

Factors Influencing the Decisions of Non-Medical Professionals in Barangay Tugatog, Malabon in Choosing the Most Appropriate Health Information

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Abstract

“Laughter is the best medicine” already became a household phrase, oftentimes used as a joke when someone doesn’t want to take medication. Health Information in the Philippine setting is very complex. It is a combination of early traditional and modern scientific practices. Libraries play critical roles in the e-health era. They are tasked to help prevent health information seekers from being overwhelmed with the myriad of health information available to them and help select relevant and trustworthy information, and thus making informed decisions.

The focus of this research is to determine the behavior of the non-medical practitioners of Brgy. Tugatog, Malabon towards health information, particularly the factors affecting decisions made by the respondents regarding health information usage and acceptance. The participants of this study are composed of non-medical practitioners: those who are not licensed medical doctors, dentists and ophthalmologists. The participants were randomly selected from Barangay Tugatog, Malabon with ages ranging from 18 and above, and were asked to answer a survey questionnaire.

After analyzing the data gathered for this study, it was found out that there are three main factors that influence the decision of non-medical professionals in choosing the most appropriate health information. These are the attributes of health information source, personal biases, and the nature of needed health information.

Keywords: Allied health personnel, information services, information literacy, health information, Malabon

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Introduction

Information is an individual's acquired data fit into an overall framework of previously acquired information. It is then called transformed data when people acquire it in the course of their daily activities (Devlin, 1999). However, from just being aware and informed, people can respond and analyze the information to be able to pass judgment. Going beyond this awareness takes the individual a higher step in the knowledge spectrum, which is gaining knowledge. Through knowledge, a person can use an organized record of human experiences and extend further the level of understanding to meet life's contingencies, thus acquiring wisdom (Debons, 1988).

For example, take a mother pacifying her crying baby. The baby's cry acts as data, and as the mother receives the data, it transforms into information signaling that the baby wants to tell something. The mother then checks on the baby's condition, possibly a dirty diaper or droopy eyes, and incorporates the information with past instances when the baby has cried. This application of information with past experiences transforms information to knowledge. Wisdom is seen when the mother passes judgment on what the baby's message is and decides on what to do to soothe the baby.

In the absence of textbook definition and for the purposes of this study, "health information" would refer to different information regarding human health and medicine. This includes, but not limited to, traditions and practices carried on through generations, proven by science and those newly discovered health information. It also includes the different available formats of health information: print and non-print. The formats of health information medium will include, but not limited to, different types of visual communication technologies like electronic displays, film and photography, print and facsimile printing (Debons, 1988).

The definition for the term "health information" should not be limiting and be used in a broad, inclusive sense (Lyders, 1994). Like any other types of information, health information also goes through the different steps in the knowledge spectrum. Starting from being a mere data, it also transforms to knowledge, then wisdom just like the previous example of the mother and the crying baby.

There are many ways people can acquire health information or information in general. People seek information from peer-kin network, directly from service providers, from professionals like doctors, from intermediaries such as libraries and information and referral (I&R) agencies and online community network (Pettigrew & Wilkinson, 1996). Since every individual has different personal experiences affecting personal knowledge spectrum, source priorities also vary.

Age and profession can also be a factor in health information source selection. Younger generation, especially college students seek the Internet for health information (Escoffery & Miner, 2005). Educated people seek health information from hospitals and pharmacies (Afolabi, 2008). The type of information needed, from as simple as cures to household sickness to symptoms of a serious medical condition, also contributes to which source an individual will use.

Being a part of someone else's peer-kin network, an individual also takes part in information dissemination. An individual can convey meaning or significance from experience represented by some action to other people. It can be a simple information transfer to make someone aware of health information. It can also be knowledge transfer to extend this awareness to higher cognitive levels, making other people fully understand and synthesize this health information to other information (Debons, 1988).

Though information transfer can be very easy, there are some underlying social factors such as issues of confidentiality and privacy, and the influence of technology and media on behavior and dissemination of information (Debons, 1988). Usually conversation takes a great part in health information transfer. There are common principles followed in conversation contributions such as quantity, quality, relation, and manner (Devlin, 1999).

However, going back to the knowledge spectrum, everyone having different backgrounds and experiences can result to different representation and analysis of information. A person can say one thing and it may have a different meaning according to the receiver (Devlin, 1999). Applying information representation and analysis to world view, though starting with a common data base, different solutions are produced depending on how data is observed from two different views (Debons, 1988). Health information can be accepted, rejected or misinterpreted depending on the source and receiver of the information. This difference in views of information directly affects the decisions of a person since the spectrum is hierarchical. Decision-making requires knowledge for evaluating alternatives and wisdom for making choices among them (Galotti, 2002). A change in interpretation of data to information then leads to change in transformation of information to knowledge and wisdom.

Health Information in Philippine Setting

"Laughter is the best medicine" already became a household phrase, oftentimes used as a joke when someone doesn't want to take medication. However, it clearly reflects how most Filipinos view health and medicine. Health Information in the Philippine setting is very complex. It is a combination of early traditional and modern scientific practices. The early traditional practices include use of alternative and herbal medicines, and consulting an *albularyo* or a *hilot*. On the other hand, examples of modern scientific practices are undergoing a medically established treatment procedure, taking prescribed and doctor-recommended medicines, and consulting licensed physicians.

Health information also takes different formats; some are from print materials while some are passed by word of mouth. Apart from direct transfer of information, some are acquired through daily activities, known as Information Theory (Rescorla & Wagner, 1972) and experiences observed from the environment or the Observational Learning Theory (Bandura, 1965).

What makes the health information in the Philippines interesting is the co-existence of often contrasting views of early traditional and modern scientific practice. Coming from a family of medical practitioners and being surrounded by friends in the medical

field, the researcher's stand is usually towards the use of scientifically proven health information. The issue of seeking health information from alternatives instead of medical professionals, when making health decisions, has been a recurring topic even in household discussions. The issue of self-medication and evidence-based medicine also calls for attention since there has been news of popular health and beauty products confiscated by the Department of Health (DOH) for posing imminent danger or injury to consuming public (Cebu Daily News, 2011). Because of the presence of different sources of health information, some being dangerous to users, library and information specialists have the responsibility to lead health information seekers to factual information.

Libraries play critical roles in the e-health era. Serving as an intermediary in lowering the barriers to health information seeking and promoting health information literacy is one of the critical roles of the libraries. Health information produced by a variety of sources is oftentimes fragmented, making interpretation of obtained information difficult. This could lead to negative consequences, such as information overload, uncertainty, and frustration, especially on the non-medical practitioners (Parker & Kreps, 2005). Libraries are then tasked to help prevent health information seekers from being overwhelmed with the myriad of health information available to them and help select relevant and trustworthy information, and make informed decisions (Chobot, 2004)

The respondents of the study were "non-medical practitioners" in Barangay Tugatog, Malabon aged 18 and above. This excluded "medical practitioners" (defined by Philippine law under Republic Act no. 4224, an amendment to Republic Act no. 2382 or the "Medical Act of 1959") who are licensed physicians in the field of Medicine, Dentistry, and Ophthalmology. These fields have further knowledge of health information, usually taken at least six years in university to get the degree, and are the only fields allowed to prescribe to human patients. For this study, nurses, veterinaries, pharmacists and other people in the health field but are not allowed by the law to give people prescriptions are considered non-medical practitioners. Moreover, people who do not have background on health and medicine are definitely considered as non-medical practitioners.

The main reason for choosing non-medical practitioners as subject of the study is that they are unlike medical professionals who are already geared and trained to determine which health information sources are reliable. Medical professionals usually lean to using established-by-science health information when making health related decisions. Non-medical practitioners rely on other information sources for their health concerns, such as their parents, their doctor or what they read (online or in print). Unlike medical practitioners, they may or may not have the necessary value judgment toward health information and health information sources.

The idea of this study was motivated by health information in the digital age. Health information has become more accessible to people with the arrival of the digital era. Online medical communities have been established and consultations can now be done online. Libraries play critical roles in the e-health era. Serving as an intermediary in lowering the barriers to health information seeking and promoting health information literacy is one of the critical roles of the libraries. Libraries are then tasked to help prevent health information seekers from being overwhelmed with

the myriad of health information available to them and help select relevant and trustworthy information, and make informed decisions (Chobot, 2004).

Description of Methodology

The study is a descriptive in nature that used both qualitative and quantitative research techniques. The study focused on non-medical professionals aged 18 and above in Barangay Tugatog, Malabon. Basing on the total number of 7,594 registered voters as of 2010, a sample of 380 respondents was obtained. However, data from only 300 respondents were obtained due to inclement weather and respondents' busy schedule. The study used systematic random sampling and data were gathered simultaneously from three different areas: a sari-sari store, the midpoint of barangay hall and barangay center and near the boundary of Barangay Tugatog. Diseases included in WHO's and DOH's list of top infectious diseases and causes of death in the Philippines were given focus.

