



The Estimation of Consumer's Health Information Needs and Information Seeking

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Abstract

The study purpose is to evaluate the attitude of consumers towards health information needs, behavior, and the source of health information. With this, it also identifies the hurdles being faced by the patients while collecting of health information. A quantitative research method used to find the barriers of consumer' health information seeking. For data collection a questionnaire, consisted of close ended questions. The population of the study comprised of three public hospitals. The data was collected in the purposive sampling techniques. Out of 300 population, total 263 responds with the response rate of (87%) and was analyzed by using descriptive statistics through SPSS. Results of the study revealed that respondents prefer to seek information from doctors and have more satisfaction about the information collected through them whereas the patients consider the information collected from internet and other sources as less reliable. The study suggested that medical libraries and librarians should take step to provide their services and sources to the consumers/patients for their health information need and seek.

Keywords: Health information, internet, health professionals, patients



Introduction

This study aims at assessing the consumers' information behavior related to health needs and obtaining the sources of information that consumer utilizes to get knowledge about the health problems. The research focused on consumers which are patients facing health related issues and intend to get information related to their health issues. Study emphasizes on consumers' interest to acquire information about health issues including identification of disease and its treatment. The study articulates consumers' source of information and their needs, constraints during obtaining information; it is worthy to note that access to health information to consumers is among major challenges. Consumers adopt different sources to acquire health information based on the access or exposure to electronic, print, and digital media (including online blogs, social media etc.), educational institutions, peer groups and society. Information plays a vital role in our civilization. Almost all scientific disciplines use the perception of information within their concept. Information plays an interdisciplinary task and plays a key role in every part of life (Capurro and Hjørland, 2003).

Information is important for successful operations and at the same time useful for decision making in all areas. Kaye (1995) expressed that the majority of different organizations, managers and administrators agree that useful information is necessary for the success of an organization; Citroen (2011) stated that information usage helps reduce uncertainty. The effect of information on the reception of information is very helpful. In the existence of information, a revolution has taken place in recent years. Kaye (1995) stated that information is used for different purposes such as problem solving, selection and decision making, marketing and training, understanding and learning, ideas, inventions and discoveries, informed action and operations. Wilson (1981)



described that information needs is the desire to meet the needs of any group or any individual to seek information. Explained the different situations in which information is searched by users and used after the completion of the information process. This situation, which is considered a social condition, but in some cases, the concept of knowledge of information needs is insufficient for some research purposes in the field of information science, and for other areas, Information needs are broader than in other areas, and this can lead to specific problems in searching for multiple sources for answers (Gonzalez, 2007). Fatima and Ahmad (2008) described in their study that Information needs and seeking behavior are a broader concept that encompasses many actions, that is, expressing, communicating, searching for, evaluating, searching, and using personal information to meet their needs. Information needs and information seeking behaviors affect scientists, librarians, psychologists, and social scientists, among others.

Patient requires health information

- Treatments
- Understanding with the health issue
- Self-care assistance
- Gain a convincing idea of prediction
- Make most of discussions
- Understanding of processes and tests possible outcomes
- Availability of services and sources for support
- Assist others in understanding with health issues



- Legitimize finding support and others concerns
- Provide encouragement and support to handle
- Identification of more information sources and self-support groups
- Learn to prevent further

A consumer health information whitepaper issued by the US national Information Infrastructure task force that gave authority to consumer health care information needs. This document defines consumer health information as "any information that enables individuals to make health decisions for themselves or their families." Consumer health information according to this document;

- Self-care
- Shared decision making of patients and professionals
- Information support to individual and community-based health enhancement
- Peer group support
- Patient awareness and rehabilitation
- Using health care system and selecting health insurance service provider

Redmond *at el.*, (2010) opines that considering consumer perspective, health information can be rigorously pursued or shared for private or public awareness campaigns. It also focusing specific issues which in all impartiality and contain a complete set information and should be made available on various mediums and localities which may include libraries, waiting rooms for doctors. The efficiency of consumer health care information is not only gauged through communication of rapidness and completeness of the information but also through changes in behavior. The objectives of the consumer health care information achieved once the awareness



changes the person's attitude and behavior. In short, consumer health care information is developed to strengthen consumers through sharing own health care information into their hands. However, it is to remember that all attained information utilization is not mandatory.

Clarke *et al.*, (2015) described that there are various sources of information for the treatment of disease and their continued process. From information consumer's perspective, information gained is dependent on various factors which includes past experiences, specific need context, available sources and medium of information.

Pomey *et al.*, (2007) Is of the view that information needs arise from:

- Details which are practical and specific for decision making about the likely reasons of an illness, assessment of complexity and seeking professional advice
- Advice on the management of the illness
- Available treatment
- Illness Implications
- Potential prevention for future.

