Information seeking behaviour among health professionals in public health facilities in Garissa County, Kenya

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ABSTRACT
Purpose: The need to become informed and knowledgeable which leads to “information seeking behavior processes” is important among qualified health professionals who have vital roles in achieving health goals of a given country. The general objective of this study was to assess information seeking behavior among health professionals in public health facilities in Garissa County.

Design/Methodology/Approach: The study used a cross-sectional study design employing mixed methods of data collection. Stratified sampling was used to select a study sample of 222 health professionals to participate in the study while purposive sampling was used to select participants for Key Informant Interviews and Focus group discussions. Descriptive and multinomial logistical regression was used to analyze quantitative data using SPSS version 20 while thematic analysis was used to analyze qualitative data from Key Informant Interviews and Focus group discussions.

Findings: Results showed that majority of health professionals (86%) sought information only when and work experience (P=0.013) had a statistically significant relationship with information seeking behavior. Among the facility factors, workload (P=0.000), and information sharing (P=0.0000) had a statistically significant relationship with information seeking behavior. Among technological factors, computer proficiency (P=0.000), ability to search information from internet (P=0.000, ability to analyze and interpret digital data (P=0.000) and internet connectivity (P=0.001) had a statistically significant relationship with information seeking behavior.

Contribution to policy and practice: The study is of importance to because there is need for both national and county governments (including other key stakeholders) to develop supportive policies and programs which encourage a culture for improved information seeking behavior among health professionals by promoting initiatives which address the key issues influencing information seeking behavior.

Originality/Value: The study extends the literature on Public health.
BACKGROUND

Information is inevitable in the health profession. The need to become informed and knowledgeable individuals is important among qualified health care professionals (HCPs) who have vital roles in achieving health goals of a given country (PakenhamWalsh & Bukachi, 2009). Updating knowledge with relevant information is very important for health care professionals to deliver quality and sustainable health care services to their consumers. This is possible only when there is a sustainable access to information resources (HIRs) in health facilities (Ghebre, 2005).

Information is important to improve knowledge based on which evidence-based decision is made to serve the clients of health facilities. Access to information facilitates the use of new medical technologies, proper handling of the necessary medical procedures and treatment of patients. Proper information management brings health workers to act harmoniously in a similar manner on medical and health practice (Dubow & Chetley, 2011). Information needs and seeking behaviour varies among HPs working in rural and urban areas due limited access to information outlets (Mohamed, 2009). Internet use, access to library, provision of training on use of audios and videos displays were the main means used to provide information to the users (Garcia, 2010).

The use of information may vary depending on circumstances. The need reaches pick during emergencies. Information needs of health professionals had become more urgent and mandatory due to the emergency of new infectious diseases like severe acute respiratory syndrome (SARS), Asian bird flu, HIV/AIDS, malaria and tuberculosis. It was also due to the increasing concern of bioterrorism (spreading anthrax spores via the US Postal Service in 2001) (LaPelle et al, 2006). Currently, resource limited countries face several health challenges that threaten the lives of millions of people (Ojo, 2006). Lack of information communication creates such situations that produce medical errors, which are common in health facilities. This situation has the potential to cause miss-diagnosis, wrong treatment, increase multi drug resistance, severe injury and unexpected patients death (Dubow & Chetley, 2011). Studies in developing Countries such as Kenya have revealed that several factors such as cost, past success, accuracy, reliability, comprehensiveness, usefulness, currency, response time, accessibility, technical quality, and format influence information seeking behaviour of health professionals (Davies, 2007).

