statistics such as sum, mean, and percentage of dependent and independent variables. The second part discusses the hypotheses testing of the study.

The topics encompassed the details of this chapter:

4.1 Summary of Descriptive Findings

4.2 Hypotheses Testing

4. 1 Summary of Descriptive Findings

To interpret the descriptive findings of this study, the mean range was classified into 3 levels as follows in Table 4.1.1:

Table 4.1.1: Data Analysis for gratification sought about health information via WeChat

Opinion toward the statement	Score	Criteria	Meaning
Strongly agree with the statement	5	4.21 – 5.00	Strongly agree
Agree with the statement	4	3.41 – 4.20	Agree
Neutral with the statement	3	2.61 – 3.40	Neutral
Disagree with the statement	2	1.81 – 2.60	Disagree
Strongly Disagree with the statement	1	1.00 – 1.80	Strongly disagree

Table 4.1.1.1: Analyzing the degree of gratification sought for WeChat

Criteria	Meaning
3.68 – 5.00	High level
2.34 – 3.67	Medium level
1.00 – 2.33	Low level

As shown in Table 4.1.2, the descriptive findings found that majority of the respondents agreed with the statements (Mean = 3.58, SD = 0.95). When examining each statement, respondents agreed with the statement “ I use WeChat health information so that I will not be surprised by unexpected health diseases that might happen in my life with the highest mean (Mean = 3.73,SD, 1.02), followed by the statement “I use WeChat health information to access current issues in health information and event “ (Mean =

3.54, SD= 0.97), and “ I use WeChat health information, because I trust the information they give me .” (Mean = 3.47, SD+ 1.16), respectively.

When examining the levels of gratification sought for general information seeking, majority of the respondents had medium level of gratification sought for general information seeking (Mean = 3.58, SD= 0.95). Respondents perceived the statement“ I use WeChat health information so that I will not be surprised by unexpected health diseases that might happen in my life” (Mean = 3.73,SD, 1.02) at the high level, followed by other statements in the medium levels, including ““I use WeChat health information to access current issues in health information and event “ (Mean = 3.54, SD= 0.97), and “ I use WeChat health information, because I trust the information they give me .” (Mean = 3.47, SD+ 1.16), respectively.

Table 4.1.2: Means and standard deviation on the samples’ gratification sought General information seeking about health information via WeChat

Gratification sought about health information via WeChat	Mean	Std. Deviation	Interpretation
Gratification sought for General information seeking			
1. I use WeChat health information to access current issues in health information and events.	3.54	0.976	Medium level
2. I use WeChat health information so that I will not be surprised by unexpected health diseases that might happen in my life.	3.73	1.026	High level
3. I use WeChat health information, because I trust the information they give me.	3.47	1.16	Medium level
Total	3.582	0.95458	Medium level

As shown in Table 4.1.3 the descriptive analysis found that majority of the respondents agreed with the statements (Mean= 3.567, SD= 0.9575). When examining each statement, respondents agree with the statement, “I use WeChat health information to compare my own ideas to what doctors and health experts said” with the highest mean (Mean= 3.73, SD= 0.944), followed by the statement, “I use WeChat health information, because doctors and health expert are like people I knew” (Mean= 3.56, SD= 1.205) and “I use WeChat health information, because doctors and health experts gave me a human-like quality service about the health information” (Mean= 3.4, SD= 1.008), respectively.

When examining the levels of gratification sought for parasocial interaction, majority of the respondents had medium level of gratification sought for parasocial interaction (Mean= 3.567, SD= 0.9575). Respondents perceived the statement “I use WeChat health information to compare my own ideas to what doctors and health experts said” (Mean= 3.73, SD= 0.944) at the high level, followed by other statements in the medium levels, including “I use WeChat health information, because doctors and health expert are like people I knew” (Mean= 3.56, SD= 1.205), and “I use WeChat health information, because doctors and health experts gave me a human-like quality service about the health information” (Mean= 3.4, SD= 1.008), respectively.

Table 4.1.3: Means and standard deviation on the samples' gratification sought for

Parasocial interaction about health information via WeChat

Gratification sought about health information via WeChat	Mean	Std. Deviation	Interpretation
Gratification sought for Parasocial interaction			
1. I use WeChat health information, because doctors and health experts gave me a human-like quality service about the health information.	3.40	1.008	Medium level
2. I use WeChat health information to compare my own ideas to what doctors and health experts said.	3.73	0.944	High level
3. I use WeChat health information, because doctors and health expert are like people I knew.	3.56	1.205	Medium level
Total	3.567	0.9575	Medium level

As shown in Table 4.1.4 the descriptive analysis found that majority of the respondents agreed with the statements (Mean= 3.707, SD= 1.16556). When examining each statement, respondents agree with the statement, "I use WeChat health information to help me make up my mind about the important issues of the day" with the highest mean (Mean= 3.82, SD= 1.282), followed by the statement, "I use WeChat health information to find out about health issues affecting people like myself" (Mean= 3.67, SD= 1.169) and "I used WeChat to find out what kind of health information are important nowadays" (Mean= 3.62, SD= 1.328), respectively.

When examining the levels of gratification sought for decision utility, majority of the respondents had high level of gratification sought for decision utility (Mean= 3.707, SD= 1.16556). Respondents perceived the statement “I use WeChat health information to help me make up my mind about the important issues of the day” (Mean= 3.82, SD= 1.282) at the high level, followed by other statements in the medium levels, including “I use WeChat health information to find out about health issues affecting people like myself” (Mean= 3.67, SD= 1.169), and “I used WeChat to find out what kind of health information are important nowadays” (Mean= 3.62, SD= 1.328), respectively.

Table 4.1.4: Means and standard deviation on the samples’ gratification sought for

Decision utility about health information via WeChat

Gratification sought about health information via WeChat	Mean	Std. Deviation	Interpretation
Gratification sought for Decision utility			
1. I used WeChat to find out what kind of health information are important nowadays.	3.62	1.328	Medium level
2. I use WeChat health information to help me make up my mind about the important issues of the day.	3.82	1.282	High level
3. I use WeChat health information to find out about health issues affecting people like myself.	3.67	1.169	Medium level
Total	3.707	1.16556	High level

As shown in Table 4.1.5 the descriptive analysis found that majority of the respondents agreed with the statements (Mean= 3.553, SD= 1.041). When examining

each statement, respondents agree with the statement, “I use WeChat health to give me interesting things to talk about” with the highest mean (Mean= 3.7, SD= 1.066), followed by the statement, “I use WeChat health information to support my viewpoints to other people” (Mean= 3.62, SD= 1.083) and “I use WeChat health information so I can pass the information on to other people” (Mean= 3.35, SD= 1.313), respectively.

When examining the levels of gratification sought for interpersonal utility, majority of the respondents had medium level of gratification sought for interpersonal utility (Mean= 3.553, SD= 1.041). Respondents perceived the statement “I use WeChat health to give me interesting things to talk about” (Mean= 3.7, SD= 1.066) at the high level, followed by other statements in the medium levels, including “I use WeChat health information to support my viewpoints to other people” (Mean= 3.62, SD= 1.083), and “I use WeChat health information so I can pass the information on to other people” (Mean= 3.35, SD= 1.313), respectively.

Table 4.1.5: Means and standard deviation on the samples' gratification sought for

Interpersonal utility about health information via WeChat

Gratification sought about health information via WeChat	Mean	Std. Deviation	Interpretation
Gratification sought for Interpersonal utility			
1. I use WeChat health information to support my viewpoints to other people.	3.62	1.083	Medium level
2. I use WeChat health information so I can pass the information on to other people.	3.35	1.313	Medium level
3. I use WeChat health to give me interesting things to talk about.	3.7	1.066	High level
Total	3.553	1.041	Medium level

As shown in Table 4.1.6 the descriptive analysis found that majority of the respondents agreed with the statements (Mean= 3.528, SD= 1.12396). When examining each statement, respondents agree with the statement, "I use WeChat health information, because it is stimulating" with the highest mean (Mean= 3.65, SD=1.163), followed by the statement, "I use WeChat health information, because it is often entertaining" (Mean= 3.52, SD= 1.19) and "I use WeChat health information, because it is exciting" (Mean= 3.41, SD= 1.257), respectively.

When examining the levels of gratification sought for entertainment, majority of the respondents had medium level of gratification sought for entertainment (Mean= 3.528, SD= 1.12396). Respondents perceived the statement "I use WeChat health information, because it is stimulating" (Mean= 3.65, SD=1.163), "I use WeChat health information,

because it is often entertaining” (Mean= 3.52, SD= 1.19) and “I use WeChat health information, because it is exciting” (Mean= 3.41, SD= 1.257) at the medium level, respectively.

Table 4.1.6: Means and standard deviation on the samples’ gratification sought for entertainment about health information via WeChat

Gratification sought about health information via WeChat	Mean	Std. Deviation	Interpretation
Gratification sought for Entertainment			
1. I use WeChat health information, because it is often entertaining.	3.52	1.19	Medium level
2. I use WeChat health information, because it is stimulating.	3.65	1.163	Medium level
3. I use WeChat health information, because it is exciting.	3.41	1.257	Medium level
Total	3.528	1.12396	Medium level agree

As shown in Table 4.1.7 the descriptive analysis found that majority of the respondents agreed with the statements (Mean= 3.587, SD= 0.99462). When examining each statement, respondents agree with the statement, “decision utility” with the highest mean (Mean= 3.707, SD= 1.16556), followed byt “general information seeking” (Mean= 3.582, SD= 0.95458), “parasocial interaction” (Mean= 3.567, SD= 0.9575), “interpersonal utility” (Mean= 3.553, SD= 1.041) and “entertainment” (Mean= 3.528, SD= 1.12396), respectively.

When examining the levels of gratification sought, majority of the respondents had medium level of gratification sought (Mean= 3.587, SD= 0.99462). Respondents perceived the statement “decision utility” (Mean= 3.707, SD= 1.16556) at the high level, followed by other statements in the medium levels, including “general information seeking” (Mean= 3.582, SD= 0.95458), “parasocial interaction” (Mean= 3.567, SD= 0.9575), “interpersonal utility” (Mean= 3.553, SD= 1.041) and “entertainment” (Mean= 3.528, SD= 1.12396), respectively.

Table 4.1.7: Means and standard deviation on the samples’ gratification sought

about health information via WeChat

Gratification sought about health information via WeChat	Mean	Std. Deviation	Interpretation
Total mean of Gratification sought	3.587	0.99462	Medium level
General information seeking	3.582	0.95458	Medium level
Parasocial interaction	3.567	0.9575	Medium level
Decision utility	3.707	1.16556	High level
Interpersonal utility	3.553	1.041	Medium level
Entertainment	3.528	1.12396	Medium level

To analyze the mean of gratification obtained about health information via WeChat among Chinese elderly, the mean range was divided into 3 levels as follows:

Table 4.1.8: Data Analysis for gratification obtained about health information via

WeChat

Opinion toward the statement	Score	Criteria	Meaning
Strongly agree with the statement	5	4.21 – 5.00	Strongly agree
Agree with the statement	4	3.41 – 4.20	Agree
Neutral with the statement	3	2.61 – 3.40	Neutral
Disagree with the statement	2	1.81 – 2.60	Disagree
Strongly Disagree with the statement	1	1.00 – 1.80	Strongly disagree

Table 4.1.8.1: Analyzing the degree of gratification obtained for WeChat

Criteria	Meaning
3.68 – 5.00	High level
2.34 – 3.67	Medium level
1.00 – 2.33	Low level

As shown in Table 4.1.9 the descriptive analysis found that majority of the respondents agreed with the statements (Mean= 3.685, SD= 0.95059). When examining each statement, respondents agreed with the statement, “I were not surprised by unexpected health disease that might happen in my life” with the highest mean (Mean= 3.89, SD= 0.984), followed by statement, “I got accurate information about current issues in health information and events in WeChat health subscription” (Mean= 3.58, SD= 1.053) and “I believe that the health information in WeChat are trustworthy and reliable” (Mean= 3.58, SD= 1.1), respectively.