Observation around Barangay Tugatog was also done to find out sources of health information available to the community as well as to discover additional possible sources of health information. Observations were also conducted throughout the time when the study was being written.

Data were analyzed using descriptive statistics and Pearson's correlation evaluation. For descriptive statistics, frequency was used for the presentation of distribution of data gathered. Percentage was used to quantify the total number of respondents. Mean was used to get the data's central tendency, while standard deviation was used to get the pattern of variation of data. Correlation of independent and dependent variables was performed to determine the strength of relationship or influences of one variable to the other.

Principal Findings of the Study

Available Sources of Health Information in Barangay Tugatog, Malabon

The summary of findings that present the observed available sources of health information, both effectively used and not, in Barangay Tugatog, Malabon are listed as follows:

1. **Barangay Health Center** – There is only one health center in Barangay Tugatog and it is situated among the middle and upper class residents. The health center is not easily accessible. People need to ride a *pedicab* or tricycle, or walk a distance before they can consult the doctors in the barangay health center. The services offered by the barangay health center are not available every day. Because of limited funding, there is an allotted schedule for specific health conditions. The health center indeed lacks equipment and facilities.
2. **Privately-Owned Health Clinics** – Most of these private owned health clinics are situated among the less privileged residents. Some save up to pay for professional fees if it means comfort during consultation and speed of health care delivery.
3. **Drugstores/pharmacies** – These are usually owned by popular doctors. Because of name association, some just visit the drugstore and ask the pharmacist for appropriate health information for self-medication. They are typically situated

amongst the less fortunate residents of Barangay Tugatog, Malabon. This makes the drugstores more accessible to them than the barangay health center.

4. **Library** – The libraries in Barangay Tugatog are school libraries. Even small reading centers are unavailable in the barangay.
5. **Schools and Teachers** – Most of the health drives are initiated by the private schools around the barangay. Teachers in these schools have influence on the health related decisions by the residents, especially kids, on what is safe to eat and not. Schools serve as link to the community and the local government's health related activities. However, the decision on which activities to do for the said "awareness month" is up to the school.
6. **Barangay Sports Complex** – This is situated beside the Barangay Hall. Most of the government and private organization-sponsored health-related charity works like free vaccines, medical and dental missions, and free circumcisions are done in the sports complex. It provides a great venue for health information dissemination. All target age brackets have easy access to the barangay sports complex. Most of the announcements printed in tarpaulins are displayed along the walls of the sports complex.
7. **Internet Cafés** – These are abundant around the barangay. The services are available for cheap prices. However, they are not effectively used as source of health information. Users visit the Internet café mainly for entertainment and academic purposes.
8. **Church** – It has many attendees not only on regular Sunday Masses but also on weekday devotions. The church provides health missions for the community and announcements about it are displayed outside the church grounds. In terms of health information, the discussions on health issues are usually connected with faith. They subtly provide diagnosis on health issues through divine explanations. Church and religion also has influence on lifestyle and health preferences of churchgoers.
9. **TV and Print Advertisements** – Because Tugatog is considered an industrial barangay, most of the posters and pamphlets circulating around the barangay are commercial. The posters available in private clinics are usually commercial. Most of the residents have their own TV sets. People's preference on medicine is influenced by what is frequently seen in the television. Buyers are not aware of the generic name of the medicine and are sometimes clueless when recommended with other brand of medicine having the same generic name.

View on Health Information from Non-Medical Practitioners:

Relationship Between Dependent and Independent Variables

The instances where respondents seek health information are when they feel something odd with their body or not feeling well. This is further supported by two other findings. One is that the type of health information respondents usually seek is health improvement. The second is that respondents usually visit the doctor due to consultation on chronic or recurring pain and illnesses.

Reason	Frequency	Rank
Not feeling well	283	94.33
Out of curiosity	49	16.33
Someone else needs it	48	16.00

Table 1. Reasons Why Respondents Search for Health Information (n=300)

According to correlation evaluation, independent variables such as age, sex, educational attainment and work do not have strong relationship with dependent variables as to types of needed health information. Independent variables do not possess strong relationship with sources of health information aside from family. Age and educational attainment have moderate relationship with family that can be viewed that the respondents' dependency on family changes as they mature and acquire more knowledge.

Independent Variables	Types of Health Information			
	Health Improvement	Medical Treatment	Family Health	Sensitive Health Issues
Age	-0.05	-0.08	-0.08	0.19
Sex	0.02	-0.01	-0.02	0.00
Educational attainment	-0.03	-0.02	-0.02	0.07
Work	0.01	0.08	-0.19	0.07

Table 2. Correlation Between Independent Variables and Type of Health Information

Among available health information sources, *hilot/albularyo* ranked the lowest. The main reason why is that they lack what the first source priority doctors have. They lack expertise and credibility, as well as proper diagnosis.

