

REPRODUCTIVE HEALTH INFORMATION SEEKING MATTERS: PREDICTORS
AND PERCEIVED BARRIERS AMONG YOUNG PERUVIAN WOMEN

by

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Director: Gary L. Kreps, Professor
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DEDICATION

This dissertation is dedicated to my family for their support during the last three years.

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LIST OF ABBREVIATIONS

Centers for Disease Control and Prevention.....	CDC
Comprehensive Model of Information Seeking.....	CMIS
Health information seeking behavior.....	HISB
Health Information National Trends Survey.....	HINTS
Information and Communication Technologies.....	ICT
Instituto Nacional de Estadística e Informática.....	INEI
International Studies to Investigate Global Health Information Trends.....	INSIGHTS
Pan American Health Organization	PAHO
Reproductive Health Information.....	RHI
Reproductive Health Services.....	RHS
Sexually Transmitted Diseases	STD
Socioeconomic status.....	SES
United Nations Population Fund.....	UNFPA
World Health Organization.....	WHO

ABSTRACT

REPRODUCTIVE HEALTH INFORMATION SEEKING MATTERS: PREDICTORS AND PERCEIVED BARRIERS AMONG YOUNG PERUVIAN WOMEN

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George Mason University, 2020

Dissertation Director: Dr. Gary L. Kreps

This cross-sectional study aimed to determine the main predictors and perceived barriers of reproductive (modern contraception) health information seeking behavior of young Peruvian women. Through the use of an online survey, young Peruvian women aged 18-26 years old were invited to participate voluntarily in this research. Participants came from three colleges in Peru. The Comprehensive Model of Information seeking (CMIS) from Johnson and Meischke (1993) was tested. This model indicates that demographics, direct experience, salience and beliefs predict utility of information sources. The model also suggests that information-carrier characteristics (perceived trust and perceived utility) could influence health information seeking actions. Hypotheses related to these variables were tested. An important addition to the model was perceived barriers as beliefs. These are considered critical factors in the reproductive health information access in the Peruvian context. Path analysis with manifest variables was used to test the best fit between the data and the hypothesized model. Data analysis

showed mixed results. Through a path analysis with manifest variables, the study drew attention to the direct effects of personal factors on health information seeking among young women and the role perceived barriers in perceived utility of different information sources. Results could inform future health communication and public health campaigns in Peru.

CHAPTER ONE: INTRODUCTION

This research identifies and examines the major predictors and perceived barriers to health information seeking behaviors (HISB) concerning the reproductive health of young Peruvian women. Evidence shows that access to relevant, timely, and accurate information through educational programs about sexual and reproductive health can improve sexual health outcomes including use of condoms during sexual intercourse (Oringanje, et al., 2009) or contraceptive use (Kirby, Laris, Lori & Roller, 2007) among young people.

Moreover, when health information and educational programs are well designed and implemented, these programs can help improve young women's knowledge, attitudes and skills concerning sexual and reproductive health (Cottingham, 2015).

Young people are usually active seekers of sexual and reproductive health information (Chang, 2014, Basch, MacLean, Romero & Ethan, 2018). Different studies have shown that this population is very interested in learning more about sexual and reproductive health from different sources (Chang, 2014; Willoughby & Jackson, 2013; Borzekowski, Rickert & Vaughn, 2001; Fogel, Fajiram & Morgan, 2010) especially young females are interested in health topics such as birth control, STDs, and pregnancy (Boyar, Levine & Zensius, 2011). Learning how young women seek health information and identifying the predictors and barriers to their health information seeking can provide

insights into building theoretical frameworks that identify the main variables in the health information seeking process. Moreover, increasing knowledge about this essential topic can also guide strategies and campaigns for improving public health initiatives in Peru that are targeted at young women.

There have been important efforts to determine how people seek and use health information on different health topics. For instance, in the U.S., the Health Information National Trends Survey (HINTS) conducted by the National Cancer Institute is a major source of data about the health information sources used by American adults (Rutten, Squiers & Hesse, 2006). Currently, the HINTS research program has been expanded to other contexts such as China, Germany and Israel as part of the International Studies to Investigate Global Health Information Trends (INSIGHTS) research program (Kreps, Yu, Zhao, Chou & Hesse, 2017). The HINTS survey instrument gathers important data about health information sources concerning cancer, provides insights into how health information seeking processes are conducted, and expand understanding about other key components of HISB.

There is a large body of research on health information seeking behavior, focused on determinants of health information seeking and outcomes which are measured in terms of knowledge (Rimal, Flora & Schooler, 1999, Andreassen, et al., 2005; Muha, et al., 1998), behavior and health status (Gray et al, 2005; Szwajcer, et al, 2005; Shi, Nakamura & Takano, 2004), among other things. This study will build on this prior research by examining how young Peruvian women gather reproductive health information at a critical stage of their lives when they form important health habits. Peru has one of the

highest rates of unplanned pregnancy among teenagers in the American Region (National Institute of Statistics and Informatics, 2018). Currently the national rate of unplanned teen pregnancy is 12.6%, however, some Peruvian regions have high rates of unplanned pregnancy. For example, the Amazonian region has an unplanned teen pregnancy rate of 23.5%, with rural areas having an unplanned teen pregnancy rate of 22.7% (National Institute of Statistics and Informatics, 2018). These unplanned teen pregnancy rates have remained constant over the last two decades. Besides these statistics, access to family planning messages in Peru remains low (National Institute of Statistics and Informatics, 2018). Currently, 61.1% of women aged 20-24 in Peru has not received any family planning messages from mass media (National Institute of Statistics and Informatics, 2018). Moreover, sexual education in Peru is low as noted by Motta et al (2017) who affirmed in their report that only 9% of Peruvian high school students receive comprehensive sexual education.

The key research questions that will be addressed in this study include:

RQ1) What is the association between antecedent factors (experience, salience and beliefs) and perceived utility of the information source?

RQ2) What is the association between information-carrier characteristics (perceived trust) and perceived utility, the association between perceived trust and health information seeking and the association between perceived utility on health information seeking actions?

Background and statement of the problem

Women in Peru

Peru is located in Western South America, bordering the Pacific Ocean. The size of the country is 1,285,215 km², and it is the third biggest country in South America after Brazil and Argentina. Peru is divided into 24 regions, and the Constitutional Province of Callao. These 24 regions are also divided into three main macro regions called the Coastal Region, Andean Region and Amazon Region. The capital of the country is Lima, which is located in the coastal region of the country. Lima is by far the biggest city in the country, and the most populated city in Peru. Beginning in the mid-1960s, the population in Peru started to shift from rural areas to urban areas. The urban population now represents 72.3% of the total population (National Institute of Statistics and Informatics, 2018). This shows that Peru is a mostly urban country. Ethnically, socially and culturally, Peru's population of nearly 32 million is one of the most heterogeneous populations in Latin America (National Institute of Statistics and Informatics, 2018). The official languages are Spanish and Quechua. However, Peru has cultural diversity where other native languages such as Aymara are spoken. Spanish is the common language in most of the country, and it is spoken widely. Nevertheless, Quechua represents an important heritage from the Incas, and in many regions of the country it is still spoken with some variations.

According to the National Institute of Statistics and Informatics (2007) more than six million people use Quechua as their native language in Peru. As any developing country, Peru faces several challenges in relation to health indicators. Peru is a country of contrasts and disparities. One third of the population lives in poverty, especially women and children from the Amazon and Andean regions within Peru.

Health, education and economic disparities remain in Peru. For example, there are clear differences on child malnutrition rates comparing Lima and the Amazon and Andean region. Lima decreased its malnutrition rates from 11.2% in 1991 to 4.1% in 2011. On the other hand, slower decreases were seen in the Amazon and Andean regions: 41.4% to 21.2% and from 51.6% to 25.1% respectively (Shin, Aliaga-Linares & Britton, 2017). These health disparities are critical when comparing malnutrition rates among the different regions in Peru. For instance, Huancavelica, which is an Andean region, has a malnutrition rate of 32% in 2018 while Lima the city capital reported a 4.5% malnutrition rate (National Institute of Statistics and Informatics, 2018b).

In terms of education, there are disparities if we compare the illiteracy rates between the three main regions in Peru. According to the National Institute of Statistics and Informatics (2018b) the illiteracy rate in the Coastal region is 3% while in the Andean Region and Amazon Region are 10% and 7.3% respectively. This shows the inequalities within the same country. In terms of economic hardships, there are also differences in the Amazon and Andean Region where 41% and 21% respectively affirmed they have an unmet basic need for food during 2017. In the Coastal region the unmet basic need for food is 11% (National Institute of Statistics and Informatics, 2018b).

In terms of the role of women in society, Peru can be considered to be a patriarchal society because traditional gender roles are still very strong in the country. According to the 2015 National Survey on Social Relationships, 30.1% of respondents affirmed that women are responsible to fulfill all household chores and 55.7% affirmed

that women should satisfy their roles as mothers and housewives before achieving their own personal dreams. Moreover, 45.5% of respondents affirmed that if a woman doesn't look after her husband, it is fine that her husband reprimands her (National Institute of Statistics and Informatics, 2015). Thus, it is not uncommon for women to hold traditional roles at home instead of holding professional roles outside their households.

Illiteracy is higher among Peruvian women when compared to their male counterparts, and health statistics such as the high prevalence of unplanned teenage pregnancy (described previously) and the high prevalence of gender-based violence against women in Peru showed disparities as well. The illiteracy rate is higher among Peruvian women, 8.3%, while it 2.9% among men at the national level. However, there are important differences when comparing these illiteracy rates across regions. For example, women in rural Peru have higher illiteracy rates (22.6%) when compared with their male counterparts (7.5%) (National Institute of Statistics and Informatics, 2018d). In terms of gender-based violence, 30% of Peruvian women affirmed that they have been victims of violence from their partners in 2018 (National Institute of Informatics and Statistics, 2018d) The Multi-country Study on Women's Health and Domestic Violence against Women, sponsored by the World Health Organization (2005), conducted between 2000 and 2003, found that the prevalence of gender based violence was very high in Peru. For example, 49% of ever-partnered women in Lima and 61% in Cusco, another city in Peru, reported physical violence by a partner at some time in their life. 23% of women in Lima reported experiencing sexual violence from a partner, and 47% of women in Cusco reported sexual violence from a partner. Mujica (2011) also found that

Peru holds the highest rate of sexual rape reports (22.40% per 100,000) in South America!

Considering these statistics, it is important to provide relevant reproductive health information and education for young Peruvian women. Many times, gender roles that are disadvantageous to women's health and wellbeing are reinforced because of lack of information or lack of education. Educating and informing women about their reproductive health can be very beneficial for them. Acquiring knowledge about how women are seeking reproductive health information, what the predictors and the perceived barriers are to accessing relevant health information is relevant for enhancing the health communication research literature. Understanding how young Peruvian women seek reproductive health information can shed light about the information they use and which information sources they trust the most and which sources they find to be more useful. Having this knowledge is relevant for planning future health communication campaigns and public health initiatives.

Access to contraception and reproductive health information

According to the United Nations Population Fund, 232 million women in developing countries who want to avoid pregnancy are not accessing safe and effective modern contraception which can lead to death and disability related to complications of pregnancy and childbirth (UNFPA, 2019). Moreover, Darroch (2018) from the Guttmacher Institute, found that there were 89 million unintended pregnancies in 2017 worldwide; additionally 24% of women at reproductive age (15-49 years old) who want to avoid pregnancy do not use modern contraception.

Additionally, according to the Pan-American Health Organization, there is still an unmet need for contraception among Peruvian women (PAHO, 2013), 76% of reproductive age women access some form of contraception, modern or traditional and the current use of modern contraceptive methods by women aged 20-24 years old is 37.9% and women aged 25-29 years old is 49.8% (National Institute of Statistics and Informatics, 2018).

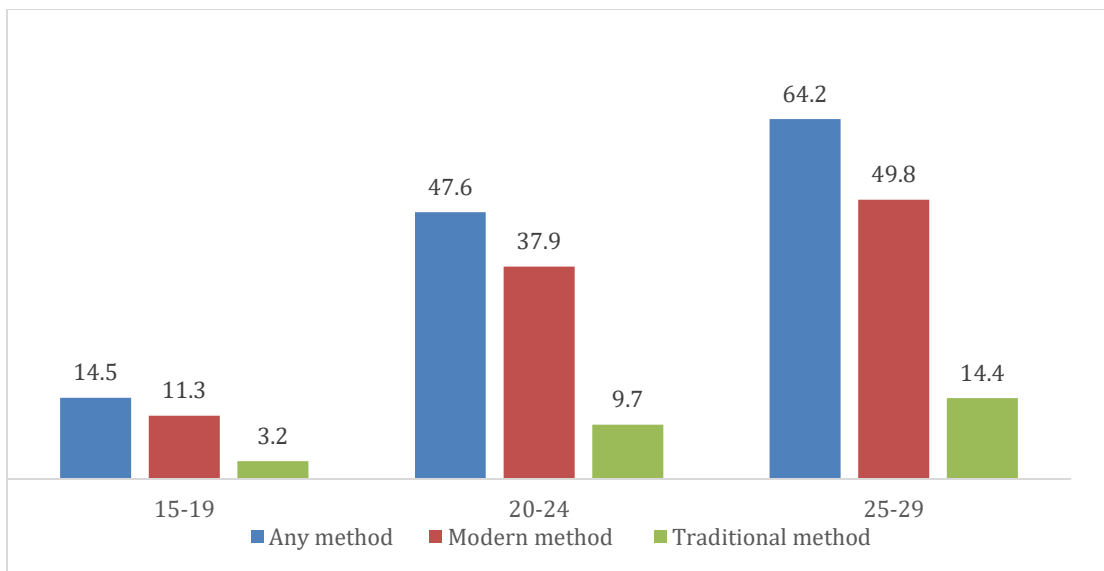


Figure 1 Current use of contraception by Peruvian women in 2018

There is still a lot of work to do concerning dissemination of relevant health information about contraception since 61% of women aged 20-24 years old have not heard family planning messages through traditional media in 2018 (National Institute of Informatics and Statistics, 2018). Moreover, the National Institute of Informatics and

Statistics of Peru (2014) found that health messages about family planning are not reaching women who most need this information, such as women who have not finished their formal education (66.8%) and women who live in poverty (62.8%). In the same study, the National Institute of Informatics and Statistics (2014) found that the main suppliers of contraception information for Peruvian women were the public hospitals (6.6%), private clinics (38.4%) and family and friends (0.6%). Moreover, the Demographic and Family Survey of 2018, the National Institute of Statistics and Informatics (2018) found that 61.1% of women aged 20-24 years old have never heard any family planning message.

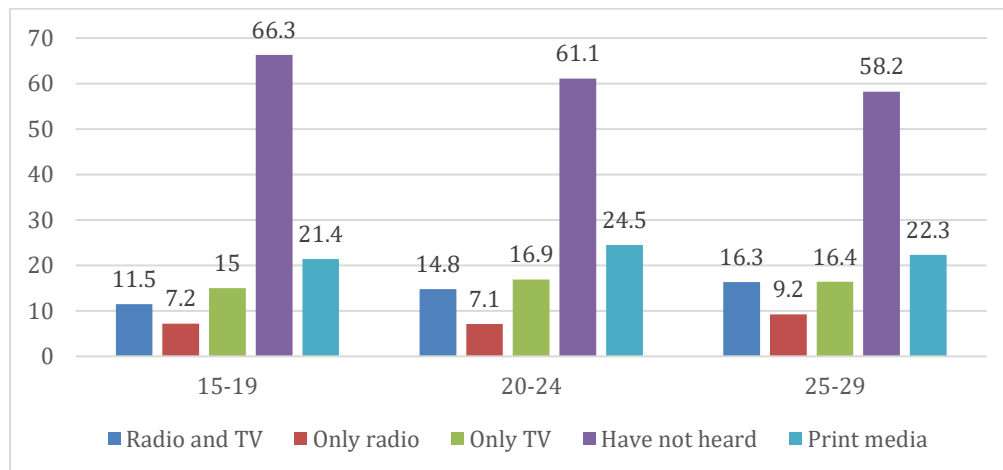


Figure 2 Peruvian women access to family planning messages

Overall the number of women who don't have access to family planning messages using traditional media in Peru is high among different age cohorts, which demonstrates

that health messages about contraception are not reaching the most needed groups. Motta et al (2017) found in their study among school-age teenagers in Peru that most of them (88%) gain information about sexuality through the Internet, television and other mass media sources. The second most used source of information on sexuality for these teenagers was their mothers (70%) and the third most used source was health care providers (69%) (Motta et al, 2017). Still, there is a need to have more information about the effective use of contraception among young women, as demonstrated in the qualitative study by Binstock and Näslund–Hadley (2011) in Paraguay and Peru.

In terms of beliefs toward contraception use, Motta et al (2017) found in their sample that most of the adolescents in Peru agree on the use of some form of contraception to avoid pregnancy (77%). However, there are some contradictions because 38% of the adolescents in this study stated that having available contraception will encourage them to be more sexually active and 23% stated that using condoms means that you don't trust your partner (Mota, 2017). These findings are problematic because they show there are strong barriers such as cultural beliefs and gender roles that are preventing men and women from using modern contraception to prevent unplanned pregnancies.

In terms of knowledge, there are also important gaps to bridge. For example, in the unpublished work by Velasque and Sihui (2019) they found that teenage girls have only some knowledge about contraception and low levels of knowledge about actual contraception use. This lack of adequate knowledge can lead to unwanted pregnancies. Many reproductive health education programs have focused on information and

dissemination about how to prevent HIV/AIDS. However, unplanned pregnancy rates are still high in this age cohort (women from 18-29 years old). For example, Kirby, Laris and Rolleri (2007) analyzed 83 studies on sex and HIV-prevention programs and found that most programs had positive effects in terms of decreasing sexual behavior but did not result in positive effects on pregnancy rates. There are a few studies that have documented that young people in the American Region, which entails the 33 countries in North America, Central America, the Caribbean and South America (World Health Organization, 2019) lack accurate information about family planning. For example, the study by Uribe, Orcasita and Vergara Vélez, (2010) in Colombia found that young students usually lack adequate knowledge about HIV prevention. Thus, it is not uncommon for young people to have inadequate levels of knowledge about sexual topics. Moreover, the study by Rodriguez-De Ávila and colleagues (2017) found that in Colombia young students had mixed opinions about contraception use. There were negative perceptions about the use of the intrauterine device (IUD) and implants, however, there were positive perceptions regarding the use of condoms and contraceptive pills. In the qualitative study by Binstock and Näslund–Hadley (2011) about teen pregnancy in Peru and Paraguay, the authors found that there are misconceptions about the use of contraception among young women. Moreover, power relationships between males and females and gender roles have negative influences on the effective use of contraception by young women so they can prevent unwanted pregnancies.

The findings of these studies are problematic because they show there is a lack of adequate information and knowledge about reproductive health among young women, as

well as misconceptions they may have related to modern contraception. Having relevant and adequate information regarding their reproductive health is critical for young Peruvian women since it can help them make the best decisions about their health and their future. Moreover, having comprehensive reproductive health programs and public health campaigns can help mitigate the lack of information these women encounter.

Access to information and communication technologies

Considering that young adults access health information through the use of information and communication technologies (ICT), it is important to include the statistics concerning access to ICT in Peru. In terms of ICT access, Peru has made significant progress the last decade. The Internet access at Peruvian households rose from 6.6% in 2007 to 32.9% in the first quarter of 2018. In the first quarter of 2018, the National Institute of Statistics and Informatics (2018e) has found that half of the population in Peru (51%) is considered Internet users. And most of them access the Internet from mobiles phones (78%). The age cohort from 19 to 24 years old represents the group who with higher access to the Internet (78.6%) compared to other age cohorts (National Institute of Statistics and Informatics, 2018e). When asked what activities they do online, 87.6% of Peruvian Internet users affirmed they sought information.

In terms of more traditional media, television and radio are still popular in Peru. Television access at the national level is at 82.1% and radio access is at 75% in the first quarter of 2018; however when comparing statistics among rural and urban areas, access to traditional media vary. For example, in Lima, the capital of Peru, the access to television is 97% and in rural areas access is 50.7%. Access to radio is 75% in Peru. It is

interesting to note that the difference in radio access in rural and urban areas is not large. For example, access to radio in Lima 77.1% and 76.8% in rural areas is comparable (National Institute of Statistics and Informatics, 2018e).

Aims of this study

This study will focus on determining the reproductive health information seeking of young college Peruvian female adults (18 to 26 years old). Reproductive health is a crucial topic for young women, and this is the age cohort where the most unplanned pregnancies tend to occur. These unplanned pregnancies are likely to be related to gaps in knowledge about reproductive health. It is essential to identify the barriers that prevent women to seek reproductive health information so public health officials can effectively address them in reproductive health education programs for young Peruvian women to help increase access to accurate and relevant health information about reproductive health.

This study will focus on how young Peruvian women seek reproductive health information to identify predictors and perceived barriers that are associated with health information seeking behaviors. To guide this research the Comprehensive Model of Information Seeking (CMIS) (Johnson & Meischke, 1993) was used to examine health information seeking in the Peruvian context.

The significance of this research is twofold. It will be useful to test the CMIS theoretical framework, so it is possible to understand which variables are most influential when young women seek reproductive health information. Also, data gathered in this study is likely to be useful for public health initiatives to shed light about the perceived

barriers women face when seeking reproductive health information. Having this knowledge can help public health organizations tailor their reproductive health messages to better inform women about modern reproductive health issues, such as contraception.