When examining the levels of gratification obtained for general information seeking, majority of the respondents had high level of gratification obtained for general information seeking (Mean= 3.685, SD= 0.95059). Respondents perceived the statement, “I were not surprised by unexpected health disease that might happen in my life” (Mean= 3.89, SD= 0.984) at the high level, followed by other statements in the medium levels, including “I got accurate information about current issues in health information and events in WeChat health subscription” (Mean= 3.58, SD= 1.053) and “I believe that the health information in WeChat are trustworthy and reliable” (Mean= 3.58, SD= 1.1), respectively.

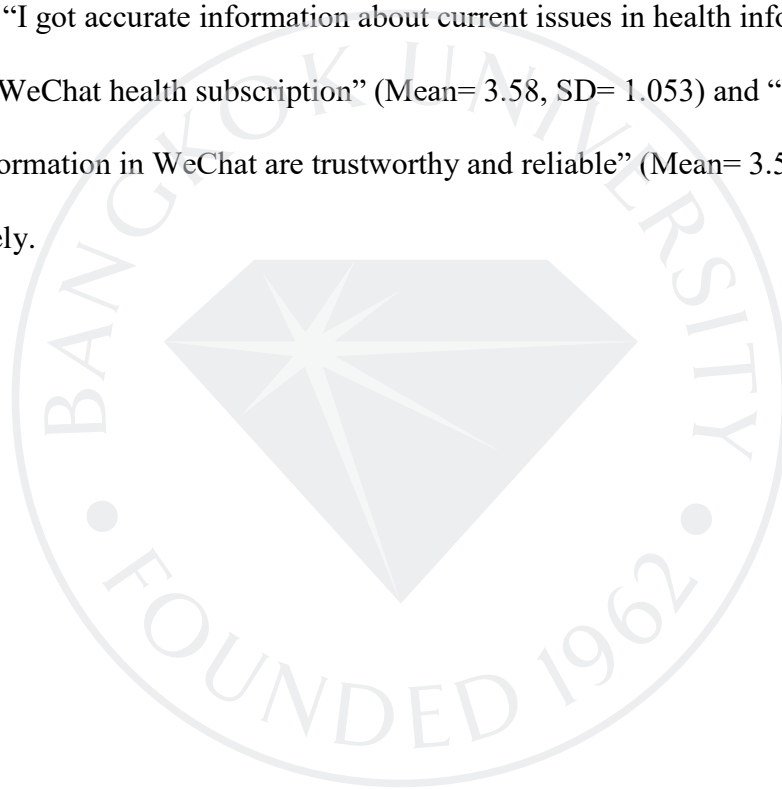


Table 4.1.9: Means and standard deviation on the samples' gratification obtained for general information seeking about health information via WeChat

Gratification obtained about health information via WeChat	Mean	Std. Deviation	Interpretation
<u>Gratification obtained for General information seeking</u>			
1. I got accurate information about current issues in health information and events in WeChat health subscription.	3.58	1.053	Medium level
2. I were not surprised by unexpected health disease that might happen in my life.	3.89	0.984	High level
3. I believe that the health information in WeChat are trustworthy and reliable.	3.58	1.1	Medium level
Total	3.685	0.95059	High level

As shown in Table 4.1.10 the descriptive analysis found that majority of the respondents agreed with the statements (Mean= 3.6367, SD= 0.9715). When examining each statement, respondents agree with the statement, "I compared my own ideas to what doctors and health experts say" with the highest mean (Mean= 3.77, SD= 0.921), followed by the statement, "I perceived that doctors and health experts in WeChat are like people I knew" (Mean= 3.62, SD= 1.189) and "I perceived that health information provided by doctors and health experts in WeChat health information are real and human-like" (Mean= 3.52, SD= 1.089), respectively.

When examining the levels of gratification obtained for parasocial interaction, majority of the respondents had medium level of gratification obtained for parasocial

interaction (Mean= 3.6367, SD= 0.9715). Respondents perceived the statement “I compared my own ideas to what doctors and health experts say” (Mean= 3.77, SD= 0.921) at the high level, followed by other statements in the medium levels, including “I perceived that doctors and health experts in WeChat are like people I knew” (Mean= 3.62, SD= 1.189) and “I perceived that health information provided by doctors and health experts in WeChat health information are real and human-like” (Mean= 3.52, SD= 1.089), respectively.

Table 4.1.10: Means and standard deviation on the samples’ gratification obtained for parasocial interaction about health information via WeChat

Gratification obtained about health information via WeChat	Mean	Std. Deviation	Interpretation
Gratification obtained for Parasocial interaction			
1. I perceived that health information provided by doctors and health experts in WeChat health information are real and human-like.	3.52	1.089	Medium level
2. I compared my own ideas to what doctors and health experts say.	3.77	0.921	High level
3. I perceived that doctors and health experts in WeChat are like people I knew.	3.62	1.189	Medium level
Total	3.6367	0.9715	Medium level

As shown in Table 4.1.11 the descriptive analysis found that majority of the respondents agreed with the statements (Mean= 3.74, SD= 1.16105). When examining each statement, respondents agree with the statement, “I learnt about what kind of health information is important to me nowadays from WeChat health information” with the highest mean (Mean= 3.78, SD= 1.37), followed by the statement, “WeChat health information help me make up my mind about the important issues of the day” (Mean= 3.77, SD= 1.26) and “I found out about health issues affecting my life” (Mean= 3.67, SD= 1.157), respectively.

When examining the levels of gratification obtained for decision utility, majority of the respondents had high level of gratification obtained for decision utility (Mean= 3.74, SD= 1.16105). Respondents perceived the statements “I learnt about what kind of health information is important to me nowadays from WeChat health information” (Mean= 3.78, SD= 1.37) and “WeChat health information help me make up my mind about the important issues of the day” (Mean= 3.77, SD= 1.26) at the high level, followed by other statement in the medium levels, including “I found out about health issues affecting my life” (Mean= 3.67, SD= 1.157), respectively.

Table 4.1.11: Means and standard deviation on the samples' gratification obtained for decision utility about health information via WeChat

Gratification obtained about health information via WeChat	Mean	Std. Deviation	Interpretation
Gratification obtained for Decision utility			
1. I learnt about what kind of health information is important to me nowadays from WeChat health information.	3.78	1.37	High level
2. WeChat health information help me make up my mind about the important issues of the day.	3.77	1.26	High level
3. I found out about health issues affecting my life.	3.67	1.157	Medium level
Total	3.74	1.16105	High level

As shown in Table 4.1.12 the descriptive analysis found that majority of the respondents agreed with the statements (Mean= 3.59, SD= 1.03091). When examining each statement, respondents agree with the statement, "WeChat health information supports my viewpoints to other people" with the highest mean (Mean= 3.72, SD= 1.166), followed by the statement, "WeChat health provides me interesting things to talk about with other people" (Mean= 3.66, SD= 1.086) and "WeChat health information supports my viewpoints to other people" (Mean= 3.4, SD= 1.215), respectively.

When examining the levels of gratification obtained for interpersonal utility, majority of the respondents had medium level of gratification obtained for interpersonal utility (Mean= 3.59, SD= 1.03091). Respondents perceived the statements "WeChat

health information supports my viewpoints to other people” (Mean= 3.72, SD= 1.166) at the high level, followed by other statements in the medium levels, including “WeChat health provides me interesting things to talk about with other people” (Mean= 3.66, SD= 1.086) and “WeChat health information supports my viewpoints to other people” (Mean= 3.4, SD= 1.215), respectively.

Table 4.1.12: Means and standard deviation on the samples’ gratification obtained for Interpersonal utility about health information via WeChat

Gratification obtained about health information via WeChat	Mean	Std. Deviation	Interpretation
Gratification obtained for Interpersonal utility			
1. WeChat health information supports my viewpoints to other people.	3.72	1.166	High level
2. I can pass the health information on to other people.	3.4	1.215	Medium level
3. WeChat health provides me interesting things to talk about with other people.	3.66	1.086	Medium level
Total	3.59	1.03091	Medium level

As shown in Table 4.1.13 the descriptive analysis found that majority of the respondents agreed with the statements (Mean= 3.575, SD= 1.10627). When examining each statement, respondents agree with the statement, “WeChat health information stimulate my interest in health issue” with the highest mean (Mean= 3.66, SD= 1.132),

followed by the statement, “WeChat health information entertain me” (Mean= 3.61, SD= 1.264) and “WeChat health information provide exciting information that I don’t know before” (Mean= 3.46, SD= 1.155), respectively.

When examining the levels of gratification obtained for entertainment, majority of the respondents had medium level of gratification obtained for entertainment (Mean= 3.575, SD= 1.10627). Respondents perceived the statements “WeChat health information stimulate my interest in health issue” (Mean= 3.66, SD= 1.132), “WeChat health information entertain me” (Mean= 3.61, SD= 1.264) and “WeChat health information provide exciting information that I don’t know before” (Mean= 3.46, SD= 1.155) at the medium level, respectively.

Table 4.1.13: Means and standard deviation on the samples’ gratification obtained for Entertainment about health information via WeChat

Gratification obtained about health information via WeChat	Mean	Std. Deviation	Interpretation
Gratification obtained for Entertainment			
1. WeChat health information entertain me.	3.61	1.264	Medium level
2. WeChat health information stimulate my interest in health issue.	3.66	1.132	Medium level
3. WeChat health information provide exciting information that I don’t know before.	3.46	1.155	Medium level
Total	3.575	1.10627	Medium level

As shown in Table 4.1.14 the descriptive analysis found that majority of the respondents agreed with the statements (Mean= 3.6453, SD= 0.99405). When examining each statement, respondents agree with the statement, “decision utility” with the highest mean (Mean= 3.74, SD= 1.16105), followed by “general information seeking” (Mean= 3.685, SD= 0.95059), “parasocial interaction” (Mean= 3.6367, SD= 0.9715), “interpersonal utility” (Mean= 3.59, SD= 1.03091) and “entertainment” (Mean= 3.575, SD= 1.10627), respectively.

When examining the levels of gratification obtained, majority of the respondents had medium level of gratification obtained (Mean= 3.6453, SD= 0.99405). Respondents perceived the statements “decision utility” (Mean= 3.74, SD= 1.16105) and “general information seeking” (Mean= 3.685, SD= 0.95059), at the high level, followed by other statements in the medium levels, including “parasocial interaction” (Mean= 3.6367, SD= 0.9715), “interpersonal utility” (Mean= 3.59, SD= 1.03091) and “entertainment” (Mean= 3.575, SD= 1.10627), respectively.