Biases in Choosing a Health Information Source

Biases influence respondents' selection of sources. The strongest biases are deference to authority and attraction, which are evident in parents being one of the top sources of health information. Other influences include overconfidence bias, representative heuristic and confirmation bias.

Level of Confidence on Health Information from Non-Medical Professionals

The top 5 sources of health information according to specific health issues are doctors, parents, barangay health centers, Internet and people who have experienced the disease. As for health information from non-medical professionals, Internet has the most number of having a higher than 2.0 rating. Parents follow closely, as well as friends and acquaintance. *Hilot* or *albularyo* got the lowest level of confidence. It only has one higher than 2.0 rating when 3.0 is the highest possible rating.

Regarding the least used sources of information, easy access and availability are the reasons for being not usually prioritized. There are no public libraries in Barangay

Tugatog, Malabon. Since there are only school libraries, the libraries are not easily accessible to the public. This also gives the notion that libraries are only for academic purposes.

Perception on Health Information from Medical Professionals

Doctors are the consistent top source of health information. They have the highest frequency percentage of ranking first among other sources of health information. When searching for health information for sensitive health issues, they are also the usual first source priority. Most of the respondents choose to believe doctors in the presence of contradicting health information from non-medical professionals because they are more expert in the field of health and medicine. They are also perceived as better provider of health information since they can answer follow-up queries for better understanding of needed health information.

Though respondents have high level of confidence on health information coming from their prioritized sources, they still choose not to share the health information they have to other people. They mainly choose to keep the health information to themselves because of fear. They fear giving inappropriate health information that can lead to misdiagnosis.

Conclusion

What types of health information do the non-medical practitioners of Brgy. Tugatog, Malabon usually seek?

Respondents usually seek information on health improvement. The search for health information is usually instigated when the seekers feel something wrong with their body like chronic and recurring pain and other illnesses. The other types of health information that respondents seek are for family health, medical treatment and sensitive health issues.

What possible sources of health information do the non-medical practitioners of Brgy. Tugatog, Malabon consider?

Basing on the results of the gathered data, it shows that there are at least 25 sources that respondents consider when looking for health information, namely:

- doctors
- parents
- clinics
- neighbors
- people (acquaintances) who experienced the disease
- relatives who experienced the disease
- Internet
- friends (in general)
- family/relatives
- health centers
- hospitals
- herbal medicines
- pharmacies
- nurses
- radio
- TV
- authorities/specialists
- special institutions
- celebrities (product endorsers)
- posters
- God
- books
- newspapers
- libraries
- hilot/albularyo

What are the factors that affect the non-medical practitioners of Brgy. Tugatog, Malabon's selection of sources of health information?

The sources listed above are not randomly selected. The attributes of the health information sources are taken into consideration when selecting possible sources of health information. Being reliable is the most important quality the respondents

consider when selecting sources of health information. The manner of delivery of health information also affects the use of sources of health information. Easily accessible sources are more frequently used than those which are not. Source selection is also influenced by the speed of delivery of health information and the ease of use of the information source.

Personal biases usually affect the respondents' selection of sources of health information. The dominant biases are deference to authority and attraction. Health information seekers can be influenced by or comply with someone who is in authority or shows signs of authority as seen in the case of parents (Meichenbaum & Price, 1988). Other influential biases are overconfidence, confirmation and representative heuristic.

What is the order of priorities of source of health information do the non-medical practitioners of Brgy. Tugatog, Malabon consider as to type of information source?

The nature of needed health information also affects the order of priorities of source of health information. For sensitive health issues, respondents choose doctors, parents, barangay health centers, Internet, and people who have already experienced the disease are the top choices. The more complicated the needed health information becomes, the more authoritative the source should be.

What are the bases of the non-medical practitioners of Brgy. Tugatog, Malabon in selecting which source of health information to follow/believe?

Health information from medical professionals is more likely chosen over health information coming from non-medical professionals. They choose to believe the source that has expertise on the needed health information and is already tried and tested. For some who have a hard time deciding between medical and non-medical professionals, they search for more sources. The health information source that matches the third source will be the one accepted.

What factors influence the decision of non-medical practitioners in choosing the most appropriate health information?

After analyzing the data gathered for this study, it was found out that there are three main factors that influence the decision of non-medical professionals in choosing the most appropriate health information. These are the attributes of sources of health information, personal biases and the nature of needed health information.

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