CHAPTER TWO: LITERATURE REVIEW

This chapter includes the review of the theoretical framework that guide this research as well as key concepts that will frame the current study. The concepts that would be identified and explained in this section would be the definitions of health information seeking behavior, correlates and perceived barriers of health information seeking among young adults and women.

Theoretical Framework

This study is based on the Comprehensive Model of Information Seeking (CMIS) (Johnson & Meischke, 1993; Johnson, Donohue, Atkin & Johnson, 1995) which aims to explain how health-related factors or antecedents factors (demographics, direct experience, salience and beliefs) determine how individuals perceive characteristics and utilities of information carriers which also determine information-seeking actions.

The CMIS draws its main variables from two theories, the Health Belief Model (HBM) (Rosenstock, 2000; Rosenstock, 1974) and the theory of Uses and Gratification (Blumler, 1979). The HBM was proposed by a group of social psychologist in the U.S. Public Health Service in the 1950s and aimed to explain how individuals engage in health preventive behavior. According to Rosenstock (2000), the HBM is an example of a value-expectancy theory. This means individuals desire to avoid illness or be healthy (value) and believe that a specific preventive action would help them improve their illness (expectation). Those expectations are defined by two critical variables within the HBM: perceived susceptibility and perceived seriousness. The model proposes that if an

individual feels susceptible to have a disease, and if he or she would feel the severity of the diseases on her/his life, he/she will take preventive actions to overcome barriers (Rosenstock, 1974). The Uses and Gratification Theory explained how individuals consume media in order to fulfill a need they might have. This theory posits the notion that individuals select media and that this selection is goal-oriented. Blumler (1979) explained that the Uses and Gratification Theory emerged as an attempt to determine the effect of mass communication on people. This theory also highlights the importance of considering individuals' social roles and personal situations and how these can impact people's media requirements and uses.

The CMIS borrows constructs from these two theories in order to explain how health information seeking occurs. The CMIS posits that health information seeking actions are influenced by two kinds of variables, health-related factors (Johnson & Meischke, 1993) or antecedent factors (Johnson, Donohue, Atkin & Johnson, 1995) and information carrier characteristics (Figure 3).

Antecedents

The health-related (antecedent) factors are demographics, direct experience, salience and beliefs. Demographics refer to background factors that might impact how individuals access health and how they seek health information. Demographic variables are usually used in the analysis of health information seeking analysis. These variables could include: gender, socio economic status (SES), education, place of residence, race/ethnicity and language.

There is relevant empirical data that suggests that demographics (SES, gender, age) play an important role in shaping HIS. Overall, different studies have found that

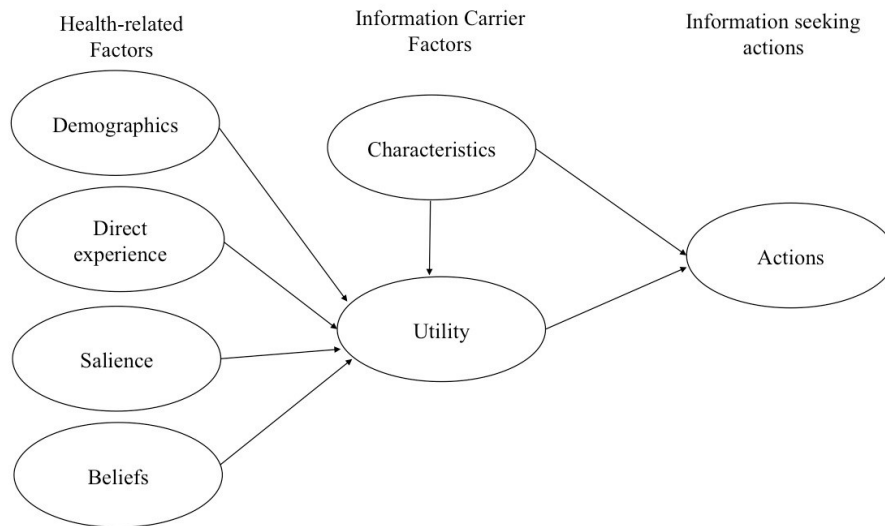


Figure 3 Comprehensive Model of Information Seeking (Johnson and Meischke, 1993)

Highly educated individuals are more likely than less educated people to seek health information through different information sources (Niederdeppe, Frosch & Hornik, 2008; Oh et al., 2012; Rakovski et al., 2012; Rimal, Flora and Schooler, 1999; Kelly et al., 2010; Hale et al., 2011). Those with higher SES tend to have better abilities to acquire media information. This finding is corroborated by the qualitative study by Bell (2014) who found that women of higher SES tend to use a wide variety of health sources such as physicians, friends, Internet, among others. Moreover, as reported by DeLorme, Huh and

Reid (2018) higher income tends to be related to perceived usefulness of professional interpersonal sources regarding prescribed drug health information. Thus, higher income individuals perceive professional sources of information are more useful.

It is also known that there are racial disparities when acquiring health information. It has been reported that language also plays a role in health care and health information seeking. Vanderpool and colleagues (2009) analyzed data from the Health Information National Trend Survey (HINTS) and found that Spanish-speaking Hispanics in the U.S. who sought cancer prevention information affirmed that it took a lot of effort to understand this type of information.

Demographics are critical variables that impact how people seek health information from different sources. Including them in a model of health information seeking is important; however, there are other variables that are also important such as the experience, salience and beliefs.

In the CMIS, the variable direct experience refers to the individual's degree of experience (Johnson, Donohue, Atkin and Johnson, 1995) with the disease or when someone in their personal network experience them (Johnson & Meischke, 1993) or an specific health situation (DeLorme, Huh & Reid, 2011).

The salience element of the model “refers to the personal significance of health information to the individual” (Johnson and Case, 2012, p. 57). For John and Case (2012) salience refers to how significant or relevant health information is for an individual; this is the underlying force that triggers information seeking. Salience is linked to the individual's underlying motives to seek specific health information (Johnson &

Meischke, 1993) and can drive certain levels of information seeking in different contexts (Johnson, Donohue, Atkin & Johnson, 1995). Salience can be operationalized as subjective probability and fear (Johnson & Meischke, 1993) or worry (Hartoonian et al., 2014). An individual's perception of his or her own relevance to the specific disease or health condition can be measured through perceived susceptibility and perceived seriousness.

Different studies on sexual and reproductive health of adolescents and young adults have used these two HBM variables to predict healthy sexual behaviors (Laraque et al., 1997). Perceived susceptibility is one's perception to get the disease. It has been shown to be a predictor of safe sex behavior such as condom use (Asare et al., 2013). Perceived seriousness is the assessment of the severity of the health problem and its possible consequences. Perceived susceptibility has been found to be related to sexual and reproductive information seeking (Chang, 2014). Perceived risk is known to be a predictor of self-protective behavior and a motivator for change according to different researchers (Rimal & Real, 2003). When one experiences risk perception, there is a likelihood of taking preventive care. For example, in a randomized controlled trial conducted by Reinwand and colleagues (2017) risk perception toward tobacco additives was associated with extensive use of a website about tobacco prevention.

Overall, perceived personal risk has been positively associated with information seeking overall (Shakeri, Evangelopoulos & Zavalina, 2018) cancer information seeking (Zhao & Cai, 2009) and cardiovascular disease information (Rimal, 2001).

Janz and Becker (1984) provided a review of 29 studies that used HBM as a theoretical framework and found that perceived barriers and perceived susceptibility were the strongest predictors for preventive health behavior.

Beliefs are key variables within the CMIS. In the model, beliefs could be measured through the self-efficacy construct, which is related to the perception an individual that he or she is competent to perform a specific task and fulfill an objective. This is a stronger predictor of behavior change and also people who feel they are efficacious while seeking health information are more likely to seek health information (Rakovski et al., 2012; Rimal & Juon, 2010; Rimal & Real, 2003). Go and You (2018) found that self-efficacy is highly associated to health information seeking on cancer using the Internet. Beliefs could also be measured through the ability to engage in preventive behaviors (Ruppel, 2016). Overall, studies have found that efficacy beliefs are associated with information seeking (Zhao & Cai, 2009; Rimal, 2001).

Thus, beliefs are essential variables when studying HIS. Understanding the underlying beliefs individuals hold about their health would let me know why they seek health information, or why they avoid health information in specific contexts. Personal beliefs can affect how people seek health information prevent getting sick.

Beliefs can predict how individuals seek health information, especially for minority groups in the US such as Korean Americans (Oh, et al., 2012). Perceived barriers are important beliefs to consider when predicting engaging in healthy safe sex behaviors among young adults. For example, in the study conducted by Asare and colleagues (2013) among young African Americans, the perceived barrier factor was an

important predictor of condom use. Different perceptions of the barriers in seeking reproductive health information seeking can be found in studies that include males and females in their sampling. There are gender differences in how individuals perceive barriers related to their sexual and reproductive health (Laraque et al., 1997).

Information-carrier characteristics

According to the original model by Johnson and Meischke (1993) information carrier characteristics refer to message-content attributes such as editorial tone (perceived credibility) and communication potential (style). Editorial tone is the individuals' perceptions of the credibility and intentions of the source while the communication potential refers to how information is presented and is more related to style and comprehension (Johnson & Meischke, 1993). In the study by Johnson, Donohue, Atkin, & Johnson (1995), characteristics were measured as perceived characteristics of the specific source, its accuracy and difficulty to be understood. It is important to note that different studies have operationalized information carrier characteristics in different ways. For example, Ruppel (2016) measured it as perceived trust and the function of the information source. Basnyat, Nekmat, Jiang and Lin (2018) measured it as trustworthiness of the source. Hartoonian and colleagues (2014) measured this variable as quality of information and understandability of the information individuals obtained. Overall, the role of information carrier characteristics is critical within the model since it influences how individuals seek health information. Information carrier characteristics might influence health information seeking actions through Utility. Hartoonian and

colleagues (2014) found that information-carrier characteristics had an indirect effect on health information actions through utility.

Information-carrier utilities

According to Johnson and Meischke (1993) utility refers how the information provided by the source meets the needs of the seekers. If individuals perceive the information is relevant and useful, the perceived utility will be higher. Seekers aim to match their information needs with the information provided by the source (Case, Andrews, Johnson & Allard, 2005). According to the original model, perceived utility is determinate by the personal factors (Johnson and Meischke, 1993). In the study by DeLorme, Huh and Reid (2011), perceived usefulness of no advertising of Internet sources was positive correlated to age, education and income. Previously, utility has been operationalized as general trust in the information source and confidence in getting the health information (Hartoonian et al, 2014; Van Stee & Yang, 2018). Other studies have operationalized it as perceived usefulness (Paek, Choi & Hove, 2017) in a specific information source such as prescription drug information (DeLorme, Huh & Reid, 2011).

Health information seeking actions

Health information seeking actions include all activities that are related to the information-seeking behavior. According to Lambert and Loiselle (2007) health information seeking has two main dimensions: the information dimension and the method dimension. The information dimension refers to the characteristics of the information individuals seek, and the method dimension refers to sources used by individuals and the different strategies used to acquire the information. Similarly, Lenz (1984) has identified

three dimensions of information seeking: method, scope and depth. Method refers to the source selected, scope refers to the diversity of the search and depth refers to the extent of the information seeking using one particular source.

To summarize, the CMIS represents how health-related factors (personal factors) motivate or influence information-seeking actions through the information-carrier factors (characteristics and utilities).

Health information seeking

Information seeking can be understood as an intentional acquisition of information from specific communication channels (Johnson and Case, 2012). According to Ikoja-Odongo and Ocholla (2003), information seeking is a process in which an individual looks for information and it is considered a complimentary process to information need.

Studies on information seeking have found that people usually sought information through interpersonal sources (Tardy & Hale, 1998; Pennbridge, Moya & Rodrigues, 1999; Aaronson, L., Mural, C., & Pfoutz, S., 1988), printed media such as books (Aaronson, Mural & Pfoutz, 1988) mass media source (Case, Johnson & Andrews, 2004; Gollop, 1997) and lately from the Internet (Pennbridge, Moya & Rodrigues, 1999; Bundorf, Wagner, Singer & Baker, 2006). The development of health information seeking behavior (HISB) was accompanied by a new medical approach, a more patient-centered model and consumer-approach in healthcare where providers and patients can interact effectively (Cegala, 2007). This new model was designed to replace the more traditional biomedical and paternalist model. It suggested a more participatory and

engaging role for the consumer/patient to perform in making important medical decisions (Cohen et al, 2016). A more participatory role was expected with this new model, which meant that consumers and patients would now need to engage in more active health information seeking.

Health information seeking is a dynamic and complex concept. It is not an all or nothing phenomenon (Lambert & Loiselle, 2007). It is an active and intentional effort to pursue information regarding health (Johnson & Case, 2012; Griffin, Dunwoody & Neuwirth, 1999). It could also be defined as the purposive acquisition of information from selected sources (Johnson & Case, 2012). It is usually an active search for more information related to an event (Niederdeppe, Frosch, & Hornik, 2008). Health information seeking also refers to how actively people search for health information (Viswanath, Ackerson and Von Elm 2011).

Miwa (2012) affirmed that information seeking initiated unexpectedly when patients perceived a gap or anomalous state of knowledge. Information literacy is clearly the new basic skill set of the 21st century (Lowe and Eisenberg, 2012). Even though authors differ on the concept of HIRB, it seems they all agree on the goal-oriented notion of the concept (Johnson and Case, 2012; Niederdeppe, Frosch, & Hornik, 2008; Viswanath, Ackerson & Von Elm 2011). Some authors suggested that in health-threatening situations people seek health information to reduce uncertainty (Rimal & Real, 2003; Rimal, 2000; Reinwand et al, 2017). However, there also are cases when people are avoiders of health information (Strekalova, 2014). For example, Miller (1987) has proposed different types of health information seekers, the monitors (seek

information) and blunters (avoid information). Both types have positive and negative consequences. In the case of cancer patients, monitors tend to seek extensive health information, but this can cause worry and anxiety if their information needs are not met. On the other hand, blunters tend to avoid health information; this can be detrimental to their involvement and engagement in patient-doctor encounters.

Characteristics of health information seeking

Health information seeking is goal-oriented, a stimulus or an information need usually triggers the behavior. In their literature review of how to define health information seeking, Lambert and Loiselle (2010) shed light on how this construct has been operationalized: type of information (prevention, self-management, self-care, etc.); amount of information (the extent of the details); sources used (type and number of sources, frequency of use); and describe actions implemented (sharing, asking questions to doctors, reading books, reading, browsing online).

In other words, HISB could be seen as a catalyst that could contribute to enhance health outcomes. Furthermore, Rimal and Real (2003) affirmed that health information-seeking behavior could be conceptualized as a form of self-protective behavior.

Traditionally, people have sought information from interpersonal sources such as friends, acquaintances, neighbors and other significant sources (Oh, et al., 2012). However, with the diffusion of the Internet and digital communication, this behavior has changed tremendously, with the Web becoming a favorite source of information for many populations (Syn & Kim, 2016; Johnson, et al., 2006). With the accessibility and convenience of digital sources, people aim to learn more about any specific topic, and to

reduce their anxiety and stress when dealing with illnesses (Rimal & Juon, 2010). According to Fox and Duggan (2013) 59% of Americans reported having searched online for health information in 2013. Kahlor (2010) mentioned in her article that just a quick search on Google using the keywords “health questions” yielded 1.2 million web pages. However, many times, young adults don’t have the required skills to seek health information effectively. Having accurate, and relevant health information can be an important aspect to inform health promotion efforts (Kreps, 2008) and to have good health overall effectively evaluating the credibility and usefulness of each information source becomes an issue (Chen and Feeley, 2014).

Health information seeking could also start as a non-intentional search of health information (scanning) as described by Longo (2005) in the case of cancer prevention among women or cancer screening in the general population (Hornik et al, 2013). Health information scanning occurs when one comes across health information in routine use of media, or when talking with others about health issues. Kelly and colleagues (2010) posit that health information-seeking behavior and health information scanning both affect health decision-making. Scanning is low involvement, passive behaviors, and are not planned or goal-oriented. In other words, HISB is more active and purposeful. It has a clear aim or objective while scanning information is just browsing information without paying much attention to what we read or see. Kelly and colleagues (2010) found that majority of people are scanners of health information and a minority are seekers of health information.

Considering how health information seeking has evolved through the years and identifying the different sources available for individuals is critical to understand how they make the decisions to use one or several sources to inform their health decisions. Understanding how individuals seek health information is critical to start exploring how young Peruvian women seek reproductive health information.

Predictors of Health information seeking

Multiple factors have been shown to predict health information-seeking behaviors such as personal characteristics, demographics and accessibility. People living with chronic conditions are more likely to seek information (Bundorf, Wagner, Singer & Baker, 2006) or individuals who have an illness tend to seek health information about their specific health issue (Graffigna, et al., 2017; Sharma and Kahlon, 2015) as do people who are exposed to some particular health constraints such as HIV (Prawanti, et al., 2015) or cancer (Kelly et al., 2010; Oh et al., 2015) or those who have poorer health (Hale et al., 2011). Also, people tend to seek specific information according to their lifestyle, such as tobacco consuming (Nguye, et al., 2017), vaccination (Lee & Kim, 2014). Much of the research on health information seeking is related to some particular illness such as cancer (Niederdeppe, Frosch, & Hornik, 2008; Birhanu, et al. 2012).

In terms of age, adolescents and young people are eager seekers of health information (Hackman & Pember, 2016; Syn and Kim, 2016; Ahmad, 2017). There have been studies of health information-seeking behavior in other contexts besides the US, such as in Srinagar, India (Sharma & Kahlon, 2015) and in Egypt (Ghweeba, et al., 2018) showing that demographics play a role in health information seeking. For example, more

highly educated individuals are more likely than less educated people to seek health information (Niederdeppe, Frosch & Hornik, 2008; Oh et al., 2012; Rakovski et al., 2012; Rimal, Flora & Schooler, 1999; Kelly et al., 2010; Hale et al., 2011).

Accessibility means that if people have access to health information sources such as the Internet or other digital sources, the likelihood of health information seeking will increase. In the Peruvian context, accessibility to information sources is a key element to promote health information seeking, especially if we want to examine disparities among people residing in rural and urban parts of Peru. In the U.S., Case and colleagues (2004) found that Americans preferred the Internet to seek information about cancer genetics. The Internet is a popular source of health information for young adults. In the quantitative research conducted by Syn and Kim (2016), one of the findings was that college students prefer to read posts related to health on Facebook instead of posting questions regardless of the topic sensitivity. They also found that when the topic is less sensitive, college students are eager to seek health information through family and friends instead of the Internet. Thus, for more sensitive topics such as sexual health issues, they tend to seek information online and when it is a less sensitive topic such as allergies, they talk with friends. This gives us important insights about how college-aged students consume health messages. In their study, Ahmad and Khan (2017) found that young students prefer the Internet to seek health-related information if they perceive it as useful.

In the qualitative study conducted by Hackman and Pembers (2016) in a Southern university in the US, the researchers aimed to explore the use of social media by undergraduate students. Researchers found that all of the respondents reported that they

received health messages passively using this type of media and most of them actively sought health information. As we can see, social media represents a key source to disseminate health information for this target population. In Peru, the access to digital technologies is not so well developed and disseminated. For example, the media consumption study by the Consejo consultivo de Radio y Televisión- Consulting Committee of Radio and Television (2018) in Peru found in a study that Internet access was 53% and 6% in urban and rural areas respectively, however, the access to cell phones was 27% and 43% in urban and rural respectively.

Correlations of health information seeking

There are studies that have proved different correlations between health information seeking and positive health outcomes. For instance, Basu and Dutta (2008) found that there is a positive correlation between health information seeking and community participation, which can lead to increased social capital, and positive health outcomes. In their research, Rimal, Flora and Schooler (1999) found that health information-seeking is an important predictor for health knowledge and overall health, however, having more health knowledge does not necessarily turn into adoption of health behaviors. Health information seeking can increase knowledge of family members and patients living with cancer (Andreassen, et al., 2005; Muha, et al., 1998) and informed decision-making about cancer (Muha, et al., 1998; Davison, et al., 2002), and can increase perceptions of control for cancer patients (Echlin & Rees, 2002). There are also some behavioral outcomes of health information seeking behavior. For example, Gray and colleagues (2005) found that health information seeking of adolescents can increase

their self-care abilities, and can also improve nutrition during pregnancy of women (Szwajcer, et al., 2005). Shi, Nakamura and Takano (2004) found in their research over three years that middle-aged Japanese men who consciously sought health information reported a positive change in their health. In terms of used information sources, Dutta-Bergman (2004) found that people who seek health information from interpersonal sources, Internet and newspapers and magazines were more likely to be health conscious and health information oriented, hold strong health beliefs, and engage in healthy activities, compared to people who sought health information from radio. Zhao (2014) found that receiving diabetes information through interpersonal sources, newspapers, magazines and the Internet was positively associated with diabetes knowledge among Hispanics in the U.S. In the dissertation research by Kavathe (2009) results showed that health seekers are more likely to choose sources of online health information that can generally are considered reliable.