Smith, Joye, and Howarth (2006) found that internet has democratized access to information about the health issue which means that individuals now can search information without much technical skills to evaluate the reliability, accuracy and authenticity of this information.

Statement of the Problem

This research discusses consumers' health information needs and information seeking behavior. The consumers' who were suffering with the diseases of cancer, cardiovascular /heart disease, thalassemia, chronic kidney disease, hepatitis and diabetes were studied under this study.



In this perspective, with the help of data analysis, the study is able to identify the sources of information to prevent from the diseases. Furthermore, there is also need to determine the challenges and the barriers that are being faced regarding health information seeking. The possible outcomes of this research will be helpful for experts and policy makers to improve the system of health services and to determined that barriers in the community.

Objective of the Study

The research study objectives consisted on: -

1. Determine the attitude of consumers towards health information needs
2. To assess the behavior of consumers health information seeking
3. To evaluate the source of information used by the consumers about health information
4. To find out the barriers regarding consumer health information seeking.

Significance of the Study

Fundamental objective of study is to evaluate consumers' health information needs and information seeking at Bahawal victoria hospital, Bahawalpur institute of nuclear oncology and civil hospital Bahawalpur, Pakistan. At international level several studies measured the consumers' health information seeking behavior (Ramsay & Eckert, 2017; and Cline & Hynes, 2002). However; consumers' health information seeking behavior is not measured in context of south Punjab, Bahawalpur, Pakistan. Therefore, the study is one of its kinds. The results of the study will be helpful for medical librarians and hospitals administration to identify the patient's health information needs and barriers in information seeking regarding health issues.



Literature review

Colledge *et al.*, (2008) described the concept of information need and defined this as “people awareness or recognition of not knowing or existence of uncertainty”. Therefore, individuals find some sort of information for the resolution and keenness to locate and get information their personal satisfaction. In the past information seeking behavior considered in different setting with diversity of individuals with varied goals and motives. All individuals seek information but for some individuals in some situation. This high stake is requiring research focus. Still there are doubts about the extent of the human behavior pertaining to information can be investigated.

Fox and Duggan (2013) stated that access to information is considered as entire precise according to article 19 the universal declaration of human rights and information access in health considered as critical for improve quality of life. Due to fast development of information communication technologies, the process of the information seeking and its tools dynamically change resulting impact on individuals’ method of accessing information, using and health care systems. In this emerging situation, it is pertinent for the medical librarians to take measure to support consumers for health information delivery.

Fiksdal *et al.*, (2014) opines that while finding information, consumers normally use search engines like Google, yahoo or other dedicated health information related websites like WebMD or Mayo clinic. Ehret *et al.*, (2011) studied that consumer are also interested in individual stories about sufferings from various blogs, individual websites, groups and social media websites. Sometime, these information searches occur in the premises of public libraries due to availability of computers and free internet. Lember and loiselle (2007) found that 98 % respondents offer the



view that health professionals as well as doctors found authoritative and widely used sources for health information. As per the past studies, health professionals or doctors are the first authoritative information which confronts with consumers during health issues. Self-caring attitude and counter medication availability has been discussed a lot but still consumers visit to doctors for assessment of their disease. Second most significant information appears not be garnered from more authoritative sources but from friends and family members. In most of the studies, existence of the interpersonal communication with regards to searching more information about the disease or illness has been found. Most of the consumers enquire from personal networks questioning from the basic facts to the comfort.

Jacobs *et al.*, (2017) stated that internet is the emerging source of information which is gaining popularity. There is significant increase observed the usage of internet as the source of health-related information. In united states, one –third of consumers use the internet to solve their health problems. Although 86% population of U.S is connected with internet, but there are still many people/consumers who prefer to use traditional media like libraries, books, TV, brochures, magazines and doctors as the main source of health information. Researcher found that although internet is a well source of information but it creates inequality in access of health information especially among the elderly and low-educated consumers.

Burzyńska, Bury and Januszewicz (2015) described that accessibility of information is most important facts in selection of source of information. It is also found that mass media popular among most of the research participants due to illustrative visuals, self-explanatory photographs and videos. Television plays significant role as compared to other type of Media. Specific programs on health issues, publicity campaigns and incidental pieces of information found from



the television dramas. Publicity campaigns, specific health programs as well as incidental bits of information found from tv dramas which helps health information dissemination. Study showed that Television presents itself as a promising source of information on health and disease, which affects the level of knowledge of the viewers or patients. It is also an important source of health information for the consumers with low level of education.