Table 4.1.14: Means and standard deviation on the samples' gratification obtained about health information via WeChat

Gratification obtained about health information via WeChat	Mean	Std. Deviation	Interpretation
Total mean of Gratification obtained	3.6453	0.99405	Medium level
General information seeking	3.685	0.95059	High level
Parasocial interaction	3.6367	0.9715	Medium level
Decision utility	3.74	1.16105	High level
Interpersonal utility	3.59	1.03091	Medium level
Entertainment	3.575	1.10627	Medium level

To analyze the mean of small group relational satisfaction after using WeChat health information, the mean range was divided into 3 levels as follows:

Table 4.1.15: Data analysis for small group relational satisfaction about health information via WeChat

Opinion toward the statement	Score	Criteria	Meaning
Strongly agree with the statement	5	4.21 – 5.00	Strongly agree
Agree with the statement	4	3.41 – 4.20	Agree
Neutral with the statement	3	2.61 – 3.40	Neutral
Disagree with the statement	2	1.81 – 2.60	Disagree
Strongly Disagree with the statement	1	1.00 – 1.80	Strongly disagree

Table 4.1.15.1: Analyzing the degree of small group relational satisfaction about health information via WeChat

Criteria	Meaning
3.68 – 5.00	High level
2.34 – 3.67	Medium level
1.00 – 2.33	Low level

As shown in Table 4.1.16 the descriptive analysis found that majority of the respondents agreed with the statements (Mean= 3.7021, SD= 0.94). When examining each statement, respondents agreed with the statement, “We can say anything in this group ‘WeChat health information’ without worrying” with the highest mean (Mean= 3.94, SD= 1.195), followed by the statements, “The members in WeChat health information make me feel a part of the group” (Mean= 3.85, SD= 1.008) and “The members in WeChat health information make feel liked” (Mean= 3.80, SD= 0.94), respectively. The lowest mean of them is the statement “I do not feel part of the group in WeChat health information” (Mean= 3.45, SD= 1.092), respectively.

When examining the levels of small group relational satisfaction, majority of the respondents had high level of means and standard deviation on the samples’ small group relational satisfaction (Mean= 3.7021, SD= 0.94). Respondents perceived the statements, “We can say anything in this group ‘WeChat health information’ without worrying” (Mean= 3.94, SD= 1.195), “The members in WeChat health information make me feel a part of the group” (Mean= 3.85, SD= 1.008) and “The members in WeChat health information make feel liked” (Mean= 3.80, SD= 0.94) at the high level, followed by other statements in the medium levels, the lowest mean of them is the statement “I do not feel

part of the group in WeChat health information” (Mean= 3.45, SD= 1.092), respectively.

Table 4.1.16: Means and standard deviation on the samples’ Small group relational satisfaction about health information via WeChat

Small group relational satisfaction about health information via WeChat	Mean	Std. Deviation	Interpretation
1. The doctors and health experts in WeChat spend time getting to know me.	3.54	1.016	Medium level
2. The members in WeChat health information make me feel a part of the group.	3.85	1.008	High level
3. I look forward to joining the group meeting every day.	3.49	1.116	Medium level
4. I do not feel part of the group in WeChat health information.	3.45	1.092	Medium level
5. The members in WeChat health information make feel liked.	3.8	0.94	High level
6. My absence would not matter to the group in WeChat health information.	3.7	1.16	High level
7. I can trust doctors and health experts in WeChat health information.	3.79	1.298	High level
8. We can say anything in this group “WeChat health information” without worrying.	3.94	1.195	High level
9. I prefer not to spend time with members of the group “WeChat health information”	3.79	1.149	High level
10. The members in this group “WeChat health information” made me feel involved in the group.	3.68	1.05	High level

(Continued)

Table 4.1.16 (Continued): Means and standard deviation on the samples' Small group relational satisfaction about health information via WeChat

11. Some of the group members could become my friends.	3.65	1.189	Medium level
12. The group atmosphere in WeChat health information is comfortable.	3.73	1.036	High level
Total	3.7021	0.94068	High level

4.2 Hypotheses Testing

Hypothesis 1: Chinese elderly who have different personal data (gender, age, personal income per month, educational background, frequency of using WeChat health information, stickiness to WeChat health information) will have significant different gratification sought about health information via WeChat.

One-Way ANOVA was conducted to examine whether personal data will have significantly different gratification sought about health information via WeChat. The findings indicated a significant relationship between educational background, frequency of using WeChat health information and gratification sought about health information via WeChat at statistical significance of .05 level and .01.

Hypothesis 1.1: Chinese elderly who have different gender will have significantly different gratification sought about health information via WeChat.

Hypothesis 1.2: Chinese elderly who have different age will have significantly different gratification sought about health information via WeChat.

Hypothesis 1.3: Chinese elderly who have different personal income per month will have significantly different gratification sought about health information via WeChat.

Hypothesis 1.4: Chinese elderly who have different educational background will have significantly different gratification sought about health information via WeChat.

Hypothesis 1.5: Chinese elderly who have different frequency of using WeChat health information will have significantly different gratification sought about health information via WeChat.

Hypothesis 1.6: Chinese elderly who have different stickiness to WeChat health information will have significantly different gratification sought about health information via WeChat.

As shown in Table 4.2.1, Analysis of Variance revealed that Chinese elderly who have different educational background had significant gratification sought for interpersonal utility about health information via WeChat ($F_{(194, 5)} = 2.350^{**}$, $p < .05$). Analysis of Variance revealed that Chinese elderly who have different educational background had significant different gratification sought for decision utility ($F_{(194, 5)} = 2.026^{***}$, $p < .10$) and entertainment ($F_{(194, 5)} = 1.981^{***}$, $p < .10$) about health information via WeChat, respectively. However, the results revealed that educational background did not significant influence general information seeking ($(F_{(194, 5)} = 1.839$, $p > .05)$), parasocial interaction ($F_{(194, 5)} = 1.137$, $p > .05$).

Table 4.2.1: One-way ANOVA Analysis of the relationship between educational

background and gratification sought about health information via WeChat.

Gratification sought for WeChat Health Information		Sum of Squares	df	Mean Square	F	Sig.
General information seeking	Between Groups	8.204	5	1.641	1.839	0.107
	Within Groups	173.129	194	0.892		
	Total	181.333	199			
Parasocial interaction	Between Groups	5.193	5	1.039	1.137	0.342
	Within Groups	177.252	194	0.914		
	Total	182.444	199			
Decision utility	Between Groups	13.134	5	2.627	1.981***	0.083
	Within Groups	257.212	194	1.326		
	Total	270.347	199			
Interpersonal utility	Between Groups	12.313	5	2.463	2.350**	0.042
	Within Groups	203.34	194	1.048		
	Total	215.653	199			
Entertainment	Between Groups	12.478	5	2.496	2.026***	0.077
	Within Groups	238.917	194	1.232		
	Total	251.395	199			

Note: ** $p < .01$, *** $p < .001$

As shown in Table 4.2.2, Analysis of Variance revealed that Chinese elderly who have different frequency of using WeChat health information had significant gratification sought for entertainment about health information via WeChat ($F_{(195, 4)} = 2.977^{**}$, $p < .05$). Analysis of Variance revealed that Chinese elderly who have different frequency of using WeChat health information had significant gratification sought for decision utility ($F_{(195, 4)} = 2.931^{**}$, $p < .05$) and interpersonal utility ($F_{(195, 4)} = 2.589^{**}$, $p < .05$) about health information via WeChat, respectively. However, the results revealed that frequency of using WeChat health information did not significant influence general information

seeking ($F_{(195, 4)} = 1.458, p > .05$), parasocial interaction ($F_{(195, 4)} = 1.149, p > .05$). Thus, hypothesis H1 was partially accepted.

Table 4.2.2: One-way ANOVA Analysis of the relationship between frequency of using WeChat health information and gratification sought about health information via WeChat

Gratification sought for WeChat Health Information		Sum of Squares	df	Mean Square	F	Sig.
General information seeking	Between Groups	5.267	4	1.317	1.458	0.216
	Within Groups	176.066	195	0.903		
	Total	181.333	199			
Parasocial interaction	Between Groups	4.2	4	1.05	1.149	0.335
	Within Groups	178.245	195	0.914		
	Total	182.444	199			
Decision utility	Between Groups	15.333	4	3.833	2.931**	0.022
	Within Groups	255.014	195	1.308		
	Total	270.347	199			
Interpersonal utility	Between Groups	10.877	4	2.719	2.589**	0.038
	Within Groups	204.777	195	1.05		
	Total	215.653	199			
Entertainment	Between Groups	14.47	4	3.618	2.977**	0.02
	Within Groups	236.925	195	1.215		
	Total	251.395	199			

Note: ** $p < .01$, *** $p < .001$

Hypothesis 2: Chinese elderly who have different personal data (gender, age, personal income per month, educational background, frequency of using WeChat health information, stickiness to WeChat health information) will have significant different gratification obtained about health information via WeChat.

One-Way ANOVA was conducted to examine which personal data will have significant different gratification obtained about health information via WeChat. The

findings indicated a significant relationship between age, frequency of using WeChat health information and gratification obtained about health information via WeChat at statistical significance of .05 level and .10.

Hypothesis 2.1: Chinese elderly who have different gender will have significant different gratification obtained about health information via WeChat.

Hypothesis 2.2: Chinese elderly who have different age will have significant different gratification obtained about health information via WeChat.

Hypothesis 2.3: Chinese elderly who have different personal income per month will have significant different gratification obtained about health information via WeChat.

Hypothesis 2.4: Chinese elderly who have different educational background will have significant different gratification obtained about health information via WeChat.

Hypothesis 2.5: Chinese elderly who have different frequency of using WeChat health information will have significant different gratification obtained about health information via WeChat.

Hypothesis 2.6: Chinese elderly who have different stickiness to WeChat health information will have significant different gratification obtained about health information via WeChat.

As shown in Table 4.2.3, One-way ANOVA Analysis revealed that Chinese elderly who have different age had significant gratification obtained for general information seeking about health information via WeChat ($F_{(194, 5)} = 2.801^{**}$, $p < .05$).

Analysis of Variance revealed that Chinese elderly who have different age had significant gratification obtained for entertainment ($F_{(194, 5)} = 2.507^{**}$, $p < .05$) about health information via WeChat. However, the results revealed that age did not significant influence parasocial interaction ($F_{(194, 5)} = 1.853$, $p > .05$), decision utility ($F_{(194, 5)} = 1.843$, $p > .05$), interpersonal utility ($F_{(194, 5)} = 1.626$, $p > .05$).

Table 4.2.3: One-way ANOVA Analysis of the relationship between age and gratification obtained about health information via WeChat.

Gratification obtained for WeChat Health Information		Sum of Squares	df	Mean Square	F	Sig.
General information seeking	Between Groups	12.107	5	2.421	2.801**	0.018
	Within Groups	167.715	194	0.865		
	Total	179.822	199			
Parasocial interaction	Between Groups	8.56	5	1.712	1.853	0.104
	Within Groups	179.26	194	0.924		
	Total	187.82	199			
Decision utility	Between Groups	12.166	5	2.433	1.843	0.106
	Within Groups	256.092	194	1.32		
	Total	268.258	199			
Interpersonal utility	Between Groups	8.508	5	1.702	1.626	0.155
	Within Groups	202.983	194	1.046		
	Total	211.491	199			
Entertainment	Between Groups	14.78	5	2.956	2.507**	0.032
	Within Groups	228.762	194	1.179		
	Total	243.542	199			

Note: ** $p < .01$, *** $p < .001$

As shown in Table 4.2.4, One-way ANOVA Analysis revealed that Chinese elderly who have different frequency of using WeChat health information had significant gratification obtained for general information seeking about health information via WeChat ($F_{(195, 4)} = 2.984^{**}$, $p < .05$). Analysis of Variance revealed that Chinese elderly who have different frequency of using WeChat health information had significant gratification obtained for decision utility ($F_{(194, 5)} = 2.110^{**}$, $p < .10$) about health information via WeChat. However, the results revealed that frequency of using WeChat health information did not significant influence interpersonal utility ($F_{(195, 4)} = 1.666$, $p > .05$), entertainment ($F_{(195, 4)} = 1.522$, $p > .05$), parasocial interaction ($F_{(195, 4)} = 1.171$, $p > .05$).

Table 4.2.4: One-way ANOVA Analysis of the relationship between frequency of using WeChat health information and gratification obtained about health information via WeChat.

Gratification obtained for WeChat Health Information		Sum of Squares	df	Mean Square	F	Sig.
General information seeking	Between Groups	10.372	4	2.593	2.984**	0.02
	Within Groups	169.449	195	0.869		
	Total	179.822	199			
Parasocial interaction	Between Groups	4.406	4	1.101	1.171	0.325
	Within Groups	183.414	195	0.941		
	Total	187.82	199			
Decision utility	Between Groups	11.13	4	2.783	2.110***	0.081
	Within Groups	257.128	195	1.319		
	Total	268.258	199			

(Continued)

Table 4.2.4 (Continued): One-way ANOVA Analysis of the relationship between frequency of using WeChat health information and gratification obtained about health information via WeChat.

Interpersonal utility	Between Groups	6.99	4	1.748	1.666	0.159
	Within Groups	204.501	195	1.049		
	Total	211.491	199			
Entertainment	Between Groups	7.375	4	1.844	1.522	0.197
	Within Groups	236.167	195	1.211		
	Total	243.542	199			

Note: ** $p < .01$, *** $p < .001$

LSD analysis in Table 4.2.5 found that Chinese elderly WeChat users who spent less than 30 minutes for each searching and browsing (very low stickiness) didn't have significant different gratification obtained for general information seeking from those who have low stickiness ($I-J = .11466$, $p > .05$), medium stickiness ($I-J = -.21707$, $p > .05$), stickiness ($I-J = .08386$, $p > .05$) and very high stickiness ($I-J = -.03188$, $p > .05$). Chinese elderly WeChat users who spent more than 30 minutes to 1 hour for each searching and browsing (Low stickiness) didn't have significant different gratification obtained for general information seeking from those who have very low stickiness ($I-J = -.11466$, $p > .05$), medium stickiness ($I-J = -.33172$, $p > .05$), stickiness ($I-J = -.03080$, $p > .05$) and very high stickiness ($I-J = -.14654$, $p > .05$). Chinese elderly WeChat users who spent more than 1 hour to 2 hours for each searching and browsing (medium stickiness) didn't have significant different gratification obtained for general information seeking from those who have very low stickiness ($I-J = .21707$, $p > .05$), low stickiness ($I-J = .33172$, $p > .05$), stickiness ($I-J = .30093$, $p > .05$) and very high stickiness ($I-J = .18519$, $p > .05$). Chinese elderly WeChat users who spent more than 3 hours for each searching and

browsing (stickiness) didn't have significant different gratification obtained for general information seeking from those who have very low stickiness ($I-J = -.08386, p > .05$), low stickiness ($I-J = .03080, p > .05$), medium stickiness ($I-J = -.30093, p > .05$) and very high stickiness ($I-J = -.11574, p > .05$). Chinese elderly WeChat users who spent more than 4 hours or more for each searching and browsing (very high stickiness) didn't have significant different gratification obtained for general information seeking from those who have very low stickiness ($I-J = .03188, p > .05$), low stickiness ($I-J = .14654, p > .05$), medium stickiness ($I-J = -.18519, p > .05$) and stickiness ($I-J = .11574, p > .05$).

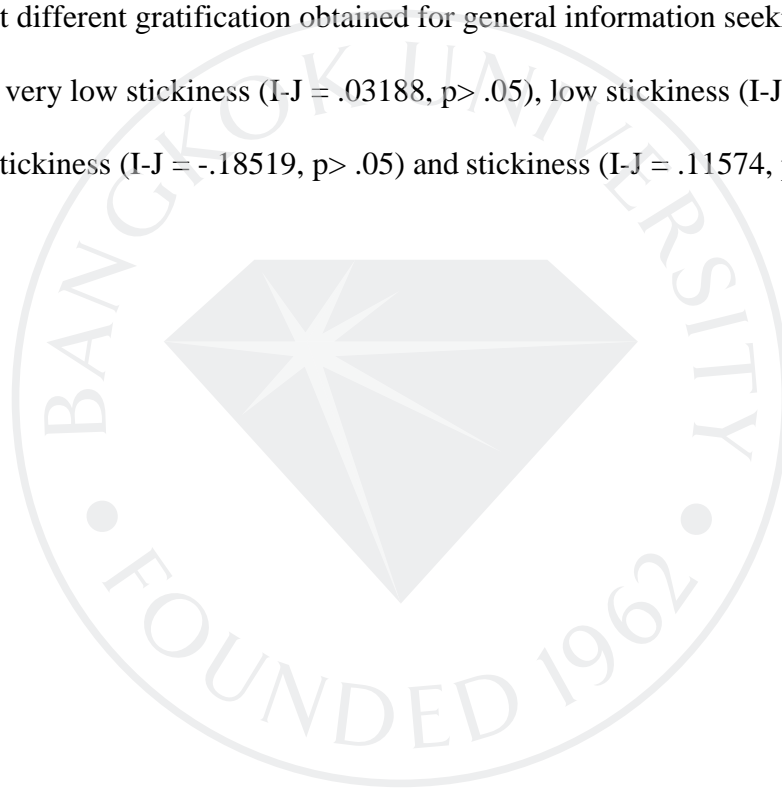


Table 4.2.5: LSD analysis for testing the relationship between gratification sought and gratification obtained for general information seeking about health information via WeChat among Chinese elderly

Dependent Variable	(I) How long do you spend time on searching and browsing health information through WeChat each time?	(J) How long do you spend time on searching and browsing health information through WeChat each time?	Mean Difference (I-J)	Std. Error	p
Gratification obtained General information seeking	Very low stickiness	Low stickiness	0.11466	0.15745	0.467
		Medium stickiness	-0.21707	0.24957	0.385
		Stickiness	0.08386	0.26196	0.749
		Very high stickiness	-0.03188	0.24957	0.898
	Low stickiness	Very low stickiness	-0.11466	0.15745	0.467
		Medium stickiness	-0.33172	0.2529	0.191
		Stickiness	-0.0308	0.26514	0.908
		Very high stickiness	-0.14654	0.2529	0.563
	Medium stickiness	Very low stickiness	0.21707	0.24957	0.385
		Low stickiness	0.33172	0.2529	0.191
		Stickiness	0.30093	0.32832	0.361
		Very high stickiness	0.18519	0.31852	0.562
	Stickiness	Very low stickiness	-0.08386	0.26196	0.749
		Low stickiness	0.0308	0.26514	0.908
		Medium stickiness	-0.30093	0.32832	0.361
		Very high stickiness	-0.11574	0.32832	0.725
Very high stickiness	Very low stickiness	0.03188	0.24957	0.898	
	Low stickiness	0.14654	0.2529	0.563	
	Medium stickiness	-0.18519	0.31852	0.562	
		Stickiness	0.11574	0.32832	0.725

LSD analysis in Table 4.2.6 found that Chinese elderly WeChat users who spent less than 30 minutes for each searching and browsing (very low stickiness) didn't have

significant different gratification obtained for decision utility from those who have low stickiness (I-J = -.03565, $p > .05$), medium stickiness (I-J = -.24660, $p > .05$), stickiness (I-J = -.13318, $p > .05$) and very high stickiness (I-J = -.17253, $p > .05$). Chinese elderly WeChat users who spent more than 30 minutes to 1 hour for each searching and browsing (low stickiness) didn't have significant different gratification obtained for decision utility from those who have very low stickiness (I-J = .03565, $p > .05$), medium stickiness (I-J = .21095, $p > .05$), stickiness (I-J = .11343, $p > .05$) and very high stickiness (I-J = .07407, $p > .05$). Chinese elderly WeChat users who spent more than 1 hour to 2 hours for each searching and browsing (medium stickiness) didn't have significant different gratification obtained for decision utility from those who have very low stickiness (I-J = .24660, $p > .05$), low stickiness (I-J = .21095, $p > .05$), stickiness (I-J = .11343, $p > .05$) and very high stickiness (I-J = .11343, $p > .05$). Chinese elderly WeChat users who spent more than 3 hours for each searching and browsing (stickiness) didn't have significant different gratification obtained for decision utility from those who have very low stickiness (I-J = .13318, $p > .05$), low stickiness (I-J = .09752, $p > .05$), medium stickiness (I-J = -.11343, $p > .05$) and very high stickiness (I-J = -.03935, $p > .05$). Chinese elderly WeChat users who spent more than 4 hours or more for each searching and browsing (very high stickiness) didn't have significant different gratification obtained for decision utility from those who have very low stickiness (I-J = .17253, $p > .05$), low stickiness (I-J = .13688, $p > .05$), medium stickiness (I-J = -.07407, $p > .05$) and stickiness (I-J = .03935, $p > .05$).

Table 4.2.6: LSD analysis for testing the relationship between gratification sought and gratification obtained for decision utility about health information via

WeChat among Chinese elderly

Dependent Variable	(I) How long do you spend time on searching and browsing health information through WeChat each time?	(J) How long do you spend time on searching and browsing health information through WeChat each time?	Mean Difference (I-J)	Std. Error	P
Gratification obtained Decision utility	Very low stickiness	Low stickiness	-0.03565	0.19281	0.853
		Medium stickiness	-0.2466	0.30561	0.421
		Stickiness	-0.13318	0.32079	0.678
		Very high stickiness	-0.17253	0.30561	0.573
	Low stickiness	Very low stickiness	0.03565	0.19281	0.853
		Medium stickiness	-0.21095	0.30969	0.497
		Stickiness	-0.09752	0.32468	0.764
		Very high stickiness	-0.13688	0.30969	0.659
	Medium stickiness	Very low stickiness	0.2466	0.30561	0.421
		Low stickiness	0.21095	0.30969	0.497
		Stickiness	0.11343	0.40205	0.778
		Very high stickiness	0.07407	0.39004	0.85
Stickiness	Very low stickiness	0.13318	0.32079	0.678	
	Low stickiness	0.09752	0.32468	0.764	
	Medium stickiness	-0.11343	0.40205	0.778	
	Very high stickiness	-0.03935	0.40205	0.922	
Very high stickiness	Very low stickiness	0.17253	0.30561	0.573	
	Low stickiness	0.13688	0.30969	0.659	
	Medium stickiness	-0.07407	0.39004	0.85	
	Stickiness	0.03935	0.40205	0.922	

To test **Hypothesis 3**, the analysis of Spearman's Rank Correlation in Table 4.2.7 showed that gratification sought and gratification obtained for health information via WeChat among Chinese elderly were not positively correlated. Correlation between gratification sought and gratification obtained in the low level ($r = .096$, $p > .05$). The

analysis of Spearman's Rank Correlation in Table 4.2.8 showed that gratification sought and gratification obtained for health information via WeChat among Chinese elderly were not positively correlated. **Hypothesis 3** was not established.

Table 4.2.7: Nonparametric correlations between gratification sought and gratification

		obtained	
		Gratification sought	Gratification obtained
Gratification sought		1	0.096
Gratification obtained		0.096	1

** . Correlation is significant at the 0.01 level.

Table 4.2.8: Spearman correlation between gratification sought and gratification obtained

		Gratification sought					Gratification obtained				
		General information seeking	Parasocial interaction	Decision utility	Interpersonal utility	Entertainment	General information seeking	Parasocial interaction	Decision utility	Interpersonal utility	Entertainment
Gratification sought	General information seeking	1.000	.814**	.650*	.630**	.732**	.049	.033	.030	.058	-.008
	Parasocial interaction	.814**	1.000	.673*	.679**	.762**	.007	.004	.036	.080	-.026
	Decision utility	.650**	.673**	1.000	.840**	.774**	.029	.048	.057	.054	-.007
	Interpersonal utility	.630**	.679**	.840*	1.000	.777**	.000	.009	.010	.085	.005
	Entertainment	.732**	.762**	.774*	.777**	1.000	.079	.074	.077	.107	.056
Gratification obtained	General information seeking	.049	.007	.029	.000	.079	1.000	.725**	.587*	.623**	.710**
	Parasocial interaction	.033	.004	.048	.009	.074	.725**	1.000	.697*	.699**	.805**
	Decision utility	.030	.036	.057	.010	.077	.587**	.697**	1.000	.859**	.704**
	Interpersonal utility	.058	.080	.054	.085	.107	.623**	.699**	.859*	1.000	.762**
	Entertainment	-.008	-.026	-.007	.005	.056	.710**	.805**	.704*	.762**	1.000

** . Correlation is significant at the 0.01 level.

Hypothesis 4: Gratification sought about health information via WeChat and gratification obtained about health information via WeChat among Chinese elderly are significant predictors of their relational satisfaction toward the small group communication in WeChat health communication.

As shown in table 4.2.9, Multiple Regression model indicated that gratification sought for WeChat health information are significant predictors of the relational satisfaction of small group communication in WeChat ($F = 5.735$, $p < 0.05$); however, gratification obtained for WeChat health information was not significant predictor of Chinese elderly's relational satisfaction of small group communication in WeChat ($F = 1.421$, $p > 0.05$). When examining the key constructs of gratification sought, Multiple Regression analysis found that Chinese elderly's gratification sought for decision utility ($Beta = .575^{**}$, $p < .05$) and entertainment ($Beta = -.411$, $p < .05$) about health information via WeChat among Chinese elderly are significant predictors of their relational satisfaction toward the small group communication in WeChat health communication.

Table 4.2.9: Multiple Regression Model on the degree of relational satisfaction toward the small group in WeChat as perceived by Chinese Elderly about health communication

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.258	1	6.258	7.297	.008 ^b
	Residual	169.831	198	0.858		
	Total	176.089	199			
2	Regression	9.689	2	4.844	5.735	.004 ^c
	Residual	166.401	197	0.845		
	Total	176.089	199			

a. Dependent Variable: Small group relational satisfaction

b. Predictors: (Constant), Gratification sought for decision utility

c. Predictors: (Constant), Gratification sought decision utility, Gratification sought Entertainment

Coefficients^a						
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	3.138	0.219		14.341	0
	Gratification sought Decision utility	0.152	0.056	0.189	2.701	0.008
2	(Constant)	3.195	0.219		14.591	0
	Gratification sought Decision utility	0.464	0.165	0.575	2.82	0.005
	Gratification sought Entertainment	0.344	0.171	-0.411	-2.015	0.045

a. Dependent Variable: Small group relational satisfaction

ANOVA^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.221	5	1.244	1.421	.218 ^b
	Residual	169.869	194	0.876		
	Total	176.089	199			

a. Dependent Variable: Small group relational satisfaction

b. Predictors: (Constant), Gratification obtained for Entertainment, Gratification obtained for general information seeking, Gratification obtained for Decision utility, Gratification obtained for parasocial interaction, Gratification obtained for Interpersonal utility

Coefficients ^a					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	3.351	0.3		11.177	0
Gratification obtained General information seeking	0.23	0.145	0.233	1.586	0.114
Gratification obtained Parasocial interaction	0.063	0.204	0.065	0.308	0.759
1 Gratification obtained Decision utility	0.181	0.183	0.223	0.992	0.323
Gratification obtained Interpersonal utility	-0.219	0.213	-0.24	-1.026	0.306
Gratification obtained Entertainment	-0.173	0.234	-0.203	-0.738	0.461

a. Dependent Variable: Small group relational satisfaction

CHAPTER 5

DISCUSSION

This chapter summarized the descriptive findings, hypotheses testing, and discussion on the findings of the study. In addition, this chapter provided the limitations of the study, and recommendations for application and for future research. The summary of the chapter is as follows:

5.1 Summary of Descriptive Findings and Discussion

5.2 Summary of Hypothesis Testing and Discussion

5.3 Conclusion of the Research

5.4 Recommendations for Future Application

5.5 Recommendations for Future Research

5.6 Limitations of the Study

5.1 Summary of Descriptive Findings and Discussion

With the continuous improvement of the quality of life, more and more elderly people in China actively learn to use WeChat in the process of social development. This is not only related to their well-being, but also to the future development of relevant industries.

Data from 200 participants who completed the survey were used. The descriptive findings indicated that majority of the sample were female (55.5%, n = 111), followed by samples male (44.5%, n = 89).

Majority of the sample were aged 55-59 years old (22%, n= 44), followed by samples aged 60-64 years old (20.5%, n= 41), 65-69 years old (19%, n=38), more than 79 years old (14%, n=28), 75-79 years old (13.5%, n=27) and 70-74 years old (11%, n=22), respectively.

Majority of the sample earned less than 4,000 yuan per month (54.5%, n= 109), followed by those who earned 4,001 yuan-10,000 yuan per month (30.5%, n= 61), 10,001-16,000 yuan per month (5.5%, n=11), 16,001-22,000 yuan per month (5%, n=10), higher than 26,000 yuan per month (2.5%, n=5), and 22,001-26,000 yuan per month (2%, n= 4), respectively.

Majority of the sample obtained high school (44%, n = 88), vocational School (21.5%, n =43), bachelor's degree (21%, n = 42), master's degree or higher (12%, n = 24) and others (1.5%, n =3).

Majority of the samples felt good about their health condition (40.5%, n=81), followed by those who felt very good (25%, n=50), felt neither good nor bad (20.5%, n=41), felt bad (8%, n=16) and felt very bad (6%, n=12), respectively.

Majority of the samples were serious about keeping healthy in their daily work, diet, and exercise (39%, N=78), followed by those who were very serious (32.5%, n=65), fair (13%, n=26), not very serious (9%, n=18) and not at all (6.5%, n=13), respectively.

Majority of the sample use WeChat for health information 1-2 times per day (28.5%, n=57), followed by those who use WeChat for health information 4-5 times per day (24.5%, n=49), 3-4 times per day (21%, n=42), more than 5 times per day (21%, n=42) and never use WeChat for health information (5%, n=10), respectively.

There were 200 Chinese elderly WeChat users of stickiness to WeChat health information. Majority of the sample spent less than 30 minutes for each searching and browsing WeChat health information (39.5%, n=79), followed by those who spent more than 30 minutes to 1 hour for each searching and browsing (34.5%, n=69), more than 1 hour to 2 hours for each searching and browsing (9%, n=18), more than 4 hours or more for each searching and browsing (9%, n=18) and more than 3 hours for each searching and browsing (8%, n=16), respectively.

There were 200 Chinese elderly WeChat users of health-related WeChat public accounts, the majority of the sample often join government owned health WeChat public accounts (22%, n=44), followed by those who join medical associations and health-related social organization WeChat public accounts (16.5%, n=33), health-related sub-

sections of comprehensive WeChat public accounts (16%, n=32), hospital and medical research institutional WeChat public accounts (15.5%, n=31), health care and medicine corporations' WeChat public accounts (13.5%, n=27), individual health WeChat public accounts (12%, n=24) and others (4.5%, n=9), respectively.

There were 200 Chinese elderly WeChat users of the numbers about WeChat public accounts the respondents visited for the last time, the majority of the sample visited four to five WeChat public accounts for the last time they search/browse/use health information (26%, n=52), followed by those who visited two to three (19%, n=38), twenty or more (17%, n=34), one (16%, n=32), six to ten (15.5%, n=31) and cannot remember (6.5%, n=13), respectively.

The descriptive findings found that majority of the respondents had medium level of gratification sought (Mean= 3.587, SD= 0.99462). When examining the level of gratification sought for each dimension, the results found that they had high level of gratification sought for "decision utility" (Mean= 3.707, SD= 1.16556), followed by other statements in the medium levels, including "general information seeking" (Mean= 3.582, SD= 0.95458), "parasocial interaction" (Mean= 3.567, SD= 0.9575), "interpersonal utility" (Mean= 3.553, SD= 1.041) and "entertainment" (Mean= 3.528, SD= 1.12396), respectively.

The descriptive findings found that majority of the respondents had medium level of gratification obtained (Mean= 3.6453, SD= 0.99405). When examining the level of gratification obtained for each dimension, the results found that they had high level of

gratification obtained for “decision utility” (Mean= 3.74, SD= 1.16105) and “general information seeking” (Mean= 3.685, SD= 0.95059), followed by other statements in the medium levels, including “parasocial interaction” (Mean= 3.6367, SD= 0.9715), “interpersonal utility” (Mean= 3.59, SD= 1.03091) and “entertainment” (Mean= 3.575, SD= 1.10627), respectively.

The descriptive findings found that majority of the respondents had high level of small group relational satisfaction (Mean= 3.7021, SD= 0.94). When examining the level of gratification obtained for each dimension, the results found that they had high level of small group relational satisfaction for “We can say anything in this group ‘WeChat health information’ without worrying” (Mean= 3.94, SD= 1.195), “The members in WeChat health information make me feel a part of the group” (Mean= 3.85, SD= 1.008) and “The members in WeChat health information make feel liked” (Mean= 3.80, SD= 0.94), followed by other statements in the medium levels, the lowest mean of them is the statement “I do not feel part of the group in WeChat health information” (Mean= 3.45, SD= 1.092), respectively.

The descriptive findings indicated that majority of the sample were female, majority of the sample were aged 55-59 years old. The results coincided with Susannah (2006), which found that women and middle-aged people would like to use Internet for searching health information.

The study pointed that, Chinese elderly who have different personal data will have significant different gratification sought about health information via WeChat,

especially in “frequency of using WeChat health information” and “educational background”, which means Chinese elderly who have different frequency of using WeChat health information and educational background will have significant different gratification sought about health information via WeChat. Gratifications sought (GS) represent motives for media exposure and are based on expectations about media content. (Palmgreen, Wenner, & Rayburn, 1980). The results coincided with the uses and gratifications theory (UGT), originated by Katz in 1970 (as cited in Katz, Blumler, & Gurevitch, 1974), stated that people seek out the specific content from each media outlet in order to satisfy a particular need. The results also coincided with Maslow (1998), which found that people actively seek to satisfy a hierarchy of needs. Once the goals of one level of hierarchy are achieved, people will progress onto the next level.