Motivation to protect others is also associated to wanting to obtain health information (Grasso & Bell, 2015). Dutta-Bergman (2003) stated that there is also an intrinsic motivation within persons to seek health information. Curiosity also represents a predictor to seek health information even though they do not perceive a health risk. In their study, Grasso and Bell (2015) found that curiosity was the most frequent reason for health information seeking related to hypertension, hypercholesterolemia and diabetes scenarios, especially after a doctor's visit. Savolainen (2013) proposes an interesting approach to motivators for information seeking. According to his research, information seeking is more complex than it seems. He found the main motivators for information

seeking in the attribution theory proposed by Bernard Weiner (2010). This theory revolves around the idea that information seeking depends on personal motivation and what he called “cognitive-affective elements” which affects learning and information seeking. Another predictor of health information seeking is efficacy; for example, according to Afifi and Weiner (2006) interpersonal efficacy predicts information seeking in close relationships concerning sexual health.

Knowing the correlations of health information seeking is important because it can guide the associations the current study can make between specific variables such as demographics and health information seeking in the Peruvian context.

Young adults and health information seeking

Individuals develop their health behaviors and habits during their youth, so this is a critical stage of life (Harris, 2010). It is important to determine what health seeking behaviors young adults have. They are transitioning from their teenage years into adulthood. This time of life is full of discovery and development; however, this time is also a time of increased risk and vulnerability. There are plenty of studies that suggest that young adults are more prone to engage in risky behaviors such as binge drinking (Norman, 2011), driving under the influence, and engaging in risky sexual practices (Tyson, Covey, Rosenthal & Kazak, 2014), among other behaviors that are detrimental to their health. Sexual and reproductive health represents a critical topic for this age group. For example, the Centers for Disease Control and Prevention (2017) included in its website important information about young adults and sexually transmitted diseases (STDs). The CDC (2017) estimates that this age group is especially vulnerable to STDs

since half of new STDs occur with people who are 15-24 years of age. Unplanned pregnancy is also a critical topic for this age cohort as discussed in the statement of the problem section of this study. In this sense, there is no doubt that sexual and reproductive health is a critical topic for this age group. However, knowledge about sexual and reproductive health can be limited for this age group (Moore & Smith, 2012).

Young people, and especially college students, are a population that seems to seek health information quite often about sexual health since it is a salient topic for young adults (Siebold, 2011; Wong, 2014; Afifi & Weiner, 2006). Sexual and reproductive health information-seeking behavior among college students is complex because it is related to a private topic (sexual health), and it depends on factors at three different levels: personal, interpersonal and environmental. Women can be particularly vulnerable to health risks concerning sexual and reproductive health based on specific context. The factors that could influence how young women seek reproductive health information could be measured at the individual level such as motivation to seek sexual health information, self-efficacy and risk perception, at the interpersonal level, factors such as communication efficacy, and at the environmental level, factors such as the ways that culture and gender roles influence how women seek reproductive health information.

Interpersonal factors could be explained by how individuals communicate about this sensitive topic. The study by Liu (2012), which gives us important insights into the behavior of how Chinese young women communicate regarding sexual topics found that young participants acknowledged that culture plays an important role in the Chinese society, and that the traditional Chinese value system does not let them speak openly

about sex. Moreover, Chang (2014) found in her study that vulnerability and level of communication efficacy play important roles in determining students' sexual health-seeking behavior in an undergraduate communication program at a university in Singapore. This means that if young adults perceive risk and they feel confidence in their ability to communicate with others about sexual health-related topics, they would likely seek sexual health information from interpersonal sources (best friends). This is confirmed by Rittenour and Booth-Butterfield (2006) who found in their study that college-aged students usually discuss sexual health topics with their peers and feel comfortable about it. The most discussed topics were birth control methods, STDs, abortion, fear of pregnancy and sexual partners. Siebold (2011) found that adolescent women trust their mothers and peers as trusted sources of sexual health information. Whitfield, Jomeen, Hayter, & Gardiner (2013) found that adolescents find informal sources such as best friends and mothers as the most useful sources of information for sexual topics. Informal sources can influence adolescents' decision making about sexual health, which can lead to misconceptions among young women.

At the environmental level, the dissertation research study by Gambetti (2003) shows that cultural factors are contributors to sexual risk-taking behavior in Mexican-origin adolescents in the U.S. Her research on young women's sexual health and migration shows that variables such as migration, family socioeconomic status and education could contribute to young women's risky sexual behaviors (not using contraceptives, adolescent pregnancy and childbearing).

The findings of these studies that are focused on health information seeking of young adults and women shed light on the importance of understanding how the health information seeking process unveils important barriers and predictors of the health information seeking. Identifying these predictors and barriers will guide the current study to include the most critical variables into the proposed hypotheses.

Culture and health

Culture is a critical factor that shapes health communication and health information seeking. Beliefs, language and gender roles are part of one's culture. It is key to acknowledge the importance of these cultural markers in health communication.

Beliefs and values can be significant predictors to seek health information, especially for diverse ethnic groups in the US such as African Americans (Osborn et al., 2011), Hispanic Americans (Gambetti, 2003) and Korean Americans (Oh et al, 2012). Beliefs about certain health conditions such as pregnancy are shaped by culture as well. When we focus on cancer rates, African Americans have highest cancer burden among any other US ethnic group. There are disparities in access to health care, however, there is also attitudinal behavioral factors influencing health outcomes. There is evidence that suggests that many times this ethnic group does not adopt recommendations for preventing cancer. These groups do not tend to participate in screening tests.

In the case of Hispanic Americans, Kar, Alcalay and Alex (2001) affirmed that “cultural capitals” could serve as buffers for health outcomes for this ethnic group. For instance, Hispanic families in California have lower infant death even though their access to prenatal care is lower than other minority groups. It is expected that because Hispanic

women don't access prenatal care, their health outcome would be negative (more infant deaths), however, this is not the case. Trying to explicate this phenomenon, the author called it "the cultural paradox," and affirmed that it might be due to the social support system of Hispanic families for women during pregnancy.

The extended and stronger family ties among Hispanic culture could be one of the explanations of this paradox. This is a clear example of how culture can positively influence health outcomes through social support. On the other hand, there are other beliefs that are detrimental to health information seeking among Hispanics. For example, the beliefs about fatalism play an important role in deciding to seek health care. Fatalism is the perception of having limited influence in the course of one's own life, and that life events are due to fate and due to external forces such as God's will (Kar, Alcalay and Alex, 2001). Fatalism has important implications for health promotion efforts and health care because it can prevent people from engaging in preventing behavior or participate in screening programs. Fatalism is related to culture, and health care providers should be aware of this in order to tailor their health promotion efforts to reach these populations. Beliefs and values can also impact access to contraception as shown in the dissertation research study by Gambetti (2003). The author found that cultural factors contribute to sexual risk-taking behavior in Mexican-origin adolescents in the U.S. Her research on young women's sexual health and migration shows that variables such as migration, family socioeconomic status and education could contribute to young women's risky sexual behaviors (not using contraceptives, adolescent pregnancy and childbearing).

In the case of Asian Americans, the role of social support and health information seeking of Korean American immigrants is significant (Kim, Kreps & Shin, 2015).

Informal social networks as family and friends represent an important source to seek and obtain health information for Korean Americans, especially related to health topics such as cancer (George & Kagawa Singer, 2015). Wang and Yu (2015) found that acculturation played an essential role in predicting what sources of health information immigrant Chinese-Americans would use. Acculturation strategies can determine the sources and the language of the sources people select when searching for health information. In their study, they found that young and well-educated first-generation Chinese immigrants used a wider range of online health information sources.

Ethnicity and cultural backgrounds correlate with socio economic status in the US. Since these two elements are intertwined, both can influence health information seeking. Sutton and Walsh-Buhi (2017) affirmed that both ethnicity as well as socio economic status (SES) plays a critical role when women seek contraception information. For example, women who come from higher SES groups tend to have a wider range of options when seeking health information. Many times, women from minority groups don't access trustworthy sources such as medical doctors because of their lack of insurance or lack of English proficiency. This causes them to trust in laypersons such as friends or family members for health information. These informal sources are well intentioned but not provided adequate and accurate health information all the time.

Gender roles are another influence to consider when dealing with individuals from different cultures since they can weight on reproductive health decisions among

women (Binstock & Näslund-Hadley, 2011). In the Hispanic communities, male-dominance and patriarchy are common. In Hispanic cultures it is expected that women hold more traditional roles and stay at home and provide childcare while men hold the role of providers and protectors of the family (Kar, Alcalay & Alex, 2001). These roles can definitely shape how women seek health information about their sexual and reproductive health.

Language proficiency and health literacy are also important factors when dealing with different cultures. In their study with Haitian immigrants in New York City, Lubetkin et al. (2015) found that their low levels of health literacy hindered health information seeking. Their inability to speak English was also detrimental to their health information seeking from doctors. Instead, they relied heavily on family and friends. Because the Haitian Creole cultural group is primarily a verbal-oriented community, the community-members tend to rely on interpersonal sources for their health information. Furthermore, Osborn et al. (2010) also found that there are important differences in diabetes medication adherence practices between African American and Whites. One of the explanations for these health practices differences was that minority groups often have lower literacy levels than other segments of society. Language also plays a role in health care and health information seeking. For instance, in their study, Vanderpool and colleagues (2009) analyzed data from the HINTS and found that Spanish-speaking Hispanics in the U.S. who sought cancer prevention information affirmed that it took a lot of effort to understand this type of information. The lack of language proficiency can lead to frustration and negative attitudes toward health seeking. The research evidence

suggests that there are racial disparities when acquiring health information and health care professionals should consider this when delivering care for minority groups (Dutta & Kreps; 2013; Kreps, 2018; Oh et al, 2015; 2014; 2011).

Therefore, it is significant to recognize the different patterns of health information seeking of specific ethnic groups. It is expected that in this research cultural factors come into play when young women seek reproductive health information. Besides culture, different health studies have identified specific barriers that women face when seeking reproductive health care or reproductive information. The next section aims to explore what other authors have found regarding these perceived barriers.

Perceived barriers

Hernandez and colleagues (2006) found that women who experienced reproductive tract infections in a poor area in Lima, Peru experienced stigma when looking for health care. This is not uncommon since cultural norms and traditions are very relevant in Peru considering sexual and reproductive health is a taboo topic.

Bersamin, Fisher, Marcell and Finan (2017) found that females that perceive more social disapproval were less likely to receive sexual and reproductive health care in a college setting. Bender and Fulbright (2013) identified in their content analysis four types of barriers for teenagers and young adults to accessing sexual and reproductive health services: service access, service entry, quality of services and personal factors. In their study, Thatte et al. (2016) found that feeling embarrassed or shy was one main barrier to access sexual and reproductive care services in Ghana. And in her dissertation research Thatte (2017) found that the top three commonly reported barriers for women to access

sexual and reproductive services were embarrassment, fear of safety (of contraception) and high cost.

According to the content analysis by Bender and Fulbright (2013) about the perceived barriers to sexual and reproductive health services access by young people, factors related to the service can be crucial barriers. For example, they found that barriers included lack of trust in health care providers, issues of confidentiality, or because young people perceived health care providers as being judgmental or disrespectful towards them (Bender & Fulbright, 2013). Nikiema, Haddad & Potvin (2012) also identified psychosocial, socioeconomic and geographic barriers when women access health care services in Burkina Faso.

Lack of knowledge about how modern contraception works has been reported as a perceived barrier in the study by Hall and colleagues (Hall et al, 2016). Social norms are also strong correlates of sexual behavior and contraception use among Latinas. A study by Unger and Molina (2000) found that what they defined as low-accultured Latina women face cultural and social barriers to use contraception to prevent pregnancy.

Identifying these barriers can be useful for the current study because these variables can be added to the Comprehensive Model of Information Seeking by Johnson and Meischke (1993). Including perceived barriers is critical in the Peruvian context because of the stigma that sexual and reproductive health can generate among young women.

CHAPTER THREE: METHODOLOGY

This chapter discusses the research method used to develop this study. First, characteristics of the study will be discussed; population and sampling techniques will be also discussed. Third, data collection and tools will be described. Hypotheses, research questions, variables and measures will be explained.

Characteristics of the study

This was a cross-sectional study conducted in Lima and Huancavelica, Peru during November and December 2019. A partnership was established with local professors and administrators from three colleges in Peru. Female students completed an online survey that measured their health information seeking behavior related to reproductive health (contraception information). The survey administration was conducted in partnership with local authorities and administrators in the Peruvian universities so they could help recruit the student respondents for the study.

Population and sampling

Female students aged from 18-26 years old were recruited to participate in the study. The population of this study was female college students in Peru. According to statistics from the Ministry of Education of Peru (2017), nearly 16% of young adults access higher education in Peru. In 2010, 14.8% had completed some college degree and 10.2% of women had completed a college degree.

A nonprobability convenience sample was used so college female students could be reached through the universities' list serves. A purposive convenience sample was an

appropriate fit for this study because participants with specific characteristic were needed; young female students aged 18-26 years old were required to complete the survey. Three colleges were selected as part of the project. Female students were invited to participate in filling out an online survey. The survey consisted of 35 questions related to their health information seeking behavior on modern contraception.

A convenience sample was collected through professional (professors) contacts at colleges in Lima and Huancavelica. Students from different academic departments participated in the data collection. There are challenges to overcome with this type of sampling such as results might not be generalizable to the whole population, however, this type of sampling is acceptable because the aim of the study is to explore the health information seeking of a specific population in a complex context.

Objectives of the study:

Determine the health information-seeking behaviors (reproductive health and contraception information) of young Peruvian women (18-26 years old)

1. Determine the predictors, correlates and perceived barriers of reproductive health information seeking
2. Assess the Modified Comprehensive Model of Information Seeking of Johnson and Meischke (1993) in the Peruvian context

Overall, this study aimed to examine the CMIS as a framework for reproductive health information seeking using different sources by young Peruvian women. It also aimed to contribute to understanding the main variables that come into play when young Peruvian women seek health information about reproductive health and contraception.

Data collection strategies and tools

The data collection took place during late November and first week of December 2019. The survey was available online and was in Spanish. The survey was pre-tested with Spanish-speaking young women to determine its accuracy and understanding in Spanish. The first page of the survey included the Consent Form so participants were able to agree on the research procedures before completing the survey. Approval from the IRB from George Mason University was obtained before collecting data.

Consistent with the conceptual model (Johnson & Meischke, 1993) and previous empirical results (DeLorme Huh & Reid, 2011; Basnyat et al., 2018; Hartoonian et al., 2014; Van Stee & Yang, 2018), the following research questions and hypotheses are proposed:

RQ1) What is the association of personal background characteristics (direct experience, salience and beliefs) to the perceived utility of the information source?

The antecedent factors –direct experience, efficacy beliefs and perceived risk – are positively associated with perceived utility (H1-H3). In extending the CMIS framework, it is expected that perceived barriers (social disapproval and psychosocial) would be negatively associated with perceived utility (H4 and H5).

RQ2) What is the association of perceived source trust to perceived utility; the association of perceived trust with information seeking and the association of perceived utility with information seeking?

Based on the CMIS (Johnson & Meischke, 1993), concerning information-carriers characteristics, I hypothesize that trust would be positively associated with perceived utility (H6). And that perceived trust would be positively associated with health information seeking (H7), and that perceived utility would be positively associated with health information seeking (H8).

The following figure includes the hypotheses proposed:

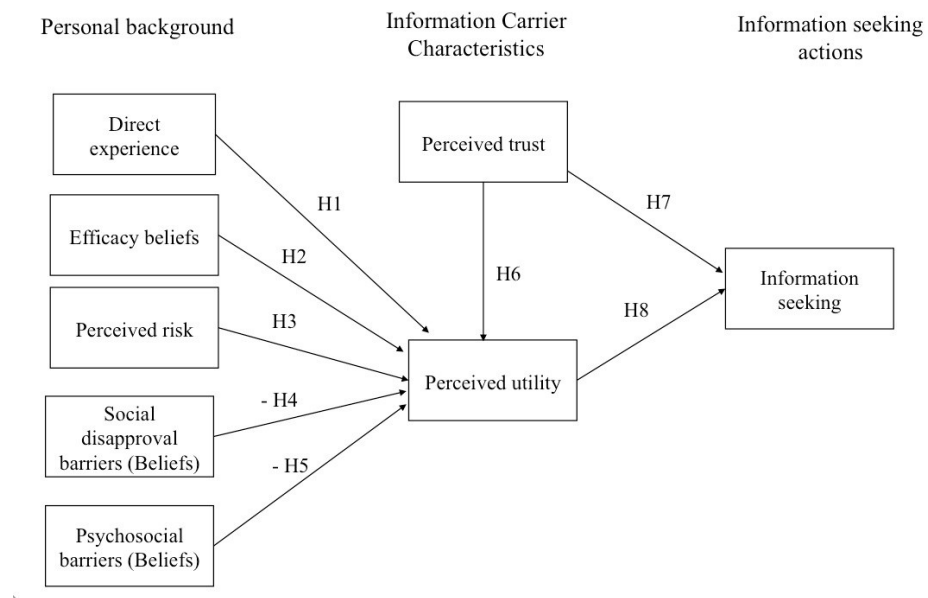


Figure 4 Modified CMIS

Measures

Family income: this variable will be measured through a question about the family income. (1) How much does your family make each month? (Less than 1,000 soles; 1,000-1,500 soles; 1,501-2000 soles; 2,001-2,500 soles and More than 2,500).

Place of residence & Language: this variable will be measured through asking participants to answer in which region of Peru they currently live. The options for this item will be two: Lima and Huancavelica. The language question would be asked with one item (1) What was the first language you learned to speak at home? (Spanish/Quechua/Other).

Highest Education Level of parents: this variable will be measured through asking participants to answer the educational attainment of both of their parents. The options will be the following: Elementary uncompleted, Elementary completed, High school uncompleted, High school completed, Some college, College completed, Graduate.

Personal relevance variables

Direct experience: this variable will measure young women's use of modern contraception. The item will be (1) Have you ever used any modern contraception to avoid pregnancy? Yes/No (2) Do you currently use any modern contraception to avoid pregnancy? Yes/No

Modern contraception is condoms, birth control pills, IUDs, shots.

Efficacy beliefs: it is defined as the belief that one has the capacity to perform an action that will lead to a specific objective. Self-efficacy is contextual and is a key element when dealing with health behaviors. This construct has been included in different studies among young adults when studying sexual and reproductive health. This construct will be

measured through the modified scale proposed by Go & You (2018) for cancer information. “Overall, how confident are you that you could get advice or information about reproductive health (contraception) and “Overall, how confident are you about your ability to take good care of your reproductive health”. The values for the original scale were ($M = 3.82$, $SD = .76$, $r = .29$). One item was added “Overall, how confident are you about your ability to prevent an unwanted pregnancy”.

Perceived barriers (Beliefs): an important addition to the CMIS model will be the perceived barriers variables. Considering the cultural, religious and social norms of the Peruvian context, perceived barriers to reproductive health information seeking would be important to consider. Items from Bersamin, Fisher, Marcell and Finan (2017) will be modified. In their study about barriers to reproductive health services among college students in California, USA, they created a sub-scale of barriers called “social disapproval” made up of 4-items: disapproval by friends, disapproval by parents, embarrassment and concerns about privacy ($\alpha = 0.78$). Response options ranged from 0 (Not at all difficult) to 3 (Very difficult). These sub-scale options were modified to 5-item Likert scale (1=Strongly Agree, 5=Strongly Disagree). Besides the items used by Bersamin, Fisher, Marcell and Finan (2017), items concerning partner’s disapproval was added (I don’t seek reproductive health information because my partner would disapprove it). The item “I am worried about confidentiality and privacy issues” was dropped from this subscale because it was related to information carrier characteristics. Items from Nikiema, Haddad and Potvin (2012) were also included in the study as psychosocial barriers. This overall scale had an adequate internal consistency. Cronbach’s

alpha was estimated at 0.75. The index included 7 items about the difficulties women face when accessing healthcare. They were asked if the item represented “a big problem or not a big problem.” The psychosocial barriers of the scale were used for this study. See Appendix A to revise all statements.

Perceived risk: this variable was measured using unintended pregnancy because this is clearly related to health information seeking about contraception. To measure perceived risk, the scale proposed by Chang (2014) was used. It has a good fit with a .88 average alpha score. The original scale had three statements because it asked the perceived vulnerability of unwanted pregnancy, HIV/AIDS and STIs. In this study, perceived risk was measured through the following statement (1) Compared to other women your age, how likely are you to deal with unwanted pregnancy? Responses were measured on a 5-point scale ranged from “much less likely” to “much more likely”. In order to include one more statement to measure the variable, the question used in the studies by Smith, Gerrard & Gibbons (1997) was used since these authors measured the absolute perceptions of vulnerability and comparative perceptions of risk. Authors suggested that both constructs are not redundant, so it is relevant to use both of them to measure perceived susceptibility. The statement was “How likely is that you will have an unplanned pregnancy in the next year?”

Information carriers

Characteristics: for perceived characteristics of the information source, perceived source trust was measured. Following the similar questions about source trust proposed by Ruppel (2016) was used. (1) “In general, how much would you trust information about

contraception from each of the following sources” Possible responses ranged from (a lot of trust) to (not at all).

Perceived Utility: in this study, utility was operationalized as perceived usefulness. This means that if information provided by a source fulfills the needs of the information seeker. Is the information relevant and important for the individual’s purposes? (Johnson, Donohue, Atkin & Johnson, 1995). Perceived usefulness was measured using a series of 5-point scale with two items. “The information I found using (information carrier) was” (1=not at all useful, 5=very useful).