Research Design and Methodology

The study was aimed to measure the attitude of consumers' while assessing the need of health information and behavior towards seeking the health information. Further this study also helps to understand the consumers' preference towards the selection of source for the collection of information relating to health issues and also identifying the barriers faced by the consumer while collecting health related information. Considering the location of population which was consisted of three hospitals of Bahawalpur, researcher decided to adopt a quantitative research method by choosing descriptive survey methodology to inquire the participants' demographic information, attitude of consumers towards health information needs, behavior of consumers' for seeking health information, information source used about health, barriers regarding consumers' health information seeking. Population of the study comprised of three public hospitals of Bahawalpur. The names of these hospitals are, 'BVH', 'BINO' and 'CIVIL' hospitals of Bahawalpur. Having limited time and resources researcher adopted purposive sampling technique for data collection because the population of the study was large. It was not possible for the researcher to include everyone in the present study. This study is a cross-sectional study using self-structured questionnaire having by its design. Quantitative reviews strategy makes more normal outcomes on goals and patterns in data exercises. The study explored the consumers' health need and seeks



according to their disease. The findings help to appreciate the research work, weigh new suggestion of information sources and plan the future. After a detailed relevant literature review, a self-structured questionnaire was developed to collect data from respondents.

Data Analysis and Interpretation

The collected data was entered in Statistical Package for Social Science for coding and analyzing. Data were analyzed using descriptive statistics. The results of the study interpreted and information about respondents was explained about health information behavior.

Respondents' Gender Distribution

Table-1 indicates that respondents were almost equally distributed in male and female groups, male 126(47.9%), and female 137(52.1%).

Table -1 Age Group of the Respondents

| Gender | Frequency | Percentage |
|--------|-----------|------------|
| Male | 126 | 47.9% |
| Female | 137 | 52.1% |
| Total | 263 | 100% |

Table-2 Mode of Information about the Disease

| Patients Age | Frequency | Percentage |
|--------------|-----------|------------|
| <15-Year | 11 | 4.2% |
| 16-30 | 56 | 21.3 |
| 31-45 | 88 | 33.% |
| 45-60 | 87 | 33.% |
| 60> | 21 | 8.0% |



The majority of the respondents were aged between 31-60 years (66.6%). However, only 11(4.2%) of the respondents were less than 15 years. Table 2 depicts that respondent from all age groups were included in the data collection.

Table-5 Health Information Sources

| Information Resources | Frequency | Percentage |
|---|-----------|------------|
| Magazine | 2 | .8% |
| Radio | 1 | .4% |
| Television | 1 | .4% |
| Friends & family/Relatives | 11 | 4.2% |
| Health Professionals (doctors, nurses, pharmacists) | 242 | 94.2% |

The respondents' majority 242(94.2%) prefer the mode for information about the disease to consult direct health professionals (doctors, nurses and Pharmacists).

Table-6 Hospitals of the Respondents

| Name of the Hospitals | Frequency | Percentage |
|-----------------------|-----------|------------|
| BVH | 100 | 38% |
| BINO | 62 | 23.6% |
| CIVIL | 101 | 38.4% |

The 263(100%) respondents 101(38.4%) were from CIVIL hospital, 100(38%) were from BVH hospitals and 62(23.6%) of the respondents were from BINO hospital of Bahawalpur.

**Table-7 Disease of the Respondents**

| Diseases of the respondents | Frequency | Percentage |
|-----------------------------|-----------|------------|
| Cancer | 64 | 24.3% |
| Heart Disease | 41 | 15.6% |
| Thalassemia | 17 | 6.5% |
| Kidney Disease | 30 | 11.4% |
| Hepatitis | 31 | 11.8% |
| Diabetes | 34 | 12.9% |
| Asthma | 17 | 6.5% |
| Others | 29 | 11.0% |

The majority of the respondents were suffering from Cancer 64(24.3%), heart disease 41(15.6%), Diabetes 34(12.9%), and Hepatitis 31 (11.8%).

Table-8 Respondents' Opinion regarding Suffering from the Disease

| Age Group | Frequency | Percentage |
|-----------|-----------|------------|
| <3-Year | 74 | 28.1 |
| 3-5 year | 118 | 44.9 |
| 5-8 year | 34 | 12.9 |
| >8 years | 35 | 13.3 |



The majority 118(44.9%) of the respondents were suffering from the disease between 3 to 5 years. Similarly, 74(28.1%) of the respondents were suffering from the disease, less than 3 years.