The study also pointed that Chinese elderly who have different personal data will have significant different gratification obtained about health information via WeChat, especially in “age” and “frequency of using WeChat health information”, which means Chinese elderly who have different age and frequency of using WeChat health information will have significant different gratification obtained about health information via WeChat. Gratifications obtained (GO), are perceived personal outcomes, they are, therefore, sensitive to media content and feedback to influence content expectations (Palmgreen, Wenner, & Rayburn, 1980). The results coincided with Yang (2004), which found 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.

The result shows that gratification sought and gratification obtained for health information via WeChat among Chinese elderly were not positively correlated, which means Chinese elderly's gratification sought for health information via WeChat didn't have positive correlation with gratification obtained for health information via WeChat. Gratifications sought (GS) represent motives for media exposure and are based on expectations about media content. Gratifications obtained (GO), on the other hand, are perceived personal outcomes, they are, therefore, sensitive to media content and feedback to influence content expectations (Palmgreen, Wenner, & Rayburn, 1980). The results coincided with McQuail, Blumler, and Brown (1972), which found that Media content cannot be used to predict patterns of gratification accurately.

The result shows that gratification sought for WeChat health information are significant predictors of the relational satisfaction of small group communication in WeChat, but gratification obtained for WeChat health information was not significant predictor of Chinese elderly's relational satisfaction of small group communication in WeChat. The results coincided with McQuail, Blumler, and Brown (1972), which found that Media content cannot be used to predict patterns of gratification accurately. The results coincided with Anderson et al. (2001), which found that relational satisfaction was positively correlated with respondents' attitudes about group work, assertiveness, responsiveness, and perceptions of feedback in small groups.

5.2 Summary of Hypothesis Testing and Discussion

The survey instrument tested four major hypotheses:

Hypothesis 1: Chinese elderly who have different personal data (gender, age, personal income per month, educational background, frequency of using WeChat health information, stickiness to WeChat health information) will have significant different gratification sought about health information via WeChat.

Hypothesis 1 was analyzed by One-Way ANOVA revealed that the samples' different personal data had significant influence gratification sought about health information via WeChat. The significance level was set at Alpha (α) 0.05 or 0.1. The results confirmed that Chinese elderly users' frequency of using WeChat health information and educational background had significant different gratification sought about health information via WeChat, but gender, age, personal income per month and stickiness to WeChat health information did not have significant different gratification sought about health information via WeChat.

Analysis of Variance revealed that Chinese elderly who have different educational background had significant gratification sought for interpersonal utility, decision utility and entertainment about health information via WeChat. Analysis of Variance revealed that Chinese elderly who have different frequency of using WeChat health information had significant gratification sought for entertainment, decision utility and interpersonal utility about health information via WeChat.

Hypothesis 1 results coincided with Katz, Gurevitch and Haas (1973, cited in Katz, Blumler, & Gurevitch, 1974), which found that the mass media as a means by

which individuals connect or disconnect themselves with others. They developed 35 needs taken from the largely speculative literature on the social and psychological functions of the mass media and put them into five categories: (1) Cognitive needs—Acquiring information, knowledge and understanding; (2) Affective needs—Emotion, pleasure, feelings; (3) Personal integrative needs—Credibility, stability, status; (4) Social integrative needs—Family and friends; and (5) Tension release needs—Escape and diversion.

The results supported the Uses and Gratifications theory, which posited that members of the audience are not passive but take an active role in interpreting and integrating media into their own lives. This study suggested that people use the media to fulfill specific gratifications. The study found Chinese elderly users were using WeChat health information to sought gratifications about interpersonal utility, decision utility and entertainment.

Hypothesis 1 results underscored the importance of educational background in shaping their expectation for WeChat health toward their decision utility and entertainment. In addition, the result showed that their frequency of using WeChat health information also influenced their expectation on entertainment, decision utility, interpersonal utility, respectively.

Hypothesis 2: Chinese elderly who have different personal data (gender, age, personal income per month, educational background, frequency of using WeChat

health information, stickiness to WeChat health information) will have significant different gratification obtained about health information via WeChat.

Hypothesis 2 was analyzed by One-Way ANOVA revealed that the samples' different personal data had significant influence gratification obtained about health information via WeChat. The significance level was set at Alpha (α) 0.05 or 0.1. The results confirmed that Chinese elderly who have different age and frequency of using WeChat health information will have significant different gratification obtained about health information via WeChat, but who have different gender, personal income per month educational background and stickiness to WeChat health information will not have significant different gratification obtained about health information via WeChat.

Analysis revealed that Chinese elderly who have different age had significant gratification obtained for general information seeking and entertainment about health information via WeChat. Analysis revealed that Chinese elderly who have different frequency of using WeChat health information had significant gratification obtained for general information seeking and decision utility about health information via WeChat.

Hypothesis 2 results coincided with Katz, Blumler and Gurevitch (1974), which found that the social and psychological origins of needs which generate expectations of mass media or other sources, which lead to differential patterns of media exposure (or engagement in other activities), resulting in need gratifications and other consequences, perhaps mostly unintended ones.

The results supported the Uses and Gratifications theory, which posited that the notion of active audience has conflated an extraordinary range of meanings, including utility, intentionality, selectivity and imperviousness to influence. This study suggested that audiences holds responsible for choosing media to meet their needs. The study found Chinese elderly users were using WeChat health information to obtained gratifications about general information seeking, entertainment and decision utility.

Hypothesis 2 results underscored the age influenced their gratification obtained for general information seeking and entertainment but no significant effect on their gratification obtained for parasocial interaction, decision utility, and interpersonal utility.

Hypothesis 3: Gratification sought and gratification obtained for health information via WeChat among Chinese elderly were positively correlated.

The analysis of Spearman's Rank Correlation showed that gratification sought and gratification obtained for health information via WeChat among Chinese elderly were not positively correlated. Hypothesis 3 was not supported.

Hypothesis 3 results coincided with Littlejohn (1978), which found that people will become more dependent on media that meet a number of their needs than on media that touch only a few ones. The results supported the Uses and Gratifications theory, which posited that dependency on a certain medium is influenced by the number sources open to an individual. Individuals are usually more dependent on available media if their access to media alternatives is limited. The more alternatives there are for an individual, the lesser is the dependency on and influence of a specific medium. This study suggested

that WeChat health information should try to meet the needs and gratifications of the Chinese elderly WeChat users and improve the importance of WeChat health information to them. Despite of the previous literatures, this study found that there is none significantly between the gratification sought and gratification obtained for health information via WeChat among Chinese elderly.

Hypothesis 4: Gratification sought about health information via WeChat and gratification obtained about health information via WeChat among Chinese elderly are significant predictors of their relational satisfaction toward the small group communication in WeChat health communication.

Multiple Regression model indicated that gratification sought for WeChat health information are significant predictors of the relational satisfaction of small group communication in WeChat; however, gratification obtained for WeChat health information was not significant predictor of Chinese elderly's relational satisfaction of small group communication in WeChat. When examining the key constructs of gratification sought, Multiple Regression analysis found that Chinese elderly's gratification sought for decision utility and entertainment about health information via WeChat among Chinese elderly are significant predictors of their relational satisfaction toward the small group communication in WeChat health communication.

Hypothesis 4 results coincided with Anderson et al. (2001), which found that relational satisfaction was positively correlated with respondents' attitudes about group work, assertiveness, responsiveness, and perceptions of feedback in small groups. The

results supported the Relational Satisfaction in Small Group Communication theory, which posited that Relational satisfaction in small groups was characterized by feelings of affection, inclusion, liking, trust, friendship, freedom to communicate, involvement, and getting to know each other, among others (Anderson, Martin & Riddle, 2001). This study suggested that researchers interested in the relational side of groups, not simply group performance processes and outcomes, may find the small group RSS useful. The RSS has not yet been used widely, perhaps owing to its recent publication. However, it has been shown to be reliable when utilized (Anderson, Martin & Riddle, 2001). The study found that Chinese elderly's gratification sought for decision utility and entertainment about health information via WeChat among Chinese elderly are significant predictors of their relational satisfaction toward the small group communication in WeChat health communication. Despite of the previous literatures, this study found that there is none significantly between the sample's gratification obtained for WeChat health information and Chinese elderly's relational satisfaction of small group communication in WeChat.

5.3 Conclusion of the Research

Through the findings and discussion parts of this study, it showed that there was a relationship between the samples' personal data and gratification sought or gratification obtained about health information via WeChat. It also showed that there was a relationship between the samples' gratification sought for WeChat health information and

relational satisfaction of small group communication in WeChat. This study sought to contribute to the current body of knowledge about the influence of social media impact toward WeChat health information as well as further current theory-driven strategic communication research by using an experimental design to test gratification sought about health information via WeChat, gratification obtained about health information via WeChat and relational satisfaction of small group communication in WeChat. These findings contributed to the WeChat health information literature and support views of researchers, such as uses and gratifications (U&G) is an audience-centered approach to mass communication, which holds that understanding why people use media helps explain media choices and consequences. According to this approach, gratifications sought (GS) represent motives for media exposure and are based on expectations about media content. Gratifications obtained (GO), on the other hand, are perceived personal outcomes, they are, therefore, sensitive to media content and feedback to influence content expectations (Palmgreen, Wenner, & Rayburn, 1980). Palmgreen et al. (1980) developed two 15-item scales to measure the GS and GO. The items measured five GS and GO dimensions: General Information Seeking, Decisional Utility, Entertainment, Interpersonal Utility, and Parasocial Interaction. Relational satisfaction in small groups was characterized by feelings of affection, inclusion, liking, trust, friendship, freedom to communicate, involvement, and getting to know each other, among others. Researchers interested in the relational side of groups, not simply group performance processes and outcomes, may find the small group RSS useful. The RSS has not yet been used widely, perhaps owing to its recent publication. However, it has been shown to be reliable when

utilized (Anderson, Martin & Riddle, 2001). The findings of this study are relevant to both gratification sought, gratification obtained and relational satisfaction of small group communication in WeChat. The result confirmed the relationship between personal data, gratification sought about health information via WeChat, gratification obtained about health information via WeChat and relational satisfaction of small group communication in WeChat. This model provides a roadmap for study in which personal data had significant different gratification sought and gratification obtained about health information via WeChat.

Results from Hypothesis 1 to Hypothesis 3 supported the Uses and Gratifications theory, which suggested that people use the media to fulfill specific gratifications and audiences holds responsible for choosing media to meet their needs. Other theory that it supported was Relational Satisfaction in Small Group Communication theory, which posited relational satisfaction in small groups was characterized by feelings of affection, inclusion, liking, trust, friendship, freedom to communicate, involvement, and getting to know each other, among others (Anderson, Martin & Riddle, 2001). The findings suggested that 1) Chinese elderly users were using WeChat health information to sought gratifications about interpersonal utility, decision utility and entertainment; 2) Chinese elderly users were using WeChat health information to obtained gratifications about general information seeking, entertainment and decision utility; 3) Chinese elderly's gratification sought for decision utility and entertainment about health information via WeChat among Chinese elderly are significant predictors of their relational satisfaction toward the small group communication in WeChat health communication. WeChat health

information should try to meet the needs and gratifications of the Chinese elderly WeChat users and improve the importance of WeChat health information to them.

5.4 Recommendations for Future Application

1. WeChat health information should provide health-related to increase their decision utility and entertainment and try to reach Chinese elderly who have higher education extensively in the bachelor or higher level—not target only high school or vocational level--because health-related contents are very issue for all. Sixty-five percents of the sample in this survey completed only high school (44%) and vocational level (21.5%). Health information provided in WeChat should give more academic advices to enable to make their personal decision about health issues and also provide more entertaining contents to persuade them read the health contents with more enthusiasm and giving a joyful experience rather than a boring moment while reading the WeChat health information.

2. Majority of Chinese elderly age 55-64 years (42.5%, n = 85) were exposed to the Wechat health information but those who were 70-79 and higher were exposed at the low rate. These age groups really need health information to take care of their own health, because they in the late aging period. Health information will be risk factor if they did not have sufficient information available for them. Hence, WeChat should plan a communication program to reach these age groups to meet their immediate needs.

5.5 Recommendations for Future Research

1. A similar study can be conducted in other places rather than Shanghai that there has a number of viewers in that provincial areas. There are other cultural values that might have relationship with gratification sought and gratification obtained about health information via WeChat. Therefore, the result may be different when studying in other areas.
2. This kind of study, moreover, can be conducted in both qualitative and quantitative methodology in order to get more details in the needs and perceptions of WeChat users because interview in qualitative methodology can help this research to get deeper in their gratification sought and gratification obtained about health information via WeChat. Thus, the study can help predict the WeChat users' gratification obtained about health information via WeChat.
3. The researchers who want to conduct this topic of research have to extend this research by examining in other areas of WeChat users' gratifications and gain a deeper understanding of the impact of WeChat health information on WeChat users.

5.6 Limitations of the Study

1. The limitation in sampling procedure – researcher examined only the Chinese residents who live in Shanghai Metropolitan area. Thus, the findings may not

represent the Chinese residents in other province since the background and lifestyle factors might be different.

2. Limitation in getting the information of samples through using different languages in the research instruments, which is developed in English and later on, was translated into Chinese language. Therefore, there might be discrepancy between English and Chinese, which can affect the accuracy of the results. However, researcher has reduced this translation discrepancy by conducting back translation to verify the face validity of the research.
3. The limitation of instrument because the questionnaire consists 4 parts, which may be too lengthy for the samples to answer. Moreover, some parts of the questions are about the gratification sought and gratification obtained about WeChat health information that might be too confusing and difficult of understanding for respondents. As a result, they might not pay full attention to this questionnaire. This may affect and distort the result of the study.

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APPENDIX 1

Questionnaire in English

This questionnaire is a partial fulfillment for the course ICA 701 Independent Study in the Master's Degree Program in Global Communication, Bangkok University. This survey aims to examine the relationship among the demographic characteristic and health condition of WeChat users, their gratification sought and gratification obtained, and degree of relational satisfaction toward the small group in WeChat. Please choose the answer that best represents your opinion. Your responses will remain anonymous. Thank you in advance for your time and effort. Your answers will be treated confidentially, for the researcher will be using the results of the surveys for educational purpose only.

Section A: Personal Data and health condition

Please choose the only one answer that best represents you.

1. Gender of respondent:

1. Male 2. Female

2. Age of respondents:

1. 55-59 years old 2. 60-64 years old 3. 65-69 years old
 4. 70-74 years old 5. 75-79 years old 6. More than 79 years old

3. Monthly Income per month:

- 1. Less than 4,000 yuan
- 2. 4,001 - 10,000 yuan
- 3. 10,001- 16,000 yuan
- 4. 16,001 - 22,000 yuan
- 5. 22,001- 26,000 yuan
- 6. Higher than 26,000 yuan

4. Educational background

- 1. High School
- 2. Vocational School
- 3. Bachelor degree
- 4. Master degree
- 5. Doctoral degree
- 6. Others (please specify):.....

5. Health Condition:

5.1 How do you feel about your health condition now?

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

5.2 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

6. How often do you use WeChat for health information in a daily life?

- 1. Never (None per day)
- 2. Seldom (1-2 times per day)
- 3. Sometimes (3-4 times per day)
- 4. Often (5-6 times per day)
- 5. Always (More than 6 per day)

7. How long do you spend time on searching and browsing health information through WeChat each time?

- 1. Less than 30 minutes for each searching and browsing (Very low stickiness)
- 2. More than 30 minutes to 1 hour for each searching and browsing (Low stickiness)
- 3. More than 1 hour to 2 hours for each searching and browsing (Medium stickiness)
- 4. More than 3 hours for each searching and browsing (Stickiness)
- 5. More than 4 hours or more for each searching and browsing (Very high stickiness)

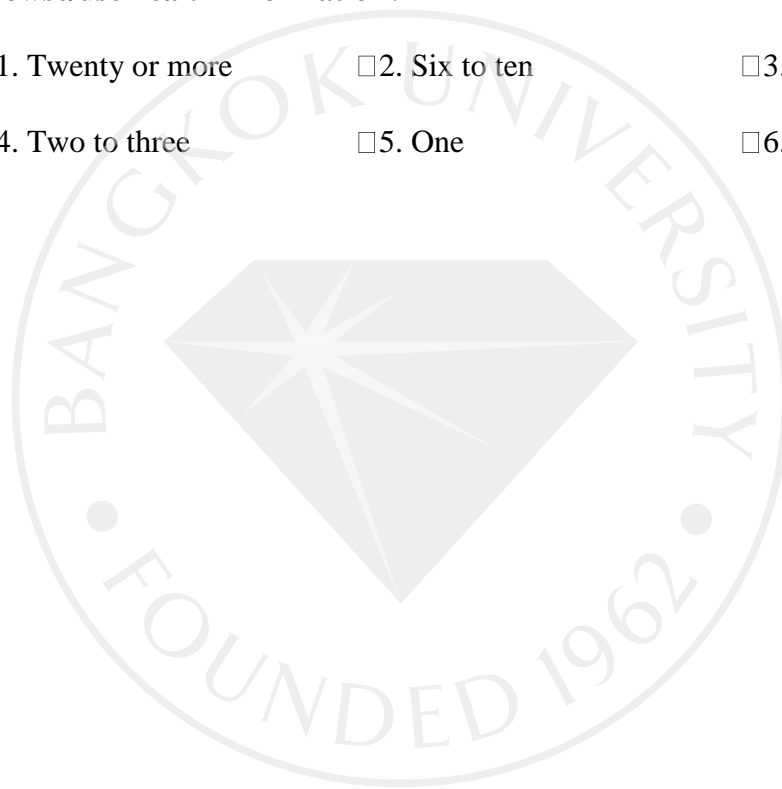
8. What kinds of health-related WeChat public accounts you often join in the past one year period?

- 1. Government owned health WeChat public accounts
- 2. Hospital and medical research institutional WeChat public accounts
- 3. Health care and medicine corporations' WeChat public accounts
- 4. Health-related sub-sections of comprehensive WeChat public accounts

- 5. Medical associations and health-related social organization WeChat public accounts
- 6. Individual health WeChat public accounts
- 7. Others (please specify_____)

9. How many WeChat public accounts 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



Section B: Gratification Sought about health information via WeChat (GS)

According to yourself, do you agree or disagree of the following statements about your gratifications sought about the health-related information provided in WeChat social networking? Use the following scale to describe your opinion on the statements:

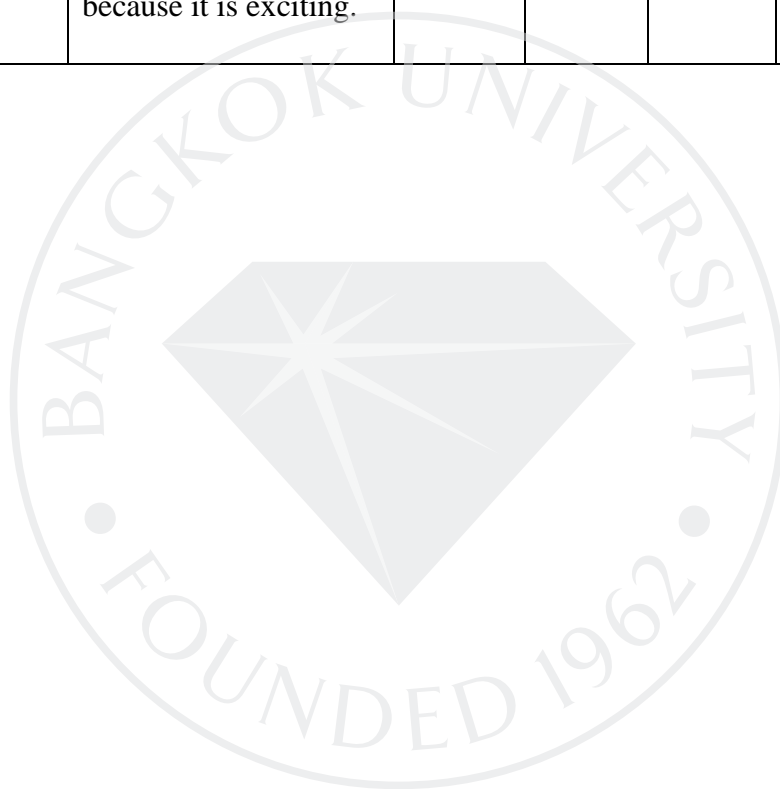
1. Strongly disagree with the statement
2. Disagree with the statement
3. Neither agree nor disagree with the statement
4. Agree with the statement
5. Strongly agree with the statement

	Gratifications sought about health information via WeChat	5	4	3	2	1
General information seeking	1. I use WeChat health information to access current issues in health information and events.					
	2. I use WeChat health information so that I will not be surprised by unexpected health diseases that might happen in my life.					

	3. I use WeChat health information, because I trust the information they give me.					
Parasocial interaction	4. I use WeChat health information, because doctors and health experts gave me a human-like quality service about the health information.					
	5. I use WeChat health information to compare my own ideas to what doctors and health experts said.					
	6. I use WeChat health information, because doctors and health expert are like people I knew.					
Decision utility	7. I used WeChat to find out what kind of health information are important nowadays.					

	8. I use WeChat health information to help me make up my mind about the important issues of the day.					
	9. I use WeChat health information to find out about health issues affecting people like myself.					
Interpersonal utility	10. I use WeChat health information to support my viewpoints to other people.					
	11. I use WeChat health information so I can pass the information on to other people.					
	12. I use WeChat health to give me interesting things to talk about.					
Entertainment	13. I use WeChat health information, because it is often entertaining.					

	14. I use WeChat health information, because it is stimulating.					
	15. I use WeChat health information, because it is exciting.					