Health information seeking actions

In this study, health information seeking actions was measured with the frequency of search. Modified items from Chang (2014) was included in the study. The original items were measured on a 5-point scale with 1 representing never and 5 very often (Cronbach’s α 0.78, $M = 1.79$, $SD = 0.72$). The statement that was included in this study was being the following: “During the past six months, how often have you sought information about contraception from any source?” Responses went from (5=Very frequently to 1=Never). For further details on the answer options, please revise Appendix A.

CHAPTER FOUR: RESULTS

Peruvian females students from 18 and 26 years old completed an online survey regarding their information seeking on reproductive health, specifically related to contraception information. More than 900 students completed some part of the survey; however, a total of 623 young women successfully completed the entire questionnaire. Responses were collected in November 2019 and December 2019 from three colleges in Peru.

Description of the sample

The mean age of the sample was 21 years (SD=2.3). Most of the respondents in the sample live in Lima (n=436, 69%) and the rest of the respondents reside in Huancavelica (n=199, 31%). The SPSS program was used to obtain frequencies and descriptive statistics of the sample. Details of the main demographic variables can be found in Table 1. Table 2 shows means and standard deviation of the main variables of the study.

Table 1 Demographics

Variable	N	%
Age		
18 years old	105	16.5
19 years old	90	14.2
20 years old	97	15.3
21 years old	94	14.8
22 years old	81	12.8
23 years old	63	9.9
24 years old	49	7.7

25 years old	27	4.3
26 years old	29	3.6
Place of residence		
Rural	199	31.3
Urban	436	68.7
Mother language		
Quechua	80	12.7
Spanish	548	87.3
Family income		
Less than 1,000 soles	223	35.7
Between 1,000-1,500	84	13.5
Between 1,501-2,000	76	12.2
Between 2,001-2,500	57	9.1
More than 2,501	184	29.5
Mother's education		
Some school	194	30.5
Completed high school	118	18.6
Some college	88	13.9
Completed college	105	16.6
Masters degree	40	6.3
Technical degree	89	14.0
Father's education		
Some school	150	23.8
Completed high school	168	26.7
Some college	48	7.6
Completed college	122	19.4
Masters degree	57	9.0
Technical degree	85	13.5
Civil status		
Living together	24	3.8
Separated	7	1.1
Single without a partner	363	58.2
Single with partner	217	34.8
Married	13	2.1
Religion		
Yes	356	57.1
No	268	42.9
What religion		
Catholic	235	66.0
Evangelical	90	25.3
Other	31	8.7

Table 2 Main variables

Variable name	Minimum	Maximum	Mean	SD	N
Direct experience	.00	1.00	1.69	.79	947
Efficacy beliefs	1.00	5.00	3.64	1.09	946
Social disapproval barriers	1.00	5.00	2.03	1.09	694
Psychosocial barriers	1.00	5.00	3.22	1.22	677
Perceived risk	1.00	5.00	1.69	.79	947
Perceived source trust-Internet	1.00	4.00	2.38	.69	944
Perceived source trust - Doctor	1.00	4.00	3.37	.80	944
Perceived source trust-Friends	1.00	4.00	2.20	.74	944
Perceived source trust-Family	1.00	4.00	2.73	.82	944
Perceived source trust-TV	1.00	4.00	1.90	.71	944
Perceived source trust-Radio	1.00	4.00	1.90	.71	944
Perceived source trust-Print	1.00	4.00	2.20	.78	944
Perceived usefulness-Internet	1.00	5.00	3.45	1.04	829
Perceived usefulness-Doctor	1.00	5.00	4.34	1.00	829
Perceived usefulness-Friends	1.00	5.00	3.14	1.03	829
Perceived usefulness-Family	1.00	5.00	3.63	.99	829
Perceived usefulness-TV	1.00	5.00	2.87	1.05	829
Perceived usefulness-Radio	1.00	5.00	2.86	1.06	829
Perceived usefulness-Print	1.00	5.00	3.13	1.09	829
Information seeking	1.00	5.00	2.12	.85	946

Concerning what information source participants used when they want to obtain contraception information, as first source information, 48% of the sample affirmed they used the Internet (N=456), and 27% affirmed they used doctors as first information source (N = 259). Table 3 shows included information on the first, second and third information source participants affirmed they used when they want to get contraction information.

Table 3 First, second and third source of information

Source	N	%
First source		
Internet	456	48
Doctors	259	27.3
Family	89	9.4
Friends	52	5.5
Television	3	.3
Radio	2	.2
Print media	22	2.3
None	63	
Second source		
Internet	316	33.3
Doctors	235	24.7
Family	98	10.3
Friends	152	16
Television	1	.1
Radio	2	.2
Print media	50	5.3
None	92	9.7
Third source		
Internet	211	22.2
Doctors	172	18.1
Family	122	12.8
Friends	180	18.9
Television	22	2.3
Radio	5	.5
Print media	74	7.8
None	160	16.8

Variables and Reliability

Measures

Perceived risk: The two items of perceived risk were scored together. Before doing that, a reliability test was performed and the Cronbach was of .793. The items were related to the likelihood of young women to have an unplanned pregnancy.

Direct experience: These items were dummy-coded since this was a categorical variable. The two items related to direct experience were also score together. Before doing that, a reliability test was performed and the Cronbach was .740. These items were related to present and past experience using contraceptives.

Efficacy belief: Only one item was kept for the analysis, this was the item that measured confidence in obtaining contraception advice/information if needed. The other two items were dropped because they did not measure information seeking, and the Cronbach of the three items together was .712.

Social disapproval barriers: The original subscale by Bersamin, Fisher, Marcell and Finan (2017) named “social disapproval” barriers made up have 4-items: disapproval by friends, disapproval by parents, embarrassment and concerns about privacy had a Cronbach of 0.78. For the present study, the social disapproval scale had a Cronbach of .862. The four items were kept for the data analysis and these consisted of disapproval by friends, disapproval by parents, disapproval by partner and fear and embarrassment to seek contraception information.

Psychosocial barriers: The sub-scale of Items from Nikiema, Haddad and Potvin (2012) of psychosocial barriers had a Cronbach’s alpha was estimated at 0.75, however for the current study the Cronbach’s alpha was low for three items at .394. When

dropping the items “Knowing where to go to get contraception information”, the Cronbach’s alpha was at .758 so this item was dropped.

Perceived trust in the source: one item that measured how much trust respondents had to the seven information sources listed.

Perceived utility of the source: one item that measured how useful respondents thought the seven information sources was.

Information seeking: one item to measure this variable, the question “How often have you sought contraceptive information during the last six months?” was used to measure past behavior.

As Cole and Preacher (2014) recommended one way to improve model parsimony was the one of parceling and averaging subsets of indicators. This was conducted to average the following constructs: direct experience (two items), social disapproval barriers (4 items), psychosocial barriers (3 items) and perceived risk (two items). Before averaging the score, a reliability test was conducted, and the results were appropriate.

Data analysis

All variables in the model were regressed by demographics (income, mother language and parents’ education) and the residuals were used for the analysis. Most studies on information seeking used demographics as control variables. These demographics are usually related to socioeconomic status. In the present study, the main socioeconomic status variables were used (income and parents’ education). The demographic variable of mother language was added because the sample was diverse in

terms of mother language (Spanish vs. Quechua). Marital status was not included because only a small part of the sample was married (1.4%). Religion was not included as demographic variable because the literature review did not suggest that religion plays a significant role on how individuals seek health information. Besides that, beliefs, social norms and cultural values were already part of the analysis as two background variables (social disapproval barriers and psychosocial barriers). It is also important to highlight that “Direct experience” which was a categorical variable was dummy-coded in SPSS before including it in the data analysis.

For the data analysis, path analysis with manifest variable was conducted. Mplus 8 was used for the analysis and 623 observations were included into the path analysis. Missing data was coded as -999 in SPSS and in the Mplus syntax this information was indicated so the software will not take into account the missing data when analyzing the results. Mplus is excellent at dealing with missing cases because it uses ML as estimator (Geiser, 2013). Thus, cases that had missing data were excluded from the path analysis.

Path with manifest variables is a type of multivariate regression analysis. This was selected as the most appropriate test because it simultaneously considers multiple independent variables. Additionally, path analysis is considered a powerful tool to measure correlation data (Hatcher, 2013). Also, this test was selected because the main goal of this research study is to measure associations of cross-sectional data and path analysis was an effective tool to achieve this goal.

Before conducting path analysis, correlations were obtained from the sample. Table 4 shows the correlation among variables in the study.

Table 4 Intercorrelations among variables

		1	2	3	4	5	6	7	8	9	10	11	12
1	Language												
2	Income	.36**											
3	Education	.37**	.60**										
4	Direct experience	.21**	.25**	.25**									
5	Efficacy beliefs	.26**	.27**	.23**	.28**								
6	Social disapproval barriers	-.27**	-.36**	-.30**	-.18**	-.27**							
7	Psychosocial barriers	-.03	-.07	-.06	-.11**	-.16**	.38**						
8	Risk	-.06	-.16**	-0.15**	0.11**	-0.06	.22**	0.12**					
9	Trust internet	.19**	.21**	0.19**	0.15**	0.23**	-0.18**	-.01	0				
10	Trust doctor	0.32**	0.42**	0.36**	0.23**	0.37**	-0.41**	-0.09*	-.11**	.29**			
11	Trust family	-0.03	-0.02	-0.07	-0.06	0.07*	-0.09*	-0.07	-0.06	0	0.15**		
12	Trust friends	0.14**	0.21**	0.18**	0.14**	0.14**	-0.13**	-0.03	0.02	0.27**	0.24**	0.30**	
13	Trust TV	0.06	0.04	0.02	-0.02	0.14**	-0.10*	-0.08*	0.04	0.22**	0.13**	0.18**	0.36**
14	Trust radio	0	0.02	-0.01	-0.03	0.16**	-0.08*	-0.06	0.03	0.23**	0.07*	0.16**	0.34**
15	Trust print	0.06	0.12**	0.13**	0.02	0.20**	-0.18**	-0.08*	-0.05	0.25**	0.22**	0.14**	0.27**
16	Use internet	0.17**	0.21**	0.16**	0.15**	0.19**	-0.25**	-0.04	0.01	0.51**	0.28**	0.01	0.24**
17	Use doctor	0.29**	0.36**	0.31**	0.18**	0.29**	-0.47**	-0.11**	-0.14**	0.19**	0.61**	0.10**	0.16**
18	Use family	0.09*	0.11**	0.11**	0.05	0.15**	-0.23**	-0.09*	-0.10**	0.06	0.25**	0.46**	0.20**
19	Use friend	0.12**	0.22**	0.18**	0.15**	0.16**	-0.20**	-0.10**	-0.05	0.24**	0.26**	0.17**	0.52**
20	Use TV	0.07	0.11**	0.05	0.14**	0.19**	-0.16**	-0.11**	0.01	0.21**	0.21**	0.13**	0.23**
21	Use radio	0.03	0.07	0.02	0.10*	0.14**	-0.15**	-0.11**	0	0.20**	0.15**	0.12**	0.19**
22	Use print	0.11**	0.15**	0.17**	0.11**	0.22**	-0.25**	-0.09*	-0.05	0.23**	0.26**	0.09**	0.19**
23	Info seeking	0.12**	0.11**	0.07	0.35**	0.18**	-.07	-.04	.15**	.14**	.12**	-.02	.10**

Continued

		13	14	15	16	17	18	19	20	21	22	23
1	Language											
2	Income											
3	Education											
4	Direct experience											
5	Efficacy beliefs											
6	Social disapproval barriers											
7	Psychosocial barriers											
8	Risk											
9	Trust internet											
10	Trust doctor											
11	Trust family											
12	Trust friends											
13	Trust TV											
14	Trust radio	.74**										
15	Trust print	.45**	.50**									
16	Use internet	.21**	.18**	.19**								
17	Use doctor	.08*	.06	.18**	.41**							
18	Use family	.12**	.14**	.13**	.26**	.41**						
19	Use friend	.22**	.21**	.20**	.42**	.33**	.50**					
20	Use TV	.44**	.41**	.30**	.40**	.26**	.39**	.56**				
21	Use radio	.38**	.42**	.31**	.41**	.24**	.39**	.53**	.86**			
22	Use print	.28**	.31**	.49**	.40**	.34**	.31**	.42**	.65**	.69**		
23	Info seeking	.08*	.06	.06	.12**	.06	0	.07	.12**	.09**	.08*	

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

Global Fit Indices

To analyze the model's fit, the indexes that were used to assess this were the Chi-Square Test of Model Fit, RMSEA (Root Mean Square Error Of Approximation), SRMR (Standardized Root Mean Square Residual) and the CFI (Comparative fit index).

Internet

Concerning the use of Internet, the model provided only a marginal fit to the data, $\chi^2 = 83.439$, $df = 5$, $p = .00$, $CFI = 0.718$, $RMSEA = .159$ (90% confidence interval = 0.130 0.189) and $SRMR = .092$. Modifications indices indicated that improvements on the model were possible if direct experience had a direct effect on information seeking $\chi^2 = 14.584$, $df = 4$, $p = .0056$, $CFI = .962$, $RMSEA = .065$ (90% confidence interval = 0.031 0.103) and $SRMR = .032$. If adding another direct path from efficacy beliefs on health information seeking, indices improved as well. The model results $\chi^2 = 6.275$, $df = 3$, $p = .0990$, $CFI = .988$, $RMSEA = .042$ (90% confidence interval = 0.000 0.088), and $SRMR = .024$. Another path was added to the model from perceived risk to health information seeking obtaining good results, $\chi^2 = 1.344$, $df = 2$, $p = .5107$, $CFI = 1.00$, $RMSEA = .000$ (90% confidence interval = 0.000 -0.071), and $SRMR = .010$.

The final model of associations among antecedent factors, information carrier characteristics and information seeking actions fit the data well. The antecedent variables of direct experience ($\beta = .29$, $p < .000$), efficacy beliefs ($\beta = .12$, $p = .002$) and risk ($\beta = .09$, $p = .026$) had a direct effect on information seeking, suggesting that information seeking is not mediated by the utility of the information source, but it is directly predicted

by individual's personal background factors such as direct experience, efficacy beliefs and perceived risk. Figure 5 includes the final model for Internet with estimated path coefficients.

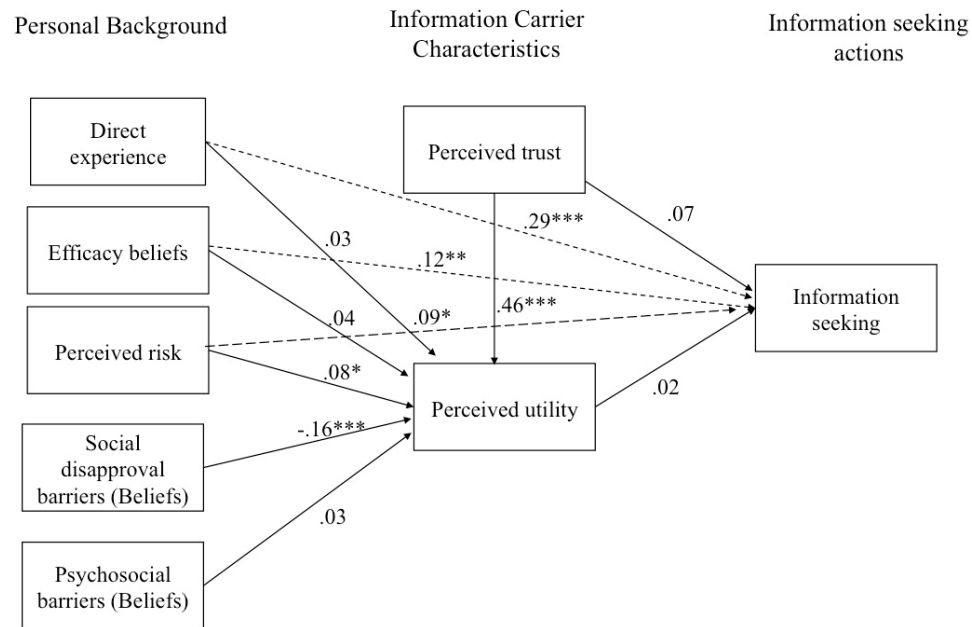


Figure 5. Final model for Internet with estimated path coefficients. Model 1 was the hypotheses model consisting of solid-line arrows in the Figure, Model 2 (dash lines) was identical to Model 1, except that Model 2 included a direct path from direct experience to health information seeking. And Model 3 (square dot) was identical to Model 2, except that Model 3 included an additional direct path from efficacy beliefs to health information seeking and Model 4 (long dash) was identical to Model 3, except that it included a direct path from risk to health information seeking. Pathways set to $*p < .05$ $**p < .01$ $***p < .001$

Table 5 indicates R^2 statistics for the two main endogenous variables under Model 1, Model 2, Model 3 and Model 4. Variables included in Model 1 accounted for 27% of the

variance in utility of doctors and 02% of the variance in health information seeking. The R^2 statistics for Models 2, 3 and 4 can be interpreted in the same way.

Table 5. Path analysis results for Internet as information source: R^2 Statistics for Two Endogenous Variables Under Models, 1, 2, 3 and 4

Model	R^2 Statistics	
	Utility of Internet	Health information seeking
Model 1	.27	.02
Model 2	.27	.12
Model 3	.27	.13
Model 4	.27	.14

Note. N=623.

Doctor

Concerning the use of doctors as information source, the model fit the data marginally, the results were $\chi^2 = 77.981$, $df = 5$, $p = .00$, CFI = .794, RMSEA = .153 (90% confidence interval = 0.124 -0.184) and SRMR =.089. Modification indices were conducted and a path from direct experience to information seeking was added improving the model $\chi^2 = 18.739$, $df=4$, $p=.00$, CFI=.958, RMSEA=.077 (90% confidence interval = 0.044 0.114) and SRMR=.037. Adding another direct path from efficacy beliefs to information seeking improved the model as well $\chi^2=8.552$, $df=3$, $p=.04$, CFI=.984,

RMSEA=.055 (90% confidence interval = 0.012-0.099) and SRMR= .028. Adding a direct path from perceived risk to information seeking improved the model as well $\chi^2=0.393$, $df=2$, $p=.82$, RMSEA=.000 (90% confidence interval = 0.000-0.047), CFI=1.00 and SRMR= .005. These results suggest that information seeking is not mediated by utility of doctors but it is directly influenced by personal background factors such as direct experience, efficacy beliefs and perceived risk.

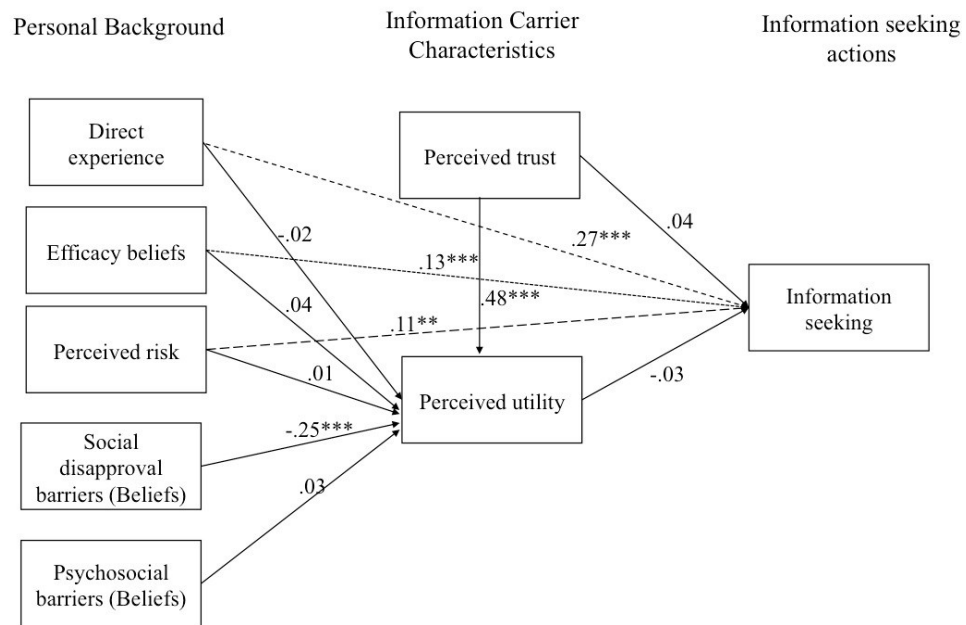


Figure 6. Final model for doctor with estimated path coefficients.
Pathways set to * $p < .05$ ** $p < .01$ *** $p < .001$

Table 6 indicated R^2 statistics for the two main endogenous variables under Model 1, Model 2, Model 3 and Model 4. Variables included in Model 1 accounted for 37% of the

variance in utility of doctors and 0% of the variance in health information seeking. The R^2 statistics for Models 2, 3 and 4 can be interpreted in the same way.

Table 6. Path analysis results for doctor as information source: R^2 Statistics for Two Endogenous Variables Under Models, 1, 2, 3 and 4

Model	R^2 Statistics	
	Utility of Doctor	Health information seeking
Model 1	.37	.00
Model 2	.37	.10
Model 3	.37	.11
Model 4	.37	.12

Note. N=623.

Friends

Concerning the use of friends as an information source, the model fit the data marginally, $\chi^2 = 86.513$, $df=5$, $p = .00$, $CFI = .682$, $RMSEA = .162$ (90% confidence interval = 0.133-0.193), $SRMR = 0.95$. Modification indices were conducted and a direct path from direct experience to information seeking was added. The results improved the model's fitness $\chi^2 = 15.986$, $df = 4$, $p < .000$, $RMSEA = .069$ (90% confidence interval = 0.036-0.106), $CFI = .953$, $SRMR = .034$. Adding a direct path from efficacy beliefs to

information seeking also improved the fitness $\chi^2=6.004$, $df=3$, $p=.11$, $CFI=.988$, $RMSEA=.040$ (90% confidence interval = 0.000-0.087), $SRMR=.024$. Additionally, adding a direct path from perceived risk to information seeking improved the model's fitness $\chi^2=0.766$, $df=2$, $p=.68$, $RMSEA=.000$ (90% confidence interval = 0.000-0.60), $CFI=1.00$, $SRMR=.008$. Figure 7 includes the final model for friends with estimated path coefficients.

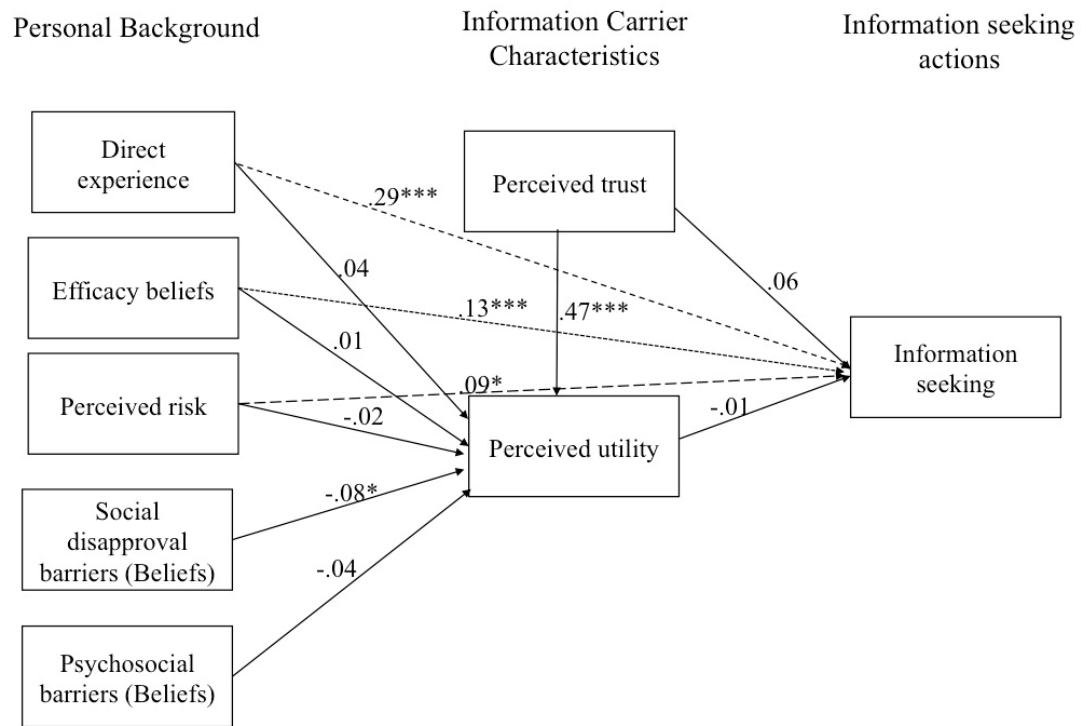


Figure 7. Final model for friends with estimated path coefficients.
Pathways set to * $p < .05$ ** $p < .01$ *** $p < .001$

Table 7 indicated R² statistics for the two main endogenous variables under Model 1, Model 2, Model 3 and Model 4. Variables included in Model 1 accounted for 25% of the variance in utility of friends and 01% of the variance in health information seeking. The R² statistics for Models 2, 3 and 4 can be interpreted in the same way.

Table 7. Path analysis results for friends as information source: R² Statistics for Two Endogenous Variables Under Models, 1, 2, 3 and 4

Model	R ² Statistics	
	Utility of friends	Health information seeking
Model 1	.25	.01
Model 2	.25	.12
Model 3	.25	.13
Model 4	.25	.14

Note. N=623.

Family

Concerning the use of family as information source, the model fit the data marginally $\chi^2=90.001$, $df=5$, $p=.00$, $RMSEA=.165$ (90% confidence interval = 0.136-0.196), $CFI = .656$, $SRMR = .098$. Adding a direct path from direct experience to

information seeking improved the fitness $\chi^2 = 16.940$, $df=4$, $p < .01$, RMSEA = .072 (90% confidence interval = 0.039-0.109), CFI= .948, SRMR = .035. Adding another direct path from efficacy beliefs to information seeking improved the fitness as well $\chi^2 = 6.421$, $df=3$, $p = .092$, RMSEA = .043 (90% confidence interval = 0.000-0.089), CFI = .986, SRMR = .024. Finally, adding another direct path from perceived risk to information seeking improved the fitness $\chi^2 = 0.772$, $df = 2$, $p = .68$, RMSEA= .000 (90% confidence interval = 0.000-0.060), CFI =1.00, SRMR = .008. Figure 8 includes the final model for family with estimated path coefficients.

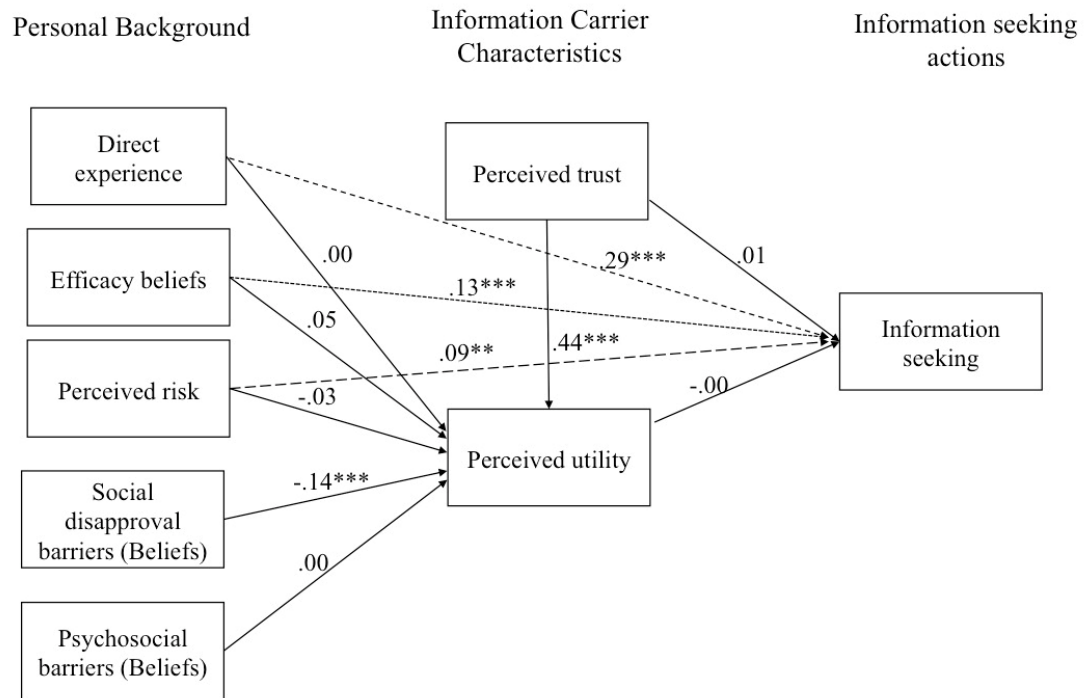


Figure 8. Final model for family with estimated path coefficients.
Pathways set to * $p < .05$ ** $p < .01$ *** $p < .001$

Table 8 indicated R² statistics for the two main endogenous variables under Model 1, Model 2, Model 3 and Model 4. Variables included in Model 1 accounted for 24% of the variance in utility of family and 0% of the variance in health information seeking. The R² statistics for Models 2, 3 and 4 can be interpreted in the same way.

Table 8. Path analysis results for family as information source: R² Statistics for Two Endogenous Variables Under Models, 1, 2, 3 and 4

Model	R ² Statistics	
	Utility of family	Health information seeking
Model 1	.24	.00
Model 2	.24	.11
Model 3	.24	.13
Model 4	.24	.13

Note. N=623.

Radio

Concerning the use of radio as information source, the model fit the data marginally $\chi^2 = 86.422$, $df = 5$, $p < .000$, RMSEA = .162 (90% confidence interval = 0.133-0.192), CFI = .660, SRMR = .094. Modification indices were conducted, and

adding one direct path from direct experience to information seeking improved the model $\chi^2 = 14.809$, $df = 4$, $p = .005$, RMSEA = .066 (90% confidence interval = 0.032-0.103), CFI = .955, SRMR = .033. Adding another direct path from efficacy beliefs to health information seeking improved the model $\chi^2 = 6.766$, $df = 3$, $p = .08$, RMSEA = .045 (90% confidence interval = 0.000-0.091), CFI = .984, SRMR = 0.026. Finally, further modification indices suggested to add one direct path from perceived risk to health information seeking and the model improved as well $\chi^2 = 1.187$, $df = 2$, $p = .55$, RMSEA = .000 (90% confidence interval 0.000-0.068), CFI = 1.00, SRMR = .010. Figure 9 includes the final model for radio with path coefficients.

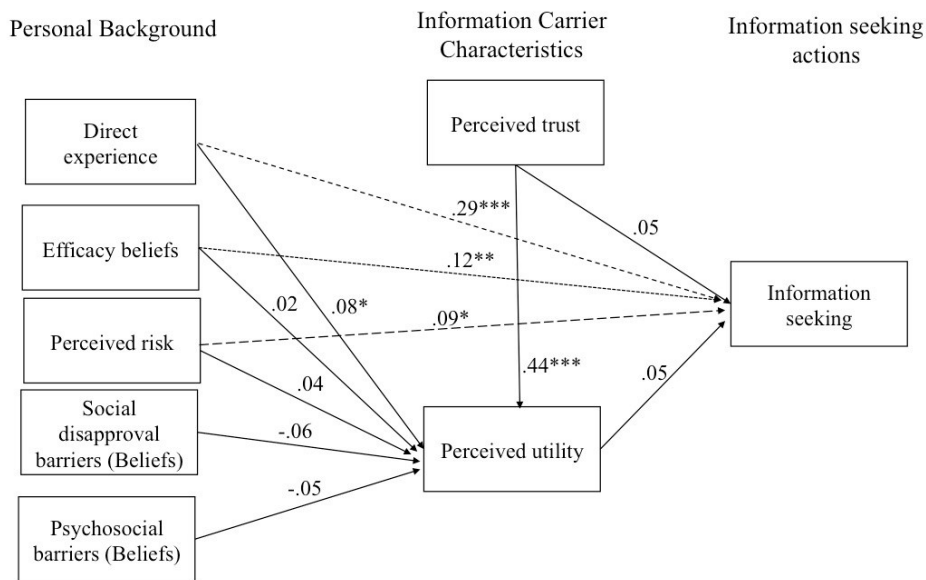


Figure 9. Final model for radio with estimated path coefficients.
Pathways set to * $p < .05$ ** $p < .01$ *** $p < .001$

Table 9 indicates R² statistics for the two main endogenous variables under Model 1, Model 2, Model 3 and Model 4. Variables included in Model 1 accounted for 22% of the variance in utility of radio and 02% of the variance in health information seeking. The R² statistics for Models 2, 3 and 4 can be interpreted in the same way.

Table 9. Path analysis results for radio as information source: R² Statistics for Two Endogenous Variables Under Models, 1, 2, 3 and 4

Model	R ² Statistics	
	Utility of radio	Health information seeking
Model 1	.22	.02
Model 2	.22	.12
Model 3	.22	.13
Model 4	.22	.14

Note. N=623.

Print media

Concerning the model for print as a source of information, the model provided only a marginal fit $\chi^2 = 87.222$, $df = 5$, $p < .000$, RMSEA = .162 (90% confidence interval = 0.134-0.193), CFI = .707, SRMR = .095. Modification indices indicated an improvement in the model's fit to the data direct experience had a direct effect on

information seeking $\chi^2 = 15.634$, $df=4$, $p = .004$, RMSEA = .068 (90% confidence interval = 0.035-0.106), CFI = .959, SRMR = .034. Further additions were included in the model, adding a direct path from efficacy beliefs to health information seeking which indicated improvements in fit $\chi^2 = 7.147$, $df= 3$, $p=.067$, RMSEA = .047 (90% confidence interval = 0.000-0.093), CFI = .985, SRMR = .026. Finally, adding a direct path from perceived risk to information seeking resulted in a significant improvement in the model's fit to the data $\chi^2 = 1.287$, $df= 2$, $p= .526$, RMSEA = .000 (90% confidence interval = 0.000-0.070), CFI = 1.00, SRMR = .010. Figure 9 includes the final model for print media with estimated path coefficients.

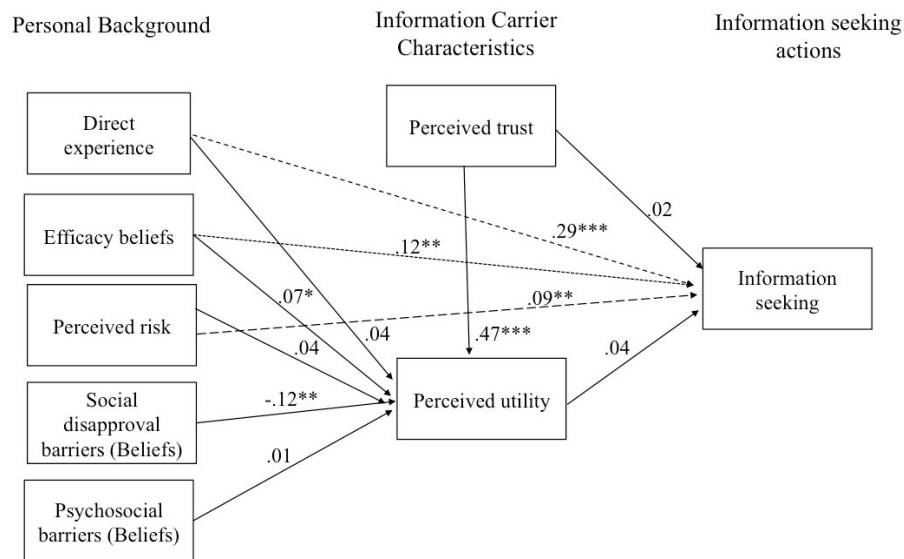


Figure 10. Final model for print media with estimated path coefficients.
Pathways set to * $p < .05$ ** $p < .01$ *** $p < .001$

Table 10 indicates R² statistics for the two main endogenous variables under Model 1, Model 2, Model 3 and Model 4. Variables included in Model 1 accounted for 28% of the variance in utility of print media and 01% of the variance in health information seeking. The R² statistics for Models 2, 3 and 4 can be interpreted in the same way.

Table 10. Path analysis results for print media as information source: R² Statistics for Two Endogenous Variables Under Models, 1, 2, 3 and 4

Model	R ² Statistics	
	Utility of print media	Health information seeking
Model 1	.28	.01
Model 2	.28	.12
Model 3	.28	.13
Model 4	.28	.14

Note. N=623.

Television

Concerning the model for television as a source of information, the model provided only a marginal fit $\chi^2 = 84.065$, $df = 5$, $p < .000$, RMSEA = .156 (90% confidence interval = 0.130-0.190), CFI = .682, SRMR = .092. Modifications indices

indicated improvements in the model's fit to the data if a direct path from direct experience to information seeking was added $\chi^2 = 14.228$, $df = 4$, $p = .007$, RMSEA = .064 (90% confidence interval 0.030-0.102), CFI = .959, SRMR = .032. Adding a direct path from efficacy beliefs to information seeking improved fit as well $\chi^2 = 6.506$, $df = 3$, $p = .089$, RMSEA = .043 (90% confidence interval = 0.000-0.090), CFI = .986, SRMR = .025.

The final model provided a good fit to the data if another direct path was added from perceived risk to health information seeking $\chi^2 = 1.154$, $df = 2$, $p = .562$, RMSEA = .000 (90% confidence interval = 0.000-0.068), CFI = 1.00, SRMR = .010. In Table 10, R^2 statistics for the two main endogenous variables under Model 1, Model 2, Model 3 and Model 4 are included. Variables included in Model 1 accounted for 24% of the variance in utility of television and 02% of the variance in health information seeking. The R^2 statistics for Models 2, 3 and 4 can be interpreted in the same way. Figure 10 includes the final model for television with estimated path coefficients.

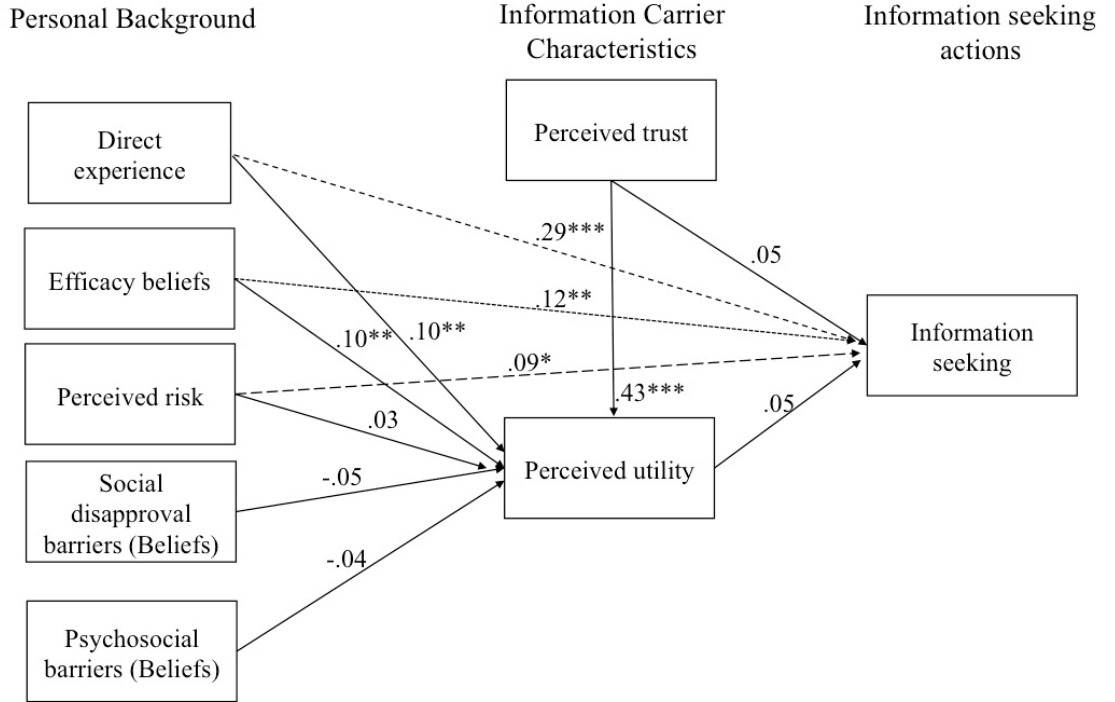


Figure 11. Final model for television with estimated path coefficients.
Pathways set to * $p < .05$ ** $p < .01$ *** $p < .001$

Table 11 indicates R^2 statistics for the two main endogenous variables under Model 1, Model 2, Model 3 and Model 4. Variables included in Model 1 accounted for 24% of the variance in utility of television and 02% of the variance in health information seeking.

The R^2 statistics for Models 2, 3 and 4 can be interpreted in the same way.

Table 11. Path analysis results for television as information source: R² Statistics for Two Endogenous Variables Under Models, 1, 2, 3 and 4

Model	R ² Statistics	
	Utility of TV	Health information seeking
Model 1	.24	.02
Model 2	.24	.12
Model 3	.24	.13
Model 4	.24	.14

Note. N=623.

Path coefficients in the final preferred model and hypothesis testing

The RQ1 aimed to determine to what is the association between antecedent factors (direct experience (H1), efficacy beliefs (H2), perceived risk (H3), social disapproval barrier beliefs (H4) and psychosocial barriers beliefs (H5)) and perceived utility of a specific information source. All of these variables were entered into model to test if they were significant predictors of perceived utility of each source (Internet, doctors, family, friends, radio, TV, print media). The following analysis section was divided by information source.

Internet

For the Internet model, the only significant association found was the one between social disapproval beliefs and perceived utility; and perceived risk and perceived utility. Perceived risk exerted a positive association on perceived utility of the Internet ($\beta = .08, p = .032$). Higher levels of social disapproval barriers beliefs predicted lower perceived utility of the Internet ($\beta = -.16, p < .000$). Thus hypothesis 1, 2 and 5 were rejected but hypotheses 3 and 4 were supported in the case of Internet as an information source for contraception. The additional paths that were added to improve the model fit were the ones from direct experience, efficacy beliefs and perceived risk toward information seeking. Direct experience was positively associated with information seeking ($\beta = .29, p < .000$) as well as efficacy beliefs ($\beta = .12, p = .002$) and perceived risk ($\beta = .08, p = .026$).

Doctors

For doctors, the only significant relationship was found between the variable social disapproval beliefs and perceived utility of doctors. Social disapproval beliefs had a negative association on perceived utility of doctors ($\beta = -.25, p < .000$). Thus hypotheses 1, 2, 3, and 5 were rejected and hypotheses 4 was supported.

Additional paths to the model indicated that direct experience ($\beta = .27, p < .000$), efficacy beliefs ($\beta = .13, p = .001$) and perceived risk ($\beta = .11, p = .004$) had a positive association on information seeking.

Family

For family, the only significant relationship was found between social disapproval beliefs and perceived utility of family as contraceptive information. Social disapproval

beliefs were negatively associated with perceived utility of family ($\beta = -.14, p < .000$).

Thus, hypotheses 1, 2, 3 and 5 were rejected and hypothesis 4 was supported. Additional paths indicated that direct experience ($\beta = .29, p < .000$), efficacy beliefs ($\beta = .13, p = .001$) and perceived risk ($\beta = .09, p = .017$) were positively associated with information seeking.

Friends

For friends, the only significant predictor was social disapproval beliefs. These beliefs were negatively associated ($\beta = -.08, p = .034$) with the perceived utility of friends as an information source for contraception. Thus, hypotheses 1, 2, 3 and 5 were not supported and hypothesis 4 was supported. Additional paths indicated that direct experience ($\beta = .29, p < .000$), efficacy beliefs ($\beta = .13, p = .001$) and perceived risk ($\beta = .09, p = .022$) were positively associated with information seeking.

Radio

For radio, the only significant predictor was direct experience. Direct experience was positively associated ($\beta = .08, p = .023$) with perceived utility of radio. Thus, hypothesis 1 was supported but hypotheses 2, 3, 4 and 5 were rejected. Additional paths indicated that direct experience ($\beta = .29, p < .000$), efficacy beliefs ($\beta = .12, p = .002$) and perceived risk ($\beta = .09, p = .018$) were positively associated with information seeking.

Print media

For print, the only significant predictors were efficacy beliefs and social disapproval beliefs. Efficacy beliefs were positively associated ($\beta = .07, p = .046$) with

perceived utility of print and social disapproval beliefs were negatively associated ($\beta = .12, p = .002$) with perceived utility of print media. Thus, hypotheses 1, 3 and 5 were rejected and hypotheses 2 and 4 were supported. Additional paths indicated that direct experience ($\beta = .29, p < .000$), efficacy beliefs ($\beta = .12, p = .002$) and perceived risk ($\beta = .09, p = .015$) were positively associated with information seeking.

Television

For television, the only significant predictors were direct experience and efficacy beliefs. Direct experience ($\beta = .10, p = .006$) was positively associated with perceived utility of television as well as efficacy beliefs ($\beta = .10, p = .007$). Thus hypotheses 1 and 2 were supported while hypotheses 3, 4 and 5 were rejected. Additional paths indicated that direct experience ($\beta = .29, p < .000$), efficacy beliefs ($\beta = .12, p = .003$) and perceived risk ($\beta = .09, p = .020$) were positively associated with information seeking.

Concerning RQ2, what is the association between trust and perceived utility (H6) and perceived trust and health information seeking (H7), and what is the association between perceived utility and health information seeking (H8) using a specific source, the findings are the following:

Internet

For Internet, trust in Internet ($\beta = .46, p < .000$) was positively associated with perceived utility of Internet; however, there was no significant association between perceived trust and information seeking and perceived utility and information seeking. Thus, hypotheses 6 was supported but hypotheses 7 and 8 were rejected.

Doctors

For doctors, the only significant relationship was the one between trust and utility. Trust in doctors was positively associated with utility of doctors ($\beta = .48, p < .000$) as an information source. Thus, hypotheses 6 was supported and hypotheses 7 and 8 were not supported.

Family

For family, trust on family was positively associated with perceived utility of family as an information source ($\beta = .44, p < .000$). Thus, hypotheses 6 was supported and hypotheses 7 and 8 were not supported.

Friends

For friends, trust on friends was positively associated with perceived utility of friends ($\beta = .47, p < .000$). Thus hypotheses 6 was supported and hypotheses 7 and 8 were not supported.

Radio

For radio, trust on radio was positively associated with perceived utility of radio ($\beta = .44, p < .000$). Thus hypotheses 6 was supported and hypotheses 7 and 8 were rejected.

Print

For print, trust on print was positively associated with perceived utility of print ($\beta = .47, p < .000$). Thus hypotheses 6 was supported and hypotheses 7 and 8 were not.

Television

For TV, trust on television was positively associated with perceived utility of television ($\beta = .43, p < .000$) . Thus, hypotheses 6 was supported and hypotheses 8 and 9 were not supported.

CHAPTER FIVE: DISCUSSION

This study explored the predictors and barriers that prevent young Peruvian women to seek contraceptive information. Using and extending the CMIS as framework, this study determined the associations between variables within the CMIS in the Peruvian context.

To the best of my knowledge, no previous research has been conducted on reproductive health information seeking behaviors of young Peruvian women, so comparisons between data results from this study and similar studies are limited. The next section includes a discussion of the main results of this study.

Findings offered mixed results. Just a few associations between personal background characteristics, specifically social disapproval barriers and perceived utility were found in the study. Data from Research Question 1 determined the association between antecedents' factors (direct experience, efficacy beliefs, perceived barriers and perceived risk) and perceived utility of each information source?

The CMIS framework suggests that direct experience, salience, and beliefs influence utility. The present study added perceived barriers (social disapproval barriers and psychosocial barriers) as an antecedent factor and predicted that these would be negatively associated with utility. The data for this research question showed mixed results.

Direct experience

Direct experience was not significantly associated with perceived utility of Internet, doctor, family, friends and print media. This is similar to the findings by Van Stee and Yang (2018) who found that direct experience was not a significant predictor for online cancer information seeking. In my study, direct experience was positively associated with perceived utility of television and radio; for the other information sources, the relationships were not significant. This corroborated somehow the CMIS since this framework was developed for traditional mass media (Johnson & Meischke, 1993). Moreover, young women are highly exposed to traditional media such as radio and television which are widely used in Peru (National Institute of Statistics and Informatics, 2018e); however, this exposure would be considered a more passive form of information seeking that could be defined as scanning health information (Kelly et al., 2010).

These young women, who had had direct experience using contraceptives might perceive that interpersonal sources such as family, friends and doctors would be judgmental with them, thus they perceived they are not useful sources of information. It is interesting to note that there is not an association between direct experiences and perceived utility of the Internet. This could be explained by the perception that Internet offers a massive amount of information, which could easily be perceived as not useful, especially if these young women don't have the health literacy skills to evaluate the credibility of every piece of information that comes from the Internet. It is also possible that young women perceive that more traditional forms of communication (television and radio) are more useful to get reproductive health information because they offer more

simple messages. Adams and colleagues (2017) who found that television and radio remained popular communication platforms among Senegalese youth to acquire health information. It is also important to recognize that access to television in Peru is at 82,1% in 2018 and access to radio at 75,1% (National Institute of Statistics and Informatics, 2018e), which are considered high.

Another interesting finding was that of the association between direct experience and perceived utility of doctors was negatively related which it is logical since young women who don't have experience using contraception would probably not perceive the utility of doctors as information source. The study by DeLorme, Huh and Reid (2011) found that direct experience (number of prescription drugs) was also a predictor of perceived usefulness of specialized medical material in the context of prescribed drug information seeking. Thus, having experience with an illness or health condition would likely be associated with a high perceived utility of physicians and medical doctors as corroborate in my study.

In other non-medical contexts, Rudi, He, Dworkin and Doty (2018) found that direct experience was also a predictor of perceived utility in the context of parents' perceptions of parenting information sources. The above studies corroborated that information-seeking might be highly determined by personal characteristics such as demographics, personal experience, educational levels and health literacy levels.

Perceived risk

Regarding salience (perceived risk in this study), the results showed that it was positively associated to utility of Internet but not for the other sources. This could be explained by the idea that young women who perceive higher risk of getting pregnant would perceive that the Internet is useful because of its confidentiality. Moreover, young women who perceive high risk might need information that is accessible right away. For the other sources, the association might not be significant because young women who perceive high risk might need a source that is not interpersonal (family, friends and doctors) and not a traditional and passive source of contraception information (television, radio and print). This is somewhat corroborated by the study by Hartoonian and colleagues (2014) who found that salience, perceived cancer risk in their study, was not associated to utility of the information source. Considering the Internet source, perceived risk seems to be associated with high levels of utility because of the type of information it can provide.

An interesting finding was that perceived risk was negatively related to the utility of family and friends as information sources. Even though, these associations were not significant, it is interesting to note the negative association. Similar results were found by Basnyat and colleagues (2018) in their study about online health information seeking in the context of India. In their study, perceived risk was negatively associated to utility of the Internet. In this study, one explanation would be similar that the more an individual feels a risk for an illness, the less they find friends and family are useful information sources. This could also be explained by the notion that young women who perceive high risk will consider family and friends to be very informal sources of contraception

information and they would prefer to use more expert sources of health information. In this study, this could also be related to the taboo and stigma surrounding sexual and reproductive health among females (Simms & Byers, 2013) especially contraception use by young unmarried women in a conservative and traditional society such as the Peruvian one.

Efficacy beliefs

Efficacy beliefs are not significant predictors in this study for most information sources, except for television and print. Similar results were found by Fetherstone (2019) who discovered that efficacy beliefs (source self-efficacy) were not a significant predictor of perceived source usefulness of Internet. This contradicts previous studies such as the one from Basnyat et al (2018) which found that efficacy beliefs in illness management was a significant predictor of perceived utility of the Internet. This could be explained because in the original model beliefs are contextualized differently. In the study by Basnyat et al. (2018), the authors measured how respondents believe they managed their illness. Moreover, Van Stee and Yang (2018) found that beliefs were a significant predictor of perceived utility of the Internet for cancer information.

In the present study, efficacy beliefs were not significant for doctor, family, friends and Internet. This could be explained in part by the notion that young women might perceive themselves as not having the appropriate capacities or communication skills to ask for information on contraceptives from interpersonal sources and might not have the confidence or required skills to obtain reproductive health information from the Internet. There have been studies that measured social skills on reproductive health

issues. For example, Hovell and colleagues (1998) measured the efficacy of a social skills training among Latino and Anglo youth on engaging on pregnancy risk behaviors and acquired immunodeficiency syndrome (AIDS). The authors found a significant difference in assertiveness to discuss condom negotiation and discussing a friend's risk of AIDS between the groups who received the training and the ones who did not. If young women received training in their information seeking and communication skills, they would probably feel more confident asking questions, sharing their concerns and discussing reproductive health information with their interpersonal sources, and in turn, they would perceive these sources as useful.

In the case of print and television, since these are considered more passive forms of communication, young women might perceive they are confident managing these two traditional communication media to acquire the information they need. There is no need to develop specific communication skills when using television for health information. Moreover, television is still a popular and widely used mass media channel in the developing world, including in Peru (INEI, 2018e). Thus, young women might feel confident in their ability to use television to obtain reproductive health information.

It is surprising to find the insignificant association between efficacy beliefs and perceived utility of radio. It is possible that young women do not have the confidence to find reproductive health information using radio since they do not have experience using this medium for reproductive health information.

Barriers

In this study social disapproval barriers and psychosocial barriers were added to the model. Mixed results were obtained. For example, social disapproval barriers were negatively associated with perceived utility of Internet, doctor, friends, family and print; however, they were not associated with perceived utility of television and radio. Psychosocial barriers were not associated with any information source in this study.

Since social disapproval barriers was a new addition to the model but are related to subjective norms (a variable) in the Theory of Planned Behavior (TPB) (Ajzen, 1991), studies regarding TPB affecting behavioral intentions could be cited to corroborate the results in this study. Subjective norms, the perceived social pressure to perform a behavior, were stronger predictors of behavioral intention to get a HPV vaccine among college young men (Catalano et al., 2017). Different studies have found that there is a strong association between perceived social pressure and behavioral intention, especially for behaviors that are considered taboo such as sexual health behaviors. For example, Cha and colleagues (2007) found that subjective norms were a high predictor for intention to abstain from sexual behaviors among female Korean college students. In a study conducted by Simms & Byers (2013) that compared men and female's perceived social norms regarding sexual initiation, the authors found that females experienced higher perceived social norms than males.

It is not surprising that perceptions of stigma (Adams et al., 2017), shame and fear (Delva et al., 2007) can hinder young people's access to sexual and reproductive health information and services. Hall and colleagues (2018) used a Sexual and Reproductive (SRH) Stigma Scale with females in Ghana and found that there was an association

between higher SRH stigma scores with young women. Older women did not experience higher perceptions of stigma regarding their reproductive and sexual health. This demonstrated that young women are usually the subject of stigma and judgmental views regarding their sexual and reproductive health.

To answer RQ1, the associations between the antecedent factors and perceived utility would differ based on the type of the information source. This means that for interpersonal sources and for Internet and print media, beliefs of social disapproval barriers would hinder the perceived utility of these specific sources (friends, doctors, family, Internet and print media). This would be due to perceptions of stigma, shame, and fear. These negative perceptions might be affecting the perceived utility of the information sources. On the other hand, social disapproval barriers are not associated with utility of traditional media, which could mean that these mass media are not affected by the perceptions of stigma young women might feel. Direct experience and efficacy beliefs are key variables that are positively associated with traditional media such as television and radio. This could mean that young women who have experience using contraceptives and who perceive they are skilled in seeking information also perceive the utility of mass media but not in other forms of information sources. Concerning perceived risk, this variable was also positively associated with perceived utility of the Internet; however, perceived risk was not associated with any other information source. This association means that young women who perceive higher risk of getting an unplanned pregnancy would find the Internet more useful than any other source. This association can be explained due to Internet's characteristics that are likely to be important to these

young women such as privacy and confidentiality. Furthermore, young women might not feel judged by others when seeking reproductive health information online.

Concerning Research Question 2 that aimed to demonstrate the association between trust and perceived utility, the association between trust and information seeking, and the association of utility and information seeking, the results are the following:

Perceived trust and perceived utility

Perceived trust was positively associated with perceived utility across all information sources. This is corroborated by the study by Rains (2007) in which the use of Internet as a source of health information was evaluated. Linear hierarchical regression showed that trust in Internet predicted perceived usefulness of information coming from the Internet. Paek, Choi and Hove (2017) also found significant associations between perceived trust and perceived utility of health television programs in South Korea. Sheng and Simpson (2018) also found a significant association between trust and utility of the Internet as a health information source among the elderly. It is important to mention that in the Johnson and Meischke study (1993), the path between information-carrier characteristics and utility was the strongest association found within the CMIS model.

These findings imply that perceived trust and perceived utility of the information source are highly correlated. Thus, individuals who trust one information source will perceive its utility as high. These findings are not surprising since it is logical to think that perceived trust and perceived utility will vary together as demonstrated in the present study as well.

Trust and information seeking

In this study, the association between trust (information carrier characteristics) and information seeking was not significant with any information source. This is similar to the findings by Johnson and colleagues (1995) who found in their study of information seeking within a state governmental agency that the association between information carrier characteristics and information seeking actions was not significant; however, most studies have found a positive association. For instance, Johnson and Meischke (1993) found that characteristics of the source, which measured the perceptions of the credibility and intentions of the source, were significant in relation to information-seeking actions. Also, Van Stee and Yang (2018) found that the association between characteristics of information carrier (quality of information) and online cancer information seeking was significant. Fetherston (2019) found that perceived source quality had a positive effect on students' career information seeking on the Internet. Hartoonian and colleagues (2014) also found a significant association between trust and health information seeking actions. Ruppel (2016) also found a positive association between source trust and health information scanning (attention), the association was even greater for entertainment-oriented sources and the Internet than for information-oriented sources which suggest that individuals tend to place more trust when using more peripheral cognitive processes (Rupel, 2016) . As seen in this section, most of the studies conducted have found a positive association between perceived trust and perceived utility.

In the present study, the association between perceived trust and information seeking was not found to be significant, probably because the measure of perceived trust

measured the trust of a specific source and the information seeking variable measured contraceptive information overall (using any information source). This could be explained by the notion that trust of a specific information sources for contraceptive information is not associated with health information seeking overall among young women. Despite the insignificant association between perceived trust and information seeking, it is important to note that perceived trust in the Internet and perceived trust in friends had the higher scores with information seeking. This might suggest that young women who tend to trust more the Internet would incline as well to seek more reproductive health information from different sources. Moreover, participants who trust their friends to share reproductive health information might be more likely to seek this type of information from difference sources. As seen in the results section, reproductive health information seeking would be likely to be more associated with personal background characteristics such as direct experience, efficacy beliefs, perceived risk and social disapproval beliefs than to the information carrier characteristics.

Utility and information seeking

In the case of utility and information seeking, the current study did not find a significant association between utility of any information source and information-seeking actions. Similar results were found by Hartoonian et al. (2014) and DeLorme, Huh and Reid (2011) who also did not find significant relationships between utility and information seeking. It is interesting to note that the associations between perceived utility of friends, family and doctors were negatively associated with information seeking. It is important to note that these associations are not significant; however, these

relationship are negative which means that the higher perceived utility of interpersonal sources that young women recognize, the less they will tend to seek contraception information. One possible explanation for this result is that respondents who perceive that their interpersonal sources are useful would not see the need to engage in reproductive health information seeking.

Contrary to the results from this study, several other studies have found a significant association between utility of the information source and information-seeking actions (Johnson & Meischke, 1993; Fetherston, 2019; Paek, Choi & Hove; Van Stee & Yang, 2018; Basnyat et al.; 2018; Bernadas & Jiang, 2019). This might imply that the relationship between utility and information-seeking actions is more multifaceted than the CMIS model originally proposed and will depend on the type of information source, source availability and access. For example, DeLorme, Huh and Reid (2011) found that for some information sources, such as professional interpersonal sources and specialized medical materials, the relationship between perceived usefulness and actual use of the information source was not significant, suggesting that access and source availability could be affecting information seeking. For advertising Internet sources and no advertising Internet sources, this relationship was significant. In this study, the lack of association between the two variables could imply that young women do not evaluate the utility of the information source element when deciding to seek contraception information. More personal characteristics are likely to be associated with information seeking as seen in the results chapter.

As seen in this section, both information carrier characteristics (perceived trust and perceived utility) were not associated with information seeking. Young women might not consider the information sources' characteristics as important elements that might determine if they seek contraception information or not; however, it is important to note a difference between the results when comparing interpersonal information sources (i.e. doctors, friends, family members) and mass media (television, radio and print). Perceived utility of the interpersonal sources are negatively associated with information seeking actions in this study; though nonsignificant associated, potentially implying that women who tend to find their interpersonal sources as useful will not see the need to seek contraception information. This could also mean that their interpersonal sources tend to advise young women about contraception information, and they don't see the need to seek more contraception information. This negative association could also be explained by contraceptive use being a taboo behavior in the Peruvian society, especially their use by unmarried young women. If young women's interpersonal sources are thought to be useful, they will not tend to seek more contraception information.

Another possible explanation would be the notion that contraceptive information seeking is not mediated by the sources characteristics, but it is more a direct behavior related to personal characteristics such as direct experience, beliefs and perceived risk as seen in other health information seeking studies (Chang, 2014).

The results of RQ2 demonstrated that the association between trust and perceived utility were highly associated across all information sources; however, the other associations were not positively significant. This could mean that within the CMIS, the

variance on information seeking is small because information-carrier characteristics are not positively associated with information seeking actions. It is possible that unintentional exposure to health information on mass media reduce the effects on information seeking as suggested by Johnson and Meischke (1993) As discussed in the previous section, similar results of the lack of association between perceived trust and information seeking were also found by Johnson and colleagues (1995); and lack of association between perceived utility and information seeking was also found by Hartoonian et al. (2014) and DeLorme, Huh and Reid (2011). In this study, the personal background characteristics of direct experience, efficacy beliefs and perceived risk were positively associated with information seeking. Thus, these three key variables could be considered essential predictors of reproductive health information seeking among young Peruvian women. Social disapproval barriers are not associated with information seeking directly; however, they are negatively associated with perceived utility of most information sources in this study, except radio and television which suggest that young women's social disapproval beliefs don't interact with the evaluation of these two mass media sources.

Additional Paths

Additional paths were included in the analysis to improve the model fit. Including direct paths from three relevant antecedent factors (direct experience, efficacy beliefs and perceived risk) that improved the model fit. This demonstrated that these three variables are positively associated with information seeking. This is relevant since other studies have also found that there might be a direct association between experience, efficacy

beliefs and perceived risk with health information seeking as explained in the section above.

The original CMIS doesn't propose an association between the personal background factors and health information seeking actions; however, studies that have used the CMIS as a theoretical framework have also found that there are direct effects from personal background factors toward information seeking actions (Paek, Choi & Hove, 2017; Hartoonian et al., 2014; Fetherston, 2019).

Oh, Choi and Kim (2018) found that personal background characteristics such as higher education levels and higher literacy predicted smartphone information seeking among Korean elderly. Moreover, Kim, Paige and Bhuyan (2017) used multivariate logistic regression to find predictors of mobile application and Internet use by cancer family caregivers and the general public. They found that cancer family caregivers were more likely to use the Internet for medical information seeking. In other words, having experience with a specific condition or disease (cancer) can lead to information seeking about the specific topic. Additionally, Chang (2014) in her study among college students' search for sexual health information found that perceived vulnerability and efficacy predicted information seeking. Perceived vulnerability and efficacy are considered personal background factors in the CMIS. Rivera, Cooper and Rodríguez-Díaz (2013) found that in their qualitative study among Puerto Rican young college students that being sexually active, which could be considered direct experience in the CMIS, was a motivator for sexual health information-seeking.

