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Iranian Clinical Staff's Priorities Towards the Roles of Health Information Technology and Management in Clinical Governance

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Abstract: Clinical governance is simply a formalized framework for assuring the quality of patient care on an individual level, as well as across organizations. Few studies were performed about the role of health information technology and management in clinical governance in Iran. This study was conducted to investigate clinical staff's preferences, such as physicians, nurses and allied health practitioners towards the roles of health information technology and management in clinical governance. This descriptive study was conducted in affiliated hospitals of Semnan University of Medical Sciences in Iran during 2012. Measurement tool was a self-administered, valid and reliable questionnaire. Data were analyzed by descriptive statistics. Most of the study subjects (69.5%) were nurses, 80.6% were female, 3.6% selected the role of health information technology as 1st and 2nd priority. About 60.4% chose the role of management in clinical governance as 1st priority. It is concluded that most clinical staff believes that health information technology has little role in clinical governance. It is necessary, clinical staff will be aware that health information technology is in general increasingly viewed as the most promