

Implementation on ICT Knowledge Development in Healthcare

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Introduction

Information and Communication Technology or ICT actually refers to a broad spectrum of technologies that allow users to get, produce, and share ideas and resources (Paul, 2003). ICT involves of unlimited e-mail, decision support system, and health information system. This kind of ICT based facility is able to assist medical professionals in medical coding, medical billing, registration, accounting, communicating among others. According to Ahmad (2008), in Malaysia, there are increasing demands for health tourism, so the hospitals need to upgrade their healthcare services to meet international standards; the increasing pressure for government to upgrade the healthcare industry and today's tech-savvy consumers demanding better healthcare and customer services are some of the driving factors in adopting automation in the healthcare industry.

According to Baldwin (2006), ICT plays an important role in delivering healthcare today. Based on the study, researcher found that ICT provides greatest impact on the administration tasks, such as reducing filing and workload of healthcare professionals, increasing administrative efficiencies and expanding access to affordable care. It also has shown efficacy in avoiding medical errors by implementing medical guidelines and protocols and reducing health care cost. Information and Communication Technology (ICT) has become a major tool in delivery of health services and has had an innovative impact on quality of life (Achampong, 2012). A national health ICT structure is the necessary step to reaching this transformation, enabling health care information to be delivered securely and fast between health care professionals and medical instructions to communicated more efficient, clear and quick using electronic. In line with this, Malaysia as a developing country has invested heavily in ICT with the mission and vision to improve patient care; Scholars also strongly agreed that Malaysia

realizes that patients with healthy lives are better able to maintain healthy minds, healthy lifestyles, and a balance between work and family. In a similar vein, healthcare service organizations also seek for optimal strategies and solutions to increase their medical services (Zakaria, Yusof & Zakaria, 2009).

ICT Growth for Knowledge Development in Healthcare

The right treatment is not the only issue but to make sure that the right treatment is given to right patient at the right time. Healthcare is experiencing growth in the scientific understanding of diseases, treatments and care pathways (Abidi, 2008). ICT knowledge and development in healthcare is being generated at a step and its utilization can extremely impact on patient care and health outcomes. The growth of ICT knowledge is a similar with the ability to effectively distribute, translate and apply current healthcare knowledge in clinical practice (Lazanas, 2006). According to the World Health Organization, technologies form the backbone of services to prevent, diagnose and treat illness and disease. ICTs are only one category of the vast array of technologies that may be of use, but given the right policies, organization, resources and institutions. So, ICTs can be powerful tools in the hands of those working to improve health (WHO, 2004).

Advantage of ICT in Healthcare Management

ICT has helped the health care management in developed and developing countries; the benefits affect the medical institution's stakeholders: the hospital management, health professionals and patients. Additionally, the use of ICT in health care management reduces the cost of managing the hospitals. ICT introduces the potential sharing of patients' files easily without any threat to patient privacy. It is used for hospital management such as admission and appointment management. ICT can also improve the efficiency of medical personnel by reducing waiting times and minimising paperwork. ICT makes information available for the use of hospital personnel in an easily readable form. The result of patients' test can be added to the patients' case file as soon as they are ready.

Method & Research Design

A qualitative research design is used in this study. De Koning simplifies qualitative approaches aim at enriching the understanding of human experience. Berg, Welman and Kruger (1988)

add on qualitative research is concerned with the meaning of experience, language and symbol. Cresswell (1994) defines qualitative research is an inquiry process of understanding based on distinct methodological traditions of inquiry that explore a social or human problem. In this study researcher will be more focus on how doctors experience in using ICT during they communicating with their patients. De Koning and Kvale recognize a qualitative approach that human experience has meaning in terms of involvement and values. A phenomenology approach, adopted for this study to describe a phenomena or an individual's experience a phenomenon. Phenomenological approach make researcher to come across the doctors "vicarious experience" by access doctor's life-world, which doctor's world of career experience by conducting in-depth interviews. Research methodology aimed at producing rich textual descriptions of the experiencing of selected phenomena in the life world of individuals that are able to connect with the experience of all of us collectively (Smith, 1997). The focus that phenomenology provided on lived experience was congruent with the aim of exploring participants' learning journeys. These techniques allow the researcher to the systematic collection of information about ICT knowledge and development in health practices especially between the doctors and patients at National Heart Institute Kuala Lumpur Malaysia. It will enable the researcher to gain information about the experiences of doctors' use the ICT knowledge in their consultation session with their patients.

Discussion

This study shows that application of ICT in health care, contribute to universal health care in order to the strengthening of the health care delivery systems. This is supported by Simba (2004) Shared and compared health care information by increasing communication through the internet; especially in the use of telemedicine are all but some of the far reaching developments in the application of ICT in the health sector. In Addition an appropriate health care support and information empowers health care workers at the primary health care units. It is also a cost effective and achievable strategy for sustainable improvement of health care in remote areas (Pakenham-Walsh, Priestly & Smith, 1997), through capacity building, and improving quality of health care (Desai, 2009, Geissbuhler, Bagayoko & Ly, 2007). From the interview, one of the respondent said that;-

*At present all the health care professionals are able to communicate quickly with their colleagues and patients through mobile phones and also e-mails.
(Dr Kant)*

According to Burney & Solo (2010) telemedicine is the use of information and communication technologies to provide and support healthcare services at distant locations. Telemedicine can give a new model for interaction with the patients or other important entities such as hospitals, pharmacies, physicians and governmental agencies. The statement supported by the respondent such as;-

There are some modern technology something like digital images such as MRI, X-Rays and Radiographs in the healthcare now. And these ICT facilities are effectively and efficiently using tele-radiology to the health care professionals by saves their time and also without any significant loss of data.

Conclusion

The phenomenon studied in this research comprises the implements ICT knowledge and development in health care. Health care has equally growing with other industries in joining the capabilities of ICT to improve services, knowledge, communication, outcomes, quality, and efficiency with the complexity of modern medicine, it is inevitable that ICT will play an ever increasing role to improve more in health care quality. ICT also play a central role in the redesign of the health care system if a substantial improvement in quality is to be achieved over the coming decade.

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