Table-9 The perspective of Patients Towards Awareness of Diseases and Treatment

| Rank | Statements | 1 | 2 | 3 | 4 | 5 |
|------|---|------|------|--------|-------|-------|
| 1. | Respondents' seriousness about disease | 8.0% | 3.4% | 15.16% | 64.3% | 16.0% |
| 2. | Respondents' awareness level according to disease | 2.3% | 9.5% | 24.7% | 51.3% | 12.2% |
| 3. | How much you are aware of the treatment plan of your disease? | 2.7% | 6.5% | 27.4% | 52.1% | 11.1% |
| 4. | Respondents' opinion regarding disease treatable | 0.8% | 4.2% | 44.99% | 40.7% | 9.5% |

**The scale 1-5 represent the not aware, slightly aware, somewhat aware, moderately aware, extremely aware.*

Table-9 shows that 169(64.3%) respondents think that their disease is of serious nature, 42(16.0%) considered it very serious and 41(15.6%) respondents slightly serious with their disease. It also shows that respondents' awareness level. The Majority of respondents were moderately aware 135(51.3%), somewhat aware 65(24.7%) and extremely aware 32(12.2%) of their disease. The respondents were moderately aware 137(52.1%), somewhat aware 72(27.4%) and extremely aware 30(11.4%) of the treatment plan of their disease. Table also presents that the majority of the respondents found slightly agree 118(44.9%), agree 107(40.7%) and strongly agree 25(9.5%) that their disease is treatable.

**Attitude towards Health Information Needs**

To measure the respondents' attitude towards health information needs, a set of 6 statements were asked. Table-10 shows that majority of the respondents found agree that “they rely on a regular medical checkup to diagnose my disease from time to time” (M=3.89, SD=.899) “they rely on hospital premises help desk regarding health care and support for health-related issues” (M=3.69, SD=.878). On the other hand, they found slightly agree that “they find proper guidelines regarding their disease through various medium of information” (M=2.97, SD=.905), and “they rely on online help desk services regarding health care and support for health-related issues” (M=2.70, SD=1.002).

Table-10 Respondents' Attitude towards Health Information Needs

| Rank | Statements | Mean | SD |
|------|---|------|-------|
| 1. | I rely on a regular medical checkup to diagnose my disease from time to time. | 3.89 | .899 |
| 2. | I rely on Hospital premises help desk regarding health care and support for my health-related issues. | 3.69 | .878 |
| 3. | I find proper guidelines regarding my disease through various medium of information. | 2.97 | .905 |
| 4. | I rely on online help desk services regarding health care and support for my health-related issues. | 2.70 | 1.002 |
| 5. | I rely on my own conscious to be aware of symptoms of my disease. | 2.63 | .994 |
| 6. | I was aware of my family history of my disease. | 2.18 | 1.113 |

Scale: 1= Strongly Disagree, 2= Disagree, 3= Slightly Agree 4= Agree, 5= Strongly Agree

**Behavior for Seeking Health Information**

To measure the respondents' behavior for seeking health information the statistics of the statements shows in table -11 that majority of the respondents found agree that "they are satisfied with doctor about their disease" (M=3.97, SD=.753), "they are satisfied with the services provided by government for seeking health information in government hospitals" (M=3.54, SD=.907) and "Members of family area good source of information for health information seeking" (M=3.05, SD=.872). On the other hand, they found slightly satisfied that "family members are good source of information for health information seeking (M=3.05, SD=.872) and "they are satisfied with the information for health on the interne" (M=2.40, SD=.832).

Table-11 Respondents' Behavior for Health Seeking Information

| Rank | Statement | Mean | SD |
|------|--|------|------|
| 1. | How satisfied are you with your doctor about your disease? | 3.97 | .753 |
| 2. | How satisfied are you with the services provided by government for seeking health information in government hospitals? | 3.54 | .907 |
| 3. | Members of family are good source of information for health information seeking? | 3.05 | .872 |
| 4. | How satisfied are you with information for health on the internet? | 2.40 | .832 |

Scale: 1= very unsatisfied, 2= unsatisfied, 3= slightly satisfied, 4= satisfied, 5= strongly satisfied

Health information Source Used by the Respondents

To measure the source of information about the health is measure using a set of 10 statements. Single statement received a mean score around 4 indicated the respondents "strongly



agree” consult “through doctors” (M=4.57, SD=.661), “through health professionals” (M=3.75, SD=.865), and “through elderly” (M=3.14, SD=.732). Respondents “agree” concern “through friends” (M=2.78, SD=.679), “through social media” (M=2.49, SD=.779) , and “through internet” (M=2.21, SD=.904).However, they “slightly agree” about “through radio” (M=2.08, SD=.747), “through broacher” (M=2.06, SD=.833), and “through T.V” (M=2.01, SD=.691).