Research Problem

Despite HI being indispensable in delivery of quality healthcare services, many HPs have inadequate access to new information updates such as emerging diseases and medical technologies to enable them deliver quality care (pakenham-walsh & Bukachi, 2009). For instance, in Kenya, Oketch, et al, (2010) reported that 82% of HPs seek HI only when need arises for which a large proportion is not available/reliable. Many of the health professionals rely on observations, advice from colleagues and building experience empirically through their own treatment success and failures. Resultantly, Mohamed (2011) reported that many deaths (Over 800 children and 40 women per hour) could have been avoided if HPs had access to appropriate and reliable HI updates in health care. This could be worse in marginalized regions such as Garrisa County, ranked as one of the top ten marginalized areas in Kenya, which infrastructural and resource challenges which affects access to HI (Marginalized Survey Report, 2010). According to Gatero (2011), understanding information seeking behaviour of health
professionals is the only realistic strategy for addressing their HI needs. Therefore, this aimed to assess information seeking behaviour among health professionals in Garissa

Study Objectives

1. To establish health information needs of health professionals in public health facilities in Garissa county
2. To establish the socio-demographic characteristics of health professionals in public health facilities that influence information seeking behaviour of health professionals in Garissa County
3. To establish facility factors that influence information seeking behavior of health professionals in public health facilities in Garissa County.
4. To determine technological factors that influence information seeking behaviour of health professionals in public health facilities in Garissa County.

LITERATURE

Information Needs and seeking behavior

Understanding of information needs and information-seeking behavior of various professional groups is essential as it helps in the planning, implementation and operation of information system and services in the given work settings (Avitgis et al., 2011). Reviews have indicated that public health practitioners need timely, easy to digest, and up-to-date information that is filtered and summarized from authoritative content sources (Debra & Anne, 2007). Therefore, the working environment and type of task performed by individuals shape their information needs and the ways they acquire, select and use this information. An individual may be motivated to engage in information seeking behaviour in an attempt to fulfil his or her needs (Younger, 2010). However, it is not necessary that information needs translate into information seeking behaviour; several personal and contextual factors may enhance how an individual responds to information need (Case, et al. 2005). Information needs are thus a requirement that may drive health professionals into an information seeking process to meet their information gaps. Knowledge about the information needs, information behaviour and information seeking patterns of health professionals is crucial to effectively satisfy the felt information needs and improve the delivery of health care services in a country.

Institutional Factors

According to Cogdill (2008), work roles and tasks largely determine information needs and information seeking patterns while a number of factors ultimately affect which sources and types of information are used in a given situation. There exists a relationship between task complexity and information seeking behaviour. In the field of science and technology, adequate knowledge of scientists’ information needs is vital for libraries to effectively support their research activities. Many studies have revealed that several factors such as cost, past success, accuracy, reliability, comprehensiveness, usefulness, currency, response time, accessibility, technical quality, and format contribute to the selection and use of different information sources by scientists (Revere et al., 2007).

However, there are numerous barriers that health professionals encounter in an effort to fulfill their information needs which affect their information seeking behaviour. Miranda and Tarapanoff (2008) described these factors as personal, emotional, educational, demographic, social/interpersonal, environmental, economic, and source characteristics.

Technological Factors
A study by Davis reviewed that the main barriers information-seeking behaviour included issues with ‘online resources’ or ‘information technology (IT)’, followed by lack of time, limited search skills, lack of basic IT skills, and irrelevant materials (Davies, 2007). A lot of people are seeking information about an illness on-line, an emerging condition among others with a view of meeting their information needs. Internet is one of the most used resources to provide health information each day. New communication technologies have permeated virtually every area of the 12 healthcare delivery system in recent years, including provider-patient email exchanges, electronic records, access to laboratory results via the Internet, text messaging reminders, and the use of iPhone applications that allow you to have quick access to pertinent health information as well as to take a picture of your prescription and text it to your pharmacy for a refill (Avtgis et al, 2011)

Socio-Demographic Factors

There are numerous barriers that health professionals encounter in an effort to fulfill their information needs which affect their information seeking behaviour. These factors include personal, emotional, educational, demographic, and social/interpersonal. In a study by Gavgani, it found that people who are more educated than others use internet for seeking health information (Gavgani, et al., 2013). Another study done by Bennett et al. (2009) showed that health professionals with more education and who are younger may be more likely to use electronic sources.