Section C: Gratification Obtained about health information via WeChat (GO)

Do you agree or disagree with following statements about your gratifications obtained about health-related information provided in WeChat? Use the following scale to describe your opinion on the statements:

1. Strongly disagree with the statement
2. Disagree with the statement
3. Neither agree nor disagree with the statement
4. Agree with the statement
5. Strongly agree with the statement

	Gratifications obtained about health information via WeChat	5	4	3	2	1
General information seeking	1. I got accurate information about current issues in health information and events in WeChat health subscription.					
	2. I were not surprised by unexpected health disease that might happen in my life.					
	3. I believe that the health information in					

	WeChat are trustworthy and reliable.					
Parasocial interaction	4. I perceived that health information provided by doctors and health experts in WeChat health information are real and human-like.					
	5. I compared my own ideas to what doctors and health experts say.					
	6. I perceived that doctors and health experts in WeChat are like people I knew.					
Decision utility	7. I learnt about what kind of health information is important to me nowadays from WeChat health information.					
	8. WeChat health information help me make up my mind about the important					

	issues of the day.					
	9. I found out about health issues affecting my life.					
Interpersonal utility	10. WeChat health information supports my viewpoints to other people.					
	11. I can pass the health information on to other people.					
	12. WeChat health provides me interesting things to talk about with other people.					
Entertainment	13. WeChat health information entertain me.					
	14. WeChat health information stimulate my interest in health issue.					
	15. WeChat health information provide exciting information that I don't know					

	before.					
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Section D: Small group relational satisfaction

Instructions: This part aims to measure your perception of satisfaction while engaging in WeChat health information network. Please use the following scale:

1. Strongly disagree with the statement
2. Disagree with the statement
3. Neither agree nor disagree with the statement
4. Agree with the statement
5. Strongly agree with the statement

	5	4	3	2	1
1. The doctors and health experts in WeChat spend time getting to know me.					
2. The members in WeChat health information make me feel a part of the group.					
3. I look forward to joining the group meeting every day.					
4. I do not feel part of the group in WeChat health information.					
5. The members in WeChat health information make feel liked.					
6. My absence would not matter to the group in WeChat health information.					

7. I can trust doctors and health experts in WeChat health information.					
8. We can say anything in this group “WeChat health information” without worrying.					
9. I prefer not to spend time with members of the group “WeChat health information”					
10. The members in this group “WeChat health information” made me feel involved in the group.					
11. Some of the group members could become my friends.					
12. The group atmosphere in WeChat health information is comfortable.					

Thank you for **your genuine cooperation in answering this survey.**

附录 1

本问卷是为满足曼谷大学全球传播硕士学位课程 ICA 701 独立研究课程部分而实施。本研究旨在调查微信使用者的人口特征与健康状况之间的关系、寻求和获得的满足感、以及对 WeChat 小团体的关系满意度。请选择最能代表您的意见的答案。您的回复将是匿名的。提前感谢您的时间和精力。您的答案将被保密处理，研究者只将调查结果用作教育目的。

第一部分：人口特征与健康状况

请选择一个最能代表您意见的答案。

1. 被调查者性别：

1. 男性 2. 女性

2. 被调查者年龄：

1. 55-59 周岁 2. 60-64 周岁 3. 65-69 周岁
 4. 70-74 周岁 5. 75-79 周岁 6. 大于 74 周岁

3. 月收入：

1. 低于 4,000 元
 2. 4,001 - 10,000 元

3. 10,001- 16,000 元

4. 16,001 - 22,000 元

5. 22,001- 26,000 元

6. 高于 26,000 元

4. 教育背景

1. 高中

2. 职业学校

3. 大学

4. 硕士

5. 博士

6. 其他 (请详细说明):.....

5. 健康状况:

5.1 您认为自己现在的健康状况如何?

1. 非常糟糕

2. 糟糕

3. 不好不坏

4. 良好

5. 非常好

5.2 在日常生活中您是否认真通过每日工作，饮食，运动锻炼来维持健康状态？

1. 完全不 2. 不是很认真
3. 一般 4. 认真
5. 非常认真

6. 在日常生活中，您多久使用微信获取一次健康信息？

1. 从来没有 (一天都没有)
2. 很少 (1-2 次每天)
3. 有时(3-4 次每天)
4. 经常 (4-5 次每天)
5. 总是 (超过 5 次每天)

7. 您每次花多长时间通过微信搜索和浏览健康信息??

1. 每次搜索和浏览少于 30 分钟 (非常低吸引力)
2. 每次搜索和浏览超过 30 分钟至 1 小时 (低吸引力)
3. 每次搜索和浏览超过 1 小时至 2 小时 (中等吸引力)
4. 每次搜索和浏览超过 3 小时 (具有吸引力)

5. 每次搜索和浏览超过 4 小时（非常高的吸引度）

8. 过去一年中您经常关注哪些与健康相关的微信公众账号？

1. 官方卫生保健公众账号

2. 医院与医疗科研机构微信公众账号

3. 医药卫生企业微信公众账号

4. 综合类微信公众账号的健康相关子栏目

5. 医疗协会和与健康相关的社会组织微信公众账号

6. 个人健康微信公众账号

7. 其他（请注明）：.....

9. 您在上一次搜索/浏览/使用健康信息时访问过多少个微信公众帐户？

1. 二十个或更多

2. 六至十个

3. 四至五个

4. 两到三个

5. 一个

6. 不记得了

第二部分: 通过微信寻找健康信息的满意度

根据您自己, 您是否同意或不同意下列说法关于微信社交网络中为您提供的与健康相关的信息是否满足了您的需求? 用下面的程度选项来描述您对这些陈述的看法:

1. 强烈反对该说法
2. 不同意这种说法
3. 不同意也不反对这一说法
4. 同意说法
5. 强烈同意这种说法

	通过微信寻找健康信息的满意度	5	4	3	2	1
一般信息征 求	1. 我使用微信来访问健康信息和事件中的当前问题。					
	2. 我使用微信健康信息, 这样我就不					

	会对生命中可能发生的意外健康疾病感到惊讶。					
	3. 我使用微信健康信息，因为我相信他们提供给我的信息。					
准社会互动	4. 我使用微信健康信息，因为医生和健康专家给了我关于健康信息的人性化的优质服务。					
	5. 我使用微信健康信息中医生和健康专家的说法来和我自己的想法进行比较。					
	6. 我使用微信健康信息，是因为医生					

	和健康专家就像现实生活中我认识的人一样。					
决策效用	7. 我用微信来了解现在什么样的健康信息是很重要的。					
	8. 我用微信的健康信息来帮助我决定当天的重要问题。					
	9. 我使用微信健康信息来了解影响像我这类的人的健康问题。					
人际效用	10. 在与他人交流时，我用微信健康信息来支持我的观点。					
	11. 我使用微信健康信息，所以我可以					

	把信息传递给其他人。					
	12. 我用微信健康给我自己提供一些有趣的话题来与他人谈论。					
娱乐消遣	13. 我使用微信健康信息，因为它经常是有趣的。					
	14. 我使用微信健康信息，因为它是激励性的。					
	15. 我使用微信健康信息，因为它是令人兴奋的。					

第三部分：通过微信获得健康信息的满意度

您是否同意或不同意下列说法关于您从微信社交网络中获得的与健康相关的信息是否满足了您的需求？用下面的程度选项来描述您对这些陈述的看法：

1. 强烈反对该说法
2. 不同意这种说法
3. 不同意也不反对这一说法
4. 同意说法
5. 强烈同意这种说法

	通过微信获得健康信息的满意度	5	4	3	2	1
一般信息征 求	1. 我在微信健康订阅中获得了关于当前健康信息和事件的准确信息。					
	2. 我对我生命中可能发生的意外疾病并不感到惊讶。					

	3. 我相信微信中的健康信息是值得信赖和可靠的。					
准社会互动	4. 我知道医生和健康专家在微信健康信息中提供的健康信息是真实的。					
	5. 我把我自己的想法和医生和健康专家说的意见进行对比。					
	6. 我感觉到微信的医生和健康专家就像我认识的真人一样。					
决策效用	7. 我从微信健康信息中学到了什么样的健康信息对我现在来说很重要。					

	8. 微信健康信息帮助 我决定当天的重要问 题。					
	9. 我发现了影响我生 活的健康问题。					
人际效用	10. 在与他人交流 时，我用微信健康信 息来支持我的观点。					
	11. 我可以把微信健康 信息传递给其他人。					
	12. 我用微信健康给 我自己提供一些有趣 的事情来与他人谈 论。					
娱乐消遣	13. 微信健康信息使 我产生兴趣。					
	14. 微信健康信息激 发了我对健康问题的 兴趣。					

	15. 微信健康信息提 供给我了一些之前不 知道的兴奋的信息。					
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第四部分： 微信小团体的关系满意度

说明：本部分旨在测量微信健康信息网络的满意度。请选择以下的程度选项：

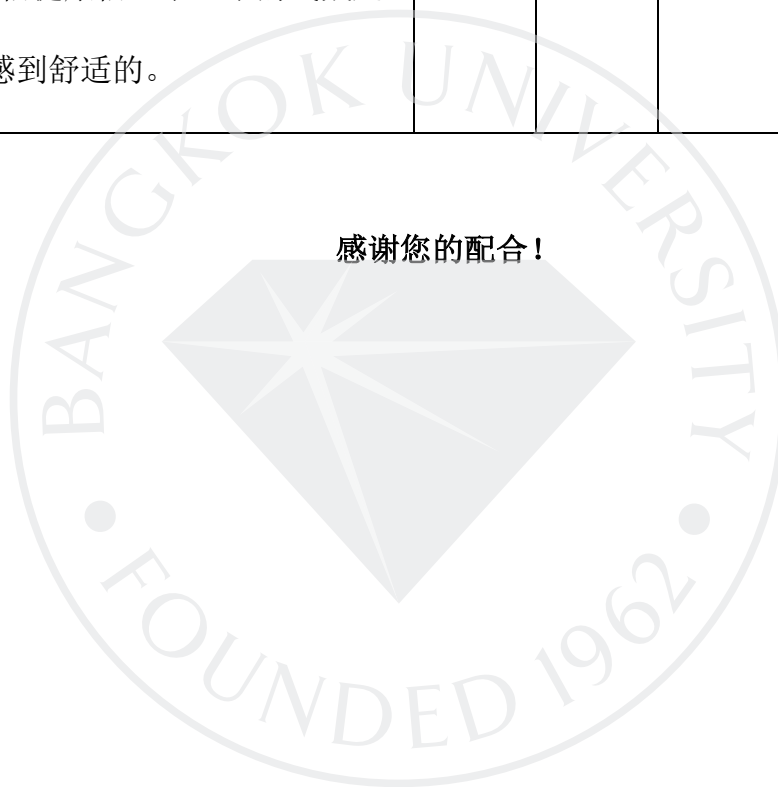
1. 强烈反对该说法
2. 不同意这种说法
3. 不同意也不反对这一说法
4. 同意说法
5. 强烈同意这种说法

	5	4	3	2	1
1. 微信中的医生和健康专家花费 了时间来了解我。					

2. 微信健康信息的成员让我感觉到了自己像是这个群体中的一部分。					
3. 我期待着每天参加小组的讨论。					
4. 我没有感觉到自己是小组中的一部分。					
5. 微信健康中的成员让人感觉喜欢。					
6. 我的缺席对微信健康信息中的小组不会有影响。					
7. 我可以相信微信健康信息中的医生与专家。					
8. 我们可以不用担心的在“微信健康信息小组”中发表任何意见。					
9. 我倾向于不花费时间去和“微信健康信息小组”中的成员去相处。					

10. “微信健康信息小组”中的成员使我感受到了参与感。					
11. 一些小组中的成员可以成为我的朋友。					
12. 微信健康信息小组中的气氛是令人感到舒适的。					

感谢您的配合！



BIODATA

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