Table-12 Health information Source Used by the Respondents

| Rank | Statements | Mean | SD |
|------|------------------------------|------|------|
| 1. | Through Doctor | 4.57 | .661 |
| 2. | Through Health Professionals | 3.75 | .865 |
| 3. | Through elderly | 3.14 | .732 |
| 4. | Through Friends | 2.78 | .679 |
| 5. | Through social media | 2.49 | .776 |
| 6. | Through Internet | 2.21 | .904 |
| 7. | Through News | 2.13 | .834 |
| 8. | Through Radio | 2.08 | .747 |
| 9. | Through Broachers | 2.06 | .833 |
| 10. | Through T. V | 2.01 | .691 |

Scale: 1= Strongly Disagree, 2= Disagree, 3= Slightly Agree 4= Agree, 5= Strongly Agree



Discussion

Most of the patients perceived the health information provided by medical officer or doctors as the most reliable after those patients gets health information available at the front desk of hospital premises more reliable than the other sources of information i.e., family history, self-consciousness, etc. It was observed that 94.2 % patients prefer the mode of information about the disease to consult direct health professionals. The results are near about to the Lembert and Loiselle (2007) study in which 98% of respondents think that health professionals and doctors are authoritative and widely used sources for health information. Health professionals and doctors are first authoritative which confronts with consumers during health issues. Health information seeking behavior discussed a lot but still consumers visited to doctors for assessment of their disease.

The result of the study showed that majority of the respondents found satisfied that after doctors and health professionals, family members are the source of information for health information seeking. The results are compatible with the study conducted) that many factors affect where and how patients search for health information. Study explores the sources of health information outside the Internet, health professionals are the most common and reliable source of information. In some groups, family and friends were the next source of information. The less educated used television and radio as a secondary source of information. The current study described patients being more satisfied with the information provided by public hospitals. Findings In study by Clarke and Moore (2015) the most common source of information among patients was information about a disease or medical condition and treatment methods, while the most common source of information was doctor.



Findings of the research revealed the usage of source of information of consumers are health care professionals and some patients preferred to get health information through elder members. It also found to direct health sources based on the analysis of health issues to passive consumption channels such as interpersonal communication and written reading, like television and radio serves as main source of health information for patients. Print media and interpersonal networks / elders are best suited to communicate with an active consumer of health related to health problems. It was found in the present study that majority of the respondents agree that doctors are the main source for seeking information regarding their disease. The results are compatible with the study conducted that which source utilized was frequently reliant on the health concern; be that as it may, the most believed source was the doctor. The study highlighted the barriers faced by respondents while seeking health information that one of the main hurdles for seeking health information was that the consumers did not know the online resources very well, and did not know the website and computer use. It also found that health professionals play an important role as providers of consumer health information. For consumers, the Internet does not replace traditional sources of information about the health of consumers, including relatives.

The results of the study are in conformance to Burzyńska, Bury and Januszewicz (2015) and Clarke *et al.*, (2015) which revealed the consumer preference to seek information from health professional and doctors. The contradiction of the results of this study from the studies like Fiksdal *et al.*, (2014), can be justified due to incapability of the consumers' to search online as most of the consumers in our study were having low literacy rate. The issue of the consumers having low literacy rate has already highlighted in literature.



Conclusion

The study concluded that the respondents were aware of their disease. They were moderately aware of treatment plan of their disease. The majority of them choose health professionals and doctors as their health information mode. The research indicated that respondents strongly agreed for regular medical checkup. Most patients were satisfied with the information provided at the front help desk. The study determined that majority of respondents get information of their disease from the doctors. For them, family members, family history, and their own consciousness were secondary sources of information. The study found that majority of respondents had secondary education. That's why they don't know the use of online resources and use of computer. The researcher concluded that the barrier in health information seeking was the absence/lack of an onsite library or health science librarian. The study indicated that educated respondents had no barrier in seeking health information from the internet. Respondents with low education sought more information from doctors, friends, and family members than those with higher levels of education.

Recommendations

The researcher has made the following recommendations based on the conclusion;

1. Health professionals who are working in hospitals, they should provide consultancy so that patient will get the right health information. In this way, patients' behavior toward health information will get improved.
2. Entrance to the health library and the provision of health Librarian services to patients should be made possible.



3. Latest health information in the form of brochures or handbooks should be provided in hospital buildings. So that patients receive the latest information about their disease.
4. Authorities should make a plan that how could be patient get health information from online help desk.
5. Medical librarian should assist patients in using different sources of health information.
6. The health care professional should keep all patient records, so they could provide the latest information to the patients about their disease and treatment.

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