MATERIALS AND METHODS

A cross sectional study, takes a snapshot of a population at a certain time, allowing conclusions about phenomena across a wide population to be drawn. This helps to identify specific issues in an identified population. Therefore, this study used cross-sectional study design employing mixed methods of data collection. This design permitted collection of data about variables or subjects (health professionals) as they were found in health facilities. It was also appropriate because a considerable amount of information was obtained from sampled health professionals within a short time by use of detailed questionnaire.

Results

How Health professionals seek health information

Figure 1 summarizes results on how health professionals seek health information. Majority of the respondents (190; 85.6%) sought health information related to their work when need arises while only 42(14.4%) respondents sought health information on daily basis as shown in Figure 1. Qualitative results showed that HPs seek information mainly during emergencies and when new updates are available such as new therapies and medical technologies, new regulations among others. The following remark from one of the key informants supports this finding: “…Yeah, information is required on daily basis but since most of it is basic and readily available, seeking such information is not frequently done. Most HPs seek information to fulfill identified needs and this happens only when a specified and pressing need arises…” Figure 2 summarizes findings for type of information resources used by HPs. In this study, information seeking behaviour was defined by the different types of health information resources employed by health professional to access health information they need. Results showed that majority of the respondents (114; 51.4%) used informal resources (colleagues and senior staff/supervisors) to get health information related to their work. IT-based resources were the least used to get health informational resources. Qualitative results revealed that HPs relied mainly on information provided by colleagues in their profession. IT-based resources were not commonly
used due to poor internet connectivity and ICT infrastructural support. A statement from a FGD discussant explains: “…I rarely use internet to get key information regarding my work because even if I want, there is no connectivity. I find it easy to consult my colleagues within my profession especially my workmates because they are easy to access, reliable and saves time…However, when need arises; I consult manuals and SOPs…”

*Figure 1 How health professionals seek health information*

![Figure 1](image1.png)

*Figure 2 Type of information resources used*

![Figure 2](image2.png)

*Communication channels used to communicate new health information*

Findings on communication channels used to convey health information are summarized in Figure 3. Results showed that meetings was the main channel used to communicate health information to health professionals (35.2%), followed by use of notices (21.7%) and memos (0.7%).

*Figure 3 Communication channels used to convey new health information*
CONCLUSION

Information needs varies across professions with with health updates being the main information sought by health professional. Informal resources (colleagues and senior staff) constituted the main source of health information for HPs followed by print resources updates on health issues being the main information needs for HPs. However, the culture of seeking information was on need basis. The type of information resource used to meet information needs was mainly based on time involved in retrieving information, availability, reliability and ease of access.

Results showed that age and work experience of the HPs influence the type of health information resources used to obtain health information by the HPs (P<0.05).Available resources were not well tailored to needs of users across age groups.

Findings revealed that workload, and information sharing culture influenced information seeking behaviour of HPs (P<0.05). Facilities didn’t have fund allocation for information seeking behaviour which limited efforts to improve availability, access and retrieval of reliable information to aid in health care delivery.Findings revealed that Microsoft office proficiency, ICT skills and internet connectivity influence information seeking behaviour of HPs (P<0.05). Adoption of technology facilitated ease of access to health updates and information especially via internet enabled platforms. However, ICT adoption was low which resulted to in access of information from electronic sources such as internet.

Areas for Further Research and recommendations

The study recommends the following based on study findings:

1. Provide access to informational resources suiting the age and work experience of all the health professionals in the county. This can be attained by developing one stop Health Information Resource Centre in each the county with sufficient print and IT-based resources suited to information needs of all the users. The resource center should be networked-connected to all the facilities to enhance access to available resources virtually.
2. Enhance information sharing among health professionals by formulating effective information sharing guidelines and redistribution of workload among staff.

3. Provide reliable internet access coupled with training of HPs on computer applications in all health facilities to enhance access to IT-based resources.

The study recommends further study on the following areas:

1. Effect of education and profession on information seeking behavior of health professionals. This is the key since this study cannot conclusively conclude on the effect of education and profession on information seeking behavior due to sample size limitation within the professions.

2. Comparative study to establish predictors of information seeking behavior among health professionals by comparing marginalized and non-marginalized areas.

3. Information seeking behavior of health professionals in private health facilities in marginalized areas.

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