Johnson et al (1995) found in a study of a state governmental agency that adding direct paths from personal background characteristics to information seeking actions would improve the model fit. Thus, it is plausible to consider that direct experience; efficacy beliefs and perceived risk are associated with health information seeking.

The present study corroborated what other researchers have found regarding the predictors of information seeking. It is realistic to include direct paths from personal background characteristics to information seeking actions. It is noteworthy to recognize that none of the cited studies above, which used the CMIS as their theoretical framework, analyzed information seeking concerning contraception information.

Most used sources

A study conducted in the South American country of Argentina by Romero de Castilla, Lora Cerezo and Cañete Estrada (2001) found that adolescents perceived magazines, teachers and friends as useful sources of sexual health information. Their most used information sources were friends, magazines and books. Because the study was conducted around 20 years ago, in 2001, the Internet may not have been a primary information source available by that time. In more current studies, it has been found that young adults prefer using the Internet as a health information source (Ahmad & Khan, 2017; Fogel, Fajiram & Morgan, 2010), which corroborates the findings from the present study.

Overall model

Taken as a whole, the results from the present study indicated that the CMIS offers a partial understanding of the information seeking for the Peruvian context. Results

confirmed some of the hypothesized paths in the model for mass media such as television and radio. This demonstrated that the original model worked well with traditional media but not with interpersonal sources. When adding direct paths from the personal background variables toward information seeking, the model fit improved substantially.

In the present study, personal background characteristics such as direct experience, beliefs and risk perception are positively associated with information-seeking actions; however, the original CMIS does not include direct paths from personal background factors and information-seeking actions. This can be explained by the uniqueness of this specific population: young unmarried Peruvian women. Their personal characteristics such as the experience they had using contraception, the beliefs they hold and the barriers they perceive might be major elements in how they seek reproductive health information.

From the five personal background characteristics included in the model, direct experience was a significant variable in determining perceived utility of Internet, radio and television. Thus, women with higher direct experience using contraception were associated with higher perceptions of the usefulness of the Internet, radio and television. This could be explained by the notion that these three communication channels offered high levels of privacy and confidentiality so unmarried women who are sexually active might feel these communication channels are useful for them to seek contraceptive information. Efficacy beliefs, the confidence to get contraception information in this study, were also significant, but only when associated to perceived utility of print and television. This finding suggests that efficacy beliefs might be significant depending on

the information source tested within the model. Young women might feel confident to use mass media because these type of media require lower levels of health literacy than the Internet for example; efficacy beliefs were not associated to perceived utility of interpersonal sources which could suggest that young women don't perceive they have the capacities or skills to communicate and require reproductive health information from their families, doctors and friends.

One of the important findings from this study is the low level of variance in information seeking actions. According to Johnson and Meischke (1993) this could be explained by the traditional disparity between beliefs and behaviors. In their study, they found a low level of variance between the information carrier characteristics and information seeking actions. Likewise, the associations between the information carrier characteristics (perceived trust and perceived utility) and information seeking action were overall very small in the present study. This could be explained by different evaluations to specific information sources considering the purposes of the media (e.g., entertainment, information) (Johnson & Meischke, 1993).

Findings from this research suggest that information carrier characteristics might not play a large role when seeking contraception information from interpersonal sources and the Internet; however, when it comes to traditional media, direct experience and efficacy beliefs were associated with perceived utility of the traditional sources. It is interesting to note the association between perceived utility of television with direct experience and efficacy beliefs. This can lead suggest examining the powerful role of television in a developing country such as the Peruvian context. Considering television

and radio access in Peru is still high (82.1% and 75%), this could help young women perceive themselves as capable of using these mass media channels to access sexual and reproductive health information. The personal background characteristic of efficacy beliefs was also associated with perceived utility of print media, which can suggest that young women also feel capable of finding contraception information using print media. It is noteworthy to note that participants were college students, so it is plausible to think that they are highly educated and are comfortable with the use of print media.

Theoretical Implications

This cross-sectional study demonstrated that CMIS offers a partial understanding of reproductive health information seeking actions among young Peruvian women. To my knowledge, this was the first time the CMIS was applied to a Peruvian context and significant contributions can be applied regarding theories. This study showed that significant associations between personal background characteristics with health information seeking actions could be applied within the model, meaning that including additional direct paths from antecedent variables toward information seeking actions is a plausible option. This means that individuals might decide to look for specific health information considering their personal background characteristics such as previous personal experience, efficacy beliefs and perceived risk. These three variables played an important role in shaping young women's reproductive health information seeking.

The role of direct experience was essential in understanding why and how young Peruvian women seek reproductive health information. Adding an additional path from direct experience toward information seeking actions improved the model fit in this

study. This suggests that women who might have experience-using contraception might be more likely to seek contraception information. Moreover, direct experience was positively associated with perceived utility of two traditional media (television and radio). This can demonstrate that traditional media is still perceived as a popular and useful communication channel in the Peruvian society. Understanding how young women - who have direct experience using contraceptives - perceive the utility of television and radio can help tailor theories that can be more tuned to young women's information needs. The role of efficacy beliefs is also important to note. In this study, efficacy beliefs were significantly associated with perceived utility of using television and print media to access reproductive health information. This could mean that social scientists can highlight the importance of this variable in their future theories. Perceived risk was also a significant variable within the model. Highlighting the importance of perceived risk would also help guide how different information sources can tailor messages to young women. These three variables (direct experience, efficacy beliefs and perceived risk) demonstrated direct associations with information seeking actions.

Finally, the traditional context where young women seek reproductive health information deserves a special explanation. Studies about sexual and reproductive health information seeking have shown that young women face several barriers to access RHS and RHI. These barriers should be taken into account within the CMIS, especially when it comes to a sensitive topic such as reproductive health in traditional societies. Social scientists should consider these barriers when trying to explain or predict health information seeking.

This study examined a unique population with particular cultural beliefs, personal needs and information preferences, who live in an age of high information and technological improvements. Although we must recognize that Peru is a traditional society where access to contraception and contraceptive information is likely to be limited, especially because of the young age and unmarried civil status of the study respondents. This study demonstrates the vital role of personal characteristics in information seeking by this population. Individuals tend to seek information that is relevant to them considering their experience, evaluations of risk and their own beliefs. It is also important to note the significant association between perceived risk and Internet. Young women who experience risk perception might need contraceptive information in a timely manner. It is important to tailor the messages to their information needs. The negative association of social disapproval barriers (beliefs) to the model demonstrated that these beliefs can hinder the perceptions of perceived utility of most information sources (excluding radio and television). Theories should highlight the role of these personal characteristics in information seeking and the impact of social disapproval beliefs in perceived utility of relevant information sources.

Practical Implications

The results of this study can provide practical implications for health communication, health education and public health realms. In the health communication and health education fields, variables that are associated with information seeking in this study can be taken into account when crafting health communication and health education campaigns for this audience.

In the public health realm, key findings could be applied to address lack of access and inequity for high-risk populations such as young women from developing countries. Sexual and reproductive health education should be a mandatory course in public schools. Free access to contraception should be promoted national level. The Ministry of Health should implement a health communication campaign that targets young Peruvian women and inform them how to access accurate reproductive health information. Furthermore, the Ministry could launch a campaign that includes peer-to-peer advising sessions for young Peruvian women. One of the findings from this study was the one related to the negative association between social disapproval barriers and perceived utility of doctors. If young women have these perceptions, then it would be difficult that they reach out to doctors to seek reproductive health information. Having peers that are trained in providing accurate reproductive health information can help ease these barriers. The Ministry of Education should consider including in the school curriculum courses related to information seeking and health literacy. These courses are essential for students in the new century.

As shown in the final model, the three main variables that were significantly associated with information seeking were direct experience, efficacy beliefs and perceived risk across all information sources. When developing and crafting health communication messages, it might be essential to target these messages to young women who had have experience using contraceptives or those who have sought contraception information in the past. Considering efficacy beliefs and perceived risk as important variables to develop health education sessions for young women and to help them

develop their skills in information seeking using credible sources. Improving their efficacy beliefs can also help them to ease their risk perceptions about the impact of an unintended pregnancy for these young women. Reproductive health information seeking sessions can be provided in school settings. Moreover, communication campaigns can be organized at the local and national levels.

According to the results of this study, there is an association between some personal background characteristics with the perceived utility of mass media (television and radio). Thus, it would be important to consider launching health communication campaigns through traditional mass media. Focusing on direct experience, efficacy beliefs and perceived risk as key measures in the health information seeking process can help health communication specialists tailor their communication strategies to these specific sub-populations.

It is also essential to consider the social disapproval barriers variables, which were negatively associated to the perceived utility of almost all information sources except for radio and television. It would be important to target young women with messages in radio and television since these two media were not associated with social disapproval beliefs. Health agencies in Peru can use these two mass media channels to inform young women about the importance of reproductive health, and how to use contraception safely.

In this study, the perceived utility of all the interpersonal sources were negatively associated with social disapproval barriers, which suggest that these women do not find their interpersonal sources useful because they may be concerned that these sources

might judge them. One solution to this problem would be to frame the reproductive health information as a human right for women. This can help to promote the idea that seeking or providing sexual and reproductive health information is something beneficial to women's lives and to the country's development. Providing accurate information on reproductive health is paramount for societies and all members of the civil society should work hard to achieve this human right goal. It is very difficult to change social and cultural norms, but it is possible to start changing these ideas if the focus is placed on reproductive health as a human right. It would be also essential to give young women training in how to communicate better with their interpersonal sources and not to fear their family members and their doctors as being too judgmental. Communication training for health care providers can be beneficial as well.

Limitations and directions for future study

This study has numerous limitations. One of them is the nature of the study. Since this is an exploratory cross-sectional study, it is not possible to infer causal relationships among the variables and not make inferences that apply to the general population; however, it is still important to establish a few associations among some of the variables. This study can serve as a baseline for future related studies that track reproductive information seeking with this population over time.

Another limitation was the fact that a large number of participants (close to 300) did not complete the whole questionnaire, which might suggest that non-responders may have had certain characteristics related to health information seeking that were not well examined in this study, potentially limiting the generalizability of the study to young

Peruvian women. Similarly, young Peruvian women who were not attending college were not included in the study sample but are likely to be an important population to study for future studies concerning reproductive health information seeking among young Peruvian women.

Social desirability is another potential limitation. Participants who did finish the survey could have given answers that were considered socially appropriate and this could lead to misleading data. There might also be some methodological weaknesses concerning how the study measured constructs using only a single item in the scale to measure. For example, efficacy beliefs, perceived utility, perceived trust and information seeking were measured using one single item. It is recommended that future studies include more robust scale items when measuring key variables.

Future studies can focus on one information source when testing the CMIS. In the present study seven different information sources were tested and it was difficult to include more variables of the CMIS within the study. It is also advisable that future studies divide information sources by their goal-orientation (e.g., entertainment, information). This way, it would be clearer to establish associations between the information carrier characteristics and the information source as Ruppel (2016) suggested. It is also important that future studies measure perceived trust and perceived utility using more robust scale items. Having only one scale item could have limited the results of the study. Considering that the perceived utility of television and radio had higher associations, it is recommended that future studies focus on the role of traditional media in shaping information seeking and information scanning.

Future studies could also measure information seeking actions in other ways. In this study, information seeking was measured as past behavior, and that might be one reason that could explain its low variance. Future researchers can measure information seeking as an intention to seek health information in the future or present behavior.

In addition, future research might provide a more in-depth qualitative analysis of the reasons why young Peruvian women favor different sources over others in seeking reproductive health information. The quantitative nature of the current study did not allow probing for explanations from respondents about their personal health information seeking experiences and concerns. In-depth, open-ended personal interviews might be conducted with a sample of young Peruvian women to gather information that can add to our understanding about the dissemination of reproductive health information to young women in Peru. The dissemination of relevant reproductive health information to young women in Peru is clearly an important topic for future research and health promotion intervention.

APPENDIX A

Variables and operationalization

Variable	Conceptual Definition	Operationalization	Number of items per question	Scale
Direct experience	Experience with the health disease or health problem	Have you ever used any modern contraception to avoid pregnancy? Do you currently use any modern contraception to avoid pregnancy?	2 items	Yes/No Yes/No
Efficacy belief	Belief that one has the capacity to perform an action that will lead to a specific objective	Overall, how confident are you that you could get advice or information about reproductive health (contraception)?	1 item	Five-point Likert type scale 5= Very confident 1 = Not confident at all
Perceived risk	One's perception to get the disease	Compared to other women your age, how likely are you to have an unplanned pregnancy in the next year? How likely is that you will have an unplanned pregnancy in the next year?	2 items	Five-point Likert type scale 5= Much more likely 1= Much less likely

Social disapproval barriers	The factors that may prevent women from seeking information about contraception. These perceived barriers could be cultural, socioeconomic, psychosocial or related to the information source.	<p>I don't seek contraception information because my friends would disapprove it</p> <p>I don't seek contraception information because my parents would disapprove it</p> <p>I don't seek contraception information because my partner would disapprove it</p> <p>I don't seek contraception information because I feel embarrassment and fear to do it.</p>	4 items	Five-item Likert type scale (1=Strongly Agree, 5=Strongly Disagree).
Psychosocial barriers items:		<p>Not having female health worker to get contraception information is a problem</p> <p>Going alone to get contraception information is a problem</p> <p>Knowing where to go to get contraceptive information is not a problem</p>	3 items	A Five-item Likert type scale (1=Strongly Agree, 5=Strongly Disagree) will be used for this subscale.

Information carrier characteristic (Perceived source trust)	Perceived confidence on the information source	In general, how much would you trust information about contraception from each of the following sources (Internet, doctor, family, friends, television, radio, print)	1 item	Four-point Likert type scale (4=A lot, 1= not at all)
Perceived utility	Perceived usefulness of information provided by a source. If the information fulfills the needs of the information seeker	The information I found using (information carrier) was...	1 item	Five-point Likert type scale “(1=not at all useful, 5=very useful).
Frequency of information seeking	Frequency with which respondents sought reproductive health information	During the last six months, how often did you seek information about contraception from any source?	1 item	Five-point Likert type scale (1 = never, 5 very often)
DEMOGRAPHICS				
Family income	Income of all family members in the household	How much does your family make each month?	1	Five-point scale 1 and 2 = Low income 3 and 4 = Medium income 5 = High income
Highest educational level of parents	The years of educations obtained by each of their parents	What is the highest educational attainment of your mother?	2	Seven-scale 1-2 = Low education attainment

		What is the highest educational attainment of your father?		3-4 = Medium education attainment 5, 6 and 7 = High education attainment
First Language	Language will be conceptualized as the mother tongue or first language spoken at home	Indicate in which province of Peru you reside currently What was the first language you learned to speak at home?	1	Three options would be given in the language question: Quechua, Spanish, Other
Place of residence and place of birth	Place of residence and birth will be measured	Where do you currently live? Where were you born?	2	The 24 provinces of Peru will be shown for both questions
Marital and family status	Marital status and number of children	What is your marital status? How many children do you have?	2	Options will be: Divorced, Separated, Single, Living together, With partner, Widowed The options will be 0, 1-2, 3-4, more than 5 kids

APPENDIX B : INFORMED CONSENT (ENGLISH)

INFORMED CONSENT

TITLE: REPRODUCTIVE HEALTH INFORMATION-SEEKING MATTERS: DRIVERS AND PERCEIVED BARRIERS AMONG YOUNG PERUVIAN WOMEN

RESEARCH PROCEDURES

This research is being conducted to explore the reproductive health information-seeking behaviors among young women (18-26 years old) in Peru.

If agree, you will be asked to complete a 15-25 minute questionnaire. No personal information will be obtained beyond demographics, nor personal information linking individuals to the data collected.

RISKS

There might be some minimal risks from discussing personal experiences regarding reproductive and sexual health information, but none of these are out of the ordinary within normal social contexts. To ensure that your rights are respected, you may skip over questions you do not feel like answering or withdraw your participation at any time. There is always a slight chance that someone might feel upset after completing the interview. Please note that if you do feel upset or are in danger and would like to speak with someone, you can contact the International Women's House 24 hour crisis hotline at 770-413-5557.

BENEFITS

There are no direct benefits for participating in this study. Your contribution from participating in this research study may provide future assistance for young women regarding their reproductive health information-seeking behavior.

CONFIDENTIALITY

The data in this study will be confidential. No identifiable information (except gender, race, age, sexual orientation, income, education, language) will be kept by the researchers. Only the researchers will have access to the data collected. The data will be stored at the principal researcher's office at George Mason University, Fairfax Campus, and will be destroyed five years after the completion of the study. This research has been reviewed according to George Mason University procedures governing your participation in this research. While it is understood that no computer transmission can be perfectly secure, reasonable efforts will be made to protect the confidentiality of your transmission. The de-identified data could be used for future research without additional consent from participants.

PARTICIPATION

You must be 18 years of age or older in order to participate. Your participation is voluntary, and you may withdraw from the study at any time and for any reason.

CONTACT

This research is being conducted by H. Patricia Garcia. She can be reached at 1-202-779-5570 for questions or to report a research-related problem or via emails [hgarcia5@ gmu.edu]. My research adviser's name is Dr. Gary Kreps. He can be contacted at gkreps@gmu.edu or 703-993-1094 if you have any questions about the project. You may contact the George Mason University Institutional Review Board office at 703-993-4121 if you have questions or comments regarding your rights as a participant in the research. This research has been reviewed according to George Mason University procedures governing your participation in this research.

- ☐ Yes, I am 18 years of age or older
- ☐ No, I am not 18 years of age or older

APPENDIX B : INFORMED CONSENT (SPANISH)

CONSENTIMIENTO INFORMADO

TÍTULO: La búsqueda de información en salud reproductiva importa: Predictores y barreras percibidas entre las mujeres jóvenes peruanas

PROCEDIMIENTO DE INVESTIGACIÓN

Esta investigación se está llevando a cabo para explorar los comportamientos de búsqueda de información en salud reproductiva de las mujeres jóvenes peruanas de 18 a 26 años de edad.

Si usted está de acuerdo, se le pedirá completar un cuestionario de 15 a 25 minutos. Ninguna información personal más allá de demografía, o información personal que vinculen a las entrevistadas con los datos será recogida.

RIESGOS

Podrían haber riesgos mínimos al compartir información sobre experiencias personales sobre salud reproductiva y sexual, pero ninguna de estas están fuera de lo ordinario dentro de las contextos sociales normales.

Para asegurar que sus derechos son respetados, usted puede saltarse algunas preguntas si no siente que quiere responder, o puede retirarse de la encuesta en cualquier momento. Siempre hay una ligera posibilidad que alguien se sienta molesto después de completar la entrevista. Por favor tenga en cuenta que si usted se siente molesto o en peligro y le gustaría hablar con alguien, puede contactar a la línea 100 disponible las 24 horas, del Ministerio de la Mujer y Poblaciones Vulnerables del Perú.

BENEFICIOS

No hay beneficios directos para usted como participante en este estudio. Su contribución al participar en esta investigación podrá ser de ayuda para entender los comportamientos de búsqueda de información en salud reproductiva de las mujeres.

CONFIDENCIALIDAD

Los datos de este estudio son confidenciales. Ninguna información identificable (excepto el género, raza/etnicidad, edad, salario, educación e idioma nativo) serán guardados por los investigadores. Solo los investigadores tendrán acceso a los datos recogidos. Los datos serán almacenados en la oficina del investigador principal en George Mason University, Fairfax, USA, y serán destruidos después de cinco años al completar la investigación. Esta investigación ha sido revisada de acuerdo a los procedimientos de George Mason University. Si bien es sabido que ninguna transmisión por computadora es completamente segura, esfuerzos razonables se harán para proteger la confidencialidad de la transmisión. Los datos de de-identificación podrían ser usados para futuras investigaciones sin consentimiento adicional de los participantes.

PARTICIPACIÓN

Usted debe tener 18 años de edad o más para participar en este estudio. Su participación es voluntaria, y usted puede retirarse del estudio en cualquier momento y por cualquier razón.

CONTACTO

Esta investigación está siendo conducida por H. Patricia García. Ella puede ser contactada al 1-202-779-5570, o por correo electrónico (hgarcia5@gmu.edu). El supervisor de la investigación es el doctor Gary Kreps. Él puede ser contactado en gkreps@gmu.edu o al 703-993-1094. Si usted tiene alguna pregunta acerca del proyecto. Usted puede contactarse con la Oficina de Revisión de Universidad George Mason al 703-993-4121 si usted tiene preguntas o comentarios acerca de sus derechos como participante en la investigación. Esta investigación ha sido revisada de acuerdo a los procedimientos de gestión de la Universidad George Mason.

- ☐ Sí, yo tengo 18 años de edad o más
- ☐ No, yo no tengo 18 años de edad o más

APPENDIX C: SURVEY (ENGLISH)

I have read the information about the research and I agree to participate in this study.

- ☐ I agree
- ☐ I disagree

Overall, how confident are you that you could get advice or information about modern contraception. Modern contraception is considered condoms, pills, Depo-Provera shots, intrauterine device (IUD).

- ☐ Not at all confident
 - ☐ Only slightly confident
 - ☐ Somewhat confident
 - ☐ Moderately confident
 - ☐ Very confident
-

Overall, how confident are you about your ability to take good care of your reproductive health?

- ☐ Not at all confident
 - ☐ Only slightly confident
 - ☐ Somewhat confident
 - ☐ Moderately confident
 - ☐ Very confident
-

Page Break

Overall, how confident are you about preventing unwanted pregnancy?

- ☐ Not at all confident
- ☐ Only slightly confident
- ☐ Somewhat confident
- ☐ Moderately confident
- ☐ Very confident

Compared to other women your age, how likely are you get an unwanted pregnancy in next year?

- ☐ Much less likely
- ☐ Less likely
- ☐ The same
- ☐ More likely
- ☐ Much more likely

How likely is that you will have an unplanned pregnancy in the next year?

- ☐ Much less likely
- ☐ Less likely
- ☐ The same
- ☐ More likely
- ☐ Much more likely

Please answer if you agree or disagree with the following statement:

My whole life would change if I get pregnant

- ☐ Strongly disagree
- ☐ Somewhat disagree
- ☐ Neither agree nor disagree
- ☐ Somewhat agree
- ☐ Strongly agree

Please answer if you agree or disagree with the following statement:
It would be impossible to handle the daily routines in my life if I get pregnant

- ☐ Strongly disagree
- ☐ Somewhat disagree
- ☐ Neither agree nor disagree
- ☐ Somewhat agree
- ☐ Strongly agree

In general, how much would you trust information about contraception from each of the following sources?

	Not at all	Somewhat	Moderate	A lot
Internet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Health care providers such as physicians, ObGyn, nurses, pharmacists and others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Family	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Friends	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
TV	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Radio	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Newspapers and other printed media such as books, magazines, mail, pamphlets, or posters	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Were you concerned about the quality of information you obtained from the specific source during the last time you sought contraception information?

	Not at all concerned	Only slightly concerned	Somewhat concerned	Moderately concerned	Very concerned
Internet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Health care providers such as physicians, ObGyn, nurses, pharmacists and others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Family	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Friends	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
TV	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Radio	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Newspapers and other printed media such as books, magazines, mail, pamphlets, or posters	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please answer if you think the information you might find from each source could be hard to understand for you

	Strongly agree	Somewhat agree	Neither agree or disagree	Somewhat disagree	Strongly disagree
Internet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Health care providers such as physicians, ObGyn, nurses, pharmacists and others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Family	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Friends	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
TV	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Radio	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Newspapers and other printed media such as books, magazines, mail, pamphlets, or posters	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please answer how useful the information you found using each specific source was

	Not at all useful	Only slightly useful	Somewhat useful	Moderate useful	Very useful
Internet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Health care providers such as physicians, ObGyn, nurses, pharmacists and others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Family	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Friends	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
TV	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Radio	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Newspapers and other printed media such as books, magazines, mail, pamphlets, or posters	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please answer if the information you would get from each specific source would be easy to get

	Not at all easy to get	Only slightly easy to get	Somewhat easy to get	Moderate easy to get	Very easy to get
Internet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Health care providers such as physicians, ObGyn, nurses, pharmacists and other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Family	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Friends	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
TV	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Radio	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Newspapers and other printed media such as books, magazines, mail, pamphlets, or posters	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Think about the last time you look for contraception information, where did you go first?

Internet

- ☐ Health care providers such as physicians, ObGyn, nurses, pharmacists and other

- ☐ Family
- ☐ Friends
- ☐ TV
- ☐ Radio
- ☐ Printed media (such as newspapers, books, magazines, mail, pamphlets, or posters)
- ☐ None

Think about the last time you look for contraception information, where did you go second?

- ☐ Internet
- ☐ Health care providers such as physicians, ObGyn, nurses, pharmacists and other
- ☐ Family
- ☐ Friends
- ☐ TV
- ☐ Radio
- ☐ Printed media (such as newspapers, books, magazines, mail, pamphlets, or posters)

Think about the last time you look for contraception information, where did you go third?

- ☐ Internet
- ☐ Health care providers such as physicians, ObGyn, nurses, pharmacists and other
- ☐ Family
- ☐ Friends
- ☐ TV
- ☐ Radio

☐ Printed media (such as newspapers, books, magazines, mail, pamphlets, or posters)

☐ None

How often did you seek information about contraception from any source during the past six months?

☐ Never

☐ Sometimes

☐ About half the time

☐ Most of the time

☐ Very often

Please indicate if you agree or disagree with the following statements

	Strongly agree	Somewhat agree	Neither agree or disagree	Somewhat disagree	Strongly disagree
I don't seek contraception information because my friends would disapprove it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I don't seek contraception information because my parents would disapprove it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I don't seek contraception information because I feel embarrassed and fear to do it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I don't seek contraception information because my partner would disapprove it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please indicate if you agree or disagree with the following statements

	Strongly agree	Somewhat agree	Neither agree or disagree	Somewhat disagree	Strongly disagree
Not having a female health provider to give contraception information is a problem	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Going alone to get contraception information is a problem	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Knowing where to go to get contraception information is not a problem	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please indicate if you agree or disagree with the following statements:

	Strongly agree	Somewhat agree	Neither agree or disagree	Somewhat disagree	Strongly disagree
Transportation is not a problem when I want to seek contraception information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Money is not a problem when I want to seek contraception information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Distance is not a problem when I want to seek contraception information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Having no health insurance is a problem when I want to seek contraception information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Indicate what are the main barriers that you could face when seeking contraception information considering the following sources.

	There is no confidentiality or privacy	They can judge me or be disrespectful	They don't accept my sexual behavior	The hours are not convenient	I don't trust this information source	It is difficult to understand	It's diff to find what I want	No barrier
Internet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>
Health care provider such as physician, ObGyn, nurses, pharmacists and others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>
Family	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>
Friends	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>
TV	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>
Radio	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>
Newspapers and other printed media such as books, etc.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>

What other barriers can prevent you from seeking information about contraception?

Have you ever used any modern contraception to avoid pregnancy? Modern contraception methods are considered condoms, pills, and shots, among others

☐ Yes

☐ No

Do you currently use any modern contraception to avoid pregnancy? Modern contraception methods are considered condoms, pills, and shots, among others

☐ Yes

☐ No

What is your family income per month?

☐ Less than 1,000 soles

☐ 1,000-1,500 soles

☐ 1,501-2000 soles

☐ 2,001-2,500 soles

☐ More than 2,501

Your father's highest educational attainment

- ☐ Elementary uncompleted
- ☐ Elementary completed
- ☐ High school uncompleted
- ☐ High school completed
- ☐ Some college
- ☐ College completed
- ☐ Graduate
- ☐ Associate degree

Your mother's highest educational attainment

- ☐ Elementary uncompleted
- ☐ Elementary completed
- ☐ High school uncompleted
- ☐ High school completed
- ☐ Some college
- ☐ College completed
- ☐ Graduate
- ☐ Associate degree

What is your mother tongue/native language?

- ☐ Spanish
- ☐ Quechua
- ☐ Other

What is your age?

- ☐ 18 years old
- ☐ 19 years old
- ☐ 20 years old
- ☐ 21 years old
- ☐ 22 years old
- ☐ 23 years old
- ☐ 24 years old
- ☐ 25 years old
- ☐ 26 years old
- ☐ More than 26 years old

Where do you currently live?

- ☐ Amazonas
- ☐ Ancash
- ☐ Apurímac
- ☐ Arequipa
- ☐ Ayacucho
- ☐ Cajamarca
- ☐ Callao
- ☐ Cusco
- ☐ Huancavelica
- ☐ Huánuco
- ☐ Ica
- ☐ Junín
- ☐ La Libertad
- ☐ Lambayeque
- ☐ Lima
- ☐ Loreto
- ☐ Madre de Dios
- ☐ Moquegua
- ☐ Pasco
- ☐ Piura
- ☐ Puno
- ☐ San Martín
- ☐ Tacna
- ☐ Tumbes

○ Ucayali

Where were you born?

Amazonas

- ☐ Ancash
- ☐ Apurímac
- ☐ Arequipa
- ☐ Ayacucho
- ☐ Cajamarca
- ☐ Callao
- ☐ Cusco
- ☐ Huancavelica
- ☐ Huánuco
- ☐ Ica
- ☐ Junín
- ☐ La Libertad
- ☐ Lambayeque
- ☐ Lima
- ☐ Loreto
- ☐ Madre de Dios
- ☐ Moquegua
- ☐ Pasco
- ☐ Piura
- ☐ Puno
- ☐ San Martín
- ☐ Tacna
- ☐ Tumbes
- ☐ Ucayali

What is your marital status?

- ☐ Divorced
- ☐ Separated
- ☐ Single (without partner)
- ☐ Dating
- ☐ Living together
- ☐ Widowed

How many children do you have?

- ☐ 0
 - ☐ 1-2
 - ☐ 3-4
 - ☐ More than 5
-

Do you practice any religion?

- ☐ Yes
 - ☐ No
-

Skip To: End of Survey If Practice any religion? = No

What religion do you practice?

- ☐ Catholic
- ☐ Other Christian religion
- ☐ Other

How often do you attend church, temple or mosque?

- ☐ 0-1 time per month
 - ☐ 2-4 times per month
 - ☐ 5-7 times per month
 - ☐ 7-9 times per month
 - ☐ More than 9 times per month
-

APPENDIX C: SURVEY (SPANISH)

He leído la información sobre la investigación y estoy dispuesta a participar

- ☐ Sí, estoy de acuerdo
- ☐ No estoy de acuerdo

¿Qué tan segura está de que puede obtener información sobre anticonceptivos modernos si la necesita? Anticoncepción moderna son considerados los condones, pastillas, inyecciones, la pastilla del día siguiente, el DIU, entre otros

- ☐ Nada segura
- ☐ Solo un poco segura
- ☐ Algo segura
- ☐ Moderadamente segura
- ☐ Muy segura

¿Qué tan segura está de que puede cuidar bien de su salud reproductiva?

- ☐ Nada segura
- ☐ Solo un poco segura
- ☐ Algo segura
- ☐ Moderadamente segura
- ☐ Muy segura

En general, ¿qué tan segura está de que pueda prevenir un embarazo no deseado?

- ☐ Nada segura
- ☐ Solo un poco segura
- ☐ Algo segura
- ☐ Moderadamente segura
- ☐ Muy segura

Comparada con otras mujeres de su edad, ¿qué tan probable es que pueda tener un embarazo no deseado el próximo año?

- ☐ Mucho menos probable
- ☐ Menos probable
- ☐ La misma probabilidad
- ☐ Más probable
- ☐ Mucho más probable

¿Qué tan probable es que pueda tener un embarazo no deseado el próximo año?

- ☐ Mucho menos probable
- ☐ Menos probable
- ☐ La misma probabilidad
- ☐ Más probable
- ☐ Mucho más probable

Por favor, responda a la siguientes afirmaciones:

Toda mi vida cambiaría si salgo embarazada

- ☐ Fuertemente en desacuerdo
- ☐ Algo en desacuerdo
- ☐ Ni en desacuerdo ni de acuerdo
- ☐ Algo de acuerdo
- ☐ Fuertemente de acuerdo

Por favor, responda a la siguientes afirmaciones:

Sería imposible manejar mis rutinas diarias si salgo embarazada

- ☐ Fuertemente en desacuerdo
- ☐ Algo en desacuerdo
- ☐ Ni en desacuerdo ni de acuerdo
- ☐ Algo de acuerdo
- ☐ Fuertemente de acuerdo

En general, ¿qué tanto siente que puede confiar en la información que puede recibir en anticoncepción de las siguientes fuentes?

	No confío nada	Confío algo	Confío moderadamente	Confío mucho
Internet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Personal de salud como médicos, gineobstetras, enfermeras, farmacéticos, entro otro personal de salud	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Familia	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Amigos	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Televisión	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Radio	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Medios impresos como periódicos, libros, revistas, correo postal, panfletos, o posters	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

¿Qué tanto le preocupa la calidad de la información sobre anticoncepción que puede obtener de las siguientes fuentes?

	Nada preocupad a	Un poco preocupad a	Algo preocupad a	Moderadament e preocupada	Muy preocupad a
Internet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Personal de salud como médicos, gineobstetras , enfermeras, farmacéticos, entro otro personal de salud	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Familia	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Amigos	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Televisión	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Radio	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Medios impresos como periódicos, libros, revistas, correo postal, panfletos, posters	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

10. Por favor, responda si la información que puede encontrar usando las siguientes fuentes sería difícil de entender para usted

	Fuertemente de acuerdo	Un poco de acuerdo	Ni de acuerdo ni en desacuerdo	Un poco en desacuerdo	Fuertemente en desacuerdo
Internet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Personal de salud como médicos, gineobstetras, enfermeras, farmacéticos, entro otro personal de salud	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Familia	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Amigos	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Televisión	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Radio	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Medios impresos como periódicos, libros, revistas, correo postal, panfletos, posters	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Por favor, responda que tan útiles han sido las fuentes de información que ha utilizado

	Nada útil	Solo un poco útil	Algo útil	Moderadamente útil	Muy útil
Internet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Personal de salud como médicos, gineobstetras, enfermeras, farmacéuticos, entre otro personal de salud	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Familia	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Amigos	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Televisión	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Radio	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Medios impresos como periódicos, libros, revistas, correo postal, panfletos, posters	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Por favor, responda qué tan fácil puede encontrar la información que necesita sobre anticoncepción usando las siguientes fuentes de información

	Nada fácil de encontrar	Solo un poco fácil de encontrar	Algo fácil de encontrar	Moderadamente fácil de encontrar	Muy fácil de encontrar
Internet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Personal de salud como médicos, gineobstetras, enfermeras, farmacéuticos, entro otro personal de salud	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Familia	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Amigos	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Televisión	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Radio	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Medios impresos como periódicos, libros, revistas, correo postal, panfletos, posters	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Piense en la última vez que buscó información sobre anticonceptivos. Indique a dónde acudió en primer lugar.

- ☐ Internet
- ☐ Personal de salud como médicos, gineco-obstetras, farmacéuticos, entro otro personal de salud
- ☐ Familia
- ☐ Amigos
- ☐ Televisión
- ☐ Radio
- ☐ Medios impresos como periódicos, libros, revistas, correo postal, panfletos o posters
- ☐ Ninguno

Piense en la última vez que buscó información sobre anticonceptivos. Indique a dónde acudió en en segundo lugar.

- ☐ Internet
- ☐ Personal de salud como médicos, gineco-obstetras, farmacéuticos, entro otro personal de salud
- ☐ Familia
- ☐ Amigos
- ☐ Televisión
- ☐ Radio
- ☐ Medios impresos como periódicos, libros, revistas, correo postal, panfletos o posters
- ☐ Ninguno

Piense en la última vez que buscó información sobre anticonceptivos. Indique a dónde acudió en tercer lugar

- ☐ Internet
- ☐ Personal de salud como médicos, gineco-obstetras, farmacéuticos, entro otro personal de salud
- ☐ Familia
- ☐ Amigos
- ☐ Televisión
- ☐ Radio
- ☐ Medios impresos como periódicos, libros, revistas, correo postal, panfletos o posters
- ☐ Ninguno

¿Qué tan seguido ha buscado información sobre anticoncepción de cualquier fuente de información durante los últimos seis meses?

- ☐ Nunca
- ☐ A veces
- ☐ La mitad del tiempo
- ☐ La mayor parte del tiempo
- ☐ Muy seguido

Por favor, responda las siguientes afirmaciones

	Fuertemente de acuerdo	Un poco de acuerdo	Ni de acuerdo ni en desacuerdo	Un poco en desacuerdo	Fuertemente en desacuerdo
Yo no busco información sobre anticoncepción porque mis amigos lo desaprobarían	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Yo no busco información sobre anticoncepción porque mis padres lo desaprobarían	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Yo no busco información sobre anticoncepción porque me da vergüenza y miedo	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Yo no busco información sobre anticoncepción porque mi pareja lo desaprobaría	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Por favor, indique si está de acuerdo o en desacuerdo con las siguientes oraciones
 Por favor, responda a las siguientes oraciones

	Fuertemente de acuerdo	Algo de acuerdo	Ni de acuerdo ni en desacuerdo	Algo en desacuerdo	Fuertemente en desacuerdo
No tener un personal de salud del sexo femenino que me dé la información sobre anticoncepción no es un problema para mí	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ir sola a buscar información sobre anticoncepción no es un problema para mí	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Saber a donde ir para obtener información sobre anticoncepción no es un problema para mí	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Por favor, indicar si está de acuerdo o en desacuerdo con las siguientes afirmaciones

	Fuertemente de acuerdo	Algo de acuerdo	Ni de acuerdo ni en desacuerdo	Algo en desacuerdo	Fuertemente en desacuerdo
El transporte es un problema para mí cuando quiero buscar información sobre anticoncepción	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
El dinero es un problema para mí cuando quiero buscar información sobre anticoncepción	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Las distancias son un problema para mí cuando quiero buscar información sobre anticoncepción	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
No tener seguro de salud es un problema para mí cuando quiero buscar información sobre anticoncepción	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Indique cuáles pueden ser las barreras que le impiden buscar información sobre anticoncepción de las siguientes fuentes de información.

	No me da confianza ni privacidad	Pueden juzgar o ser irrespetuosos	No aceptan mi comportamiento sexual	Los horarios de atención no son adecuados	No confío en esta fuente de información	Es difícil de entender	Es difícil de encontrar lo que busco	Ninguna barrera
Internet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Personal de salud como médicos, gineobstetras, enfermeras, farmacéuticos, entre otro personal de salud ,	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Familia	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Amigos	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Televisión	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Radio	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Medios impresos como periódicos , libros, revistas, correo postal, panfletos, posters	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

¿Qué otras barreras pueden evitar que busques información sobre anticoncepción?

¿Alguna vez ha utilizado algún método anticonceptivo moderno para evitar el embarazo? Los métodos anticonceptivos modernos son los condones, pastillas, inyecciones, pastilla del día siguiente, entre otros

☐ Sí

☐ No

¿Utiliza actualmente algún anticonceptivo moderno para evitar el embarazo? Los métodos anticonceptivos modernos son los condones, pastillas, inyecciones, pastilla del día siguiente, entre otros.

☐ Sí

☐ No

¿Cuál es el salario mensual de su familia?

☐ Menos de 1,000 soles

☐ 1,001-1,500 soles

☐ 1,501-2000 soles

☐ 2,001-2,500 soles

☐ Más de 2,501 soles

Nivel educativo de su padre

☐ Primaria incompleta

☐ Primaria completa

☐ Secundaria incompleta

☐ Secundaria completa

☐ Universidad incompleta

☐ Universidad completa

☐ Maestría

☐ Técnico

Nivel educativo de su madre

- ☐ Primaria incompleta
- ☐ Primaria completa
- ☐ Secundaria incompleta
- ☐ Secundaria completa
- ☐ Universidad incompleta
- ☐ Universidad completa
- ☐ Maestría
- ☐ Técnico

¿Cuál es su idioma materno?

- ☐ Español
- ☐ Quechua
- ☐ Otro

¿Cuál es su edad?

- ☐ 18 años de edad
- ☐ 19 años de edad
- ☐ 20 años de edad
- ☐ 21 años de edad
- ☐ 22 años de edad
- ☐ 23 años de edad
- ☐ 24 años de edad
- ☐ 25 años de edad
- ☐ 26 años de edad
- ☐ Más de 26 años de edad

¿Dónde vive actualmente?

- ☐ Amazonas
- ☐ Ancash
- ☐ Apurímac
- ☐ Arequipa
- ☐ Ayacucho
- ☐ Cajamarca
- ☐ Callao
- ☐ Cusco
- ☐ Huancavelica
- ☐ Huánuco
- ☐ Ica
- ☐ Junín
- ☐ La Libertad
- ☐ Lambayeque
- ☐ Lima
- ☐ Loreto
- ☐ Madre de Dios
- ☐ Moquegua
- ☐ Pasco
- ☐ Piura
- ☐ Puno
- ☐ San Martín
- ☐ Tacna
- ☐ Tumbes

○ Ucayali

¿Dónde nació?

Amazonas

- ☐ Ancash
- ☐ Apurímac
- ☐ Arequipa
- ☐ Ayacucho
- ☐ Cajamarca
- ☐ Callao
- ☐ Cusco
- ☐ Huancavelica
- ☐ Huánuco
- ☐ Ica
- ☐ Junín
- ☐ La Libertad
- ☐ Lambayeque
- ☐ Lima
- ☐ Loreto
- ☐ Madre de Dios
- ☐ Moquegua
- ☐ Pasco
- ☐ Piura

- ☐ Puno
- ☐ San Martín
- ☐ Tacna
- ☐ Tumbes
- ☐ Ucayali

¿Cuál es su estado civil?

- ☐ Divorciada
- ☐ Conviviente
- ☐ Separada
- ☐ Soltera sin pareja
- ☐ Soltera con pareja
- ☐ Viuda

¿Cuántos hijos ha dado a luz?

- ☐ 0
- ☐ 1-2
- ☐ 3-4
- ☐ Más de 5

¿Practica alguna religión?

☐ Sí

☐ No

¿Qué religión practica?

☐ Católica

☐ Evangélica

☐ Otra religión

¿Qué tan seguido acude a misa, al templo u otro lugar de adoración?

☐ 0-1 vez al mes

☐ 2-4 veces al mes

☐ 5-7 veces al mes

☐ Más de 8 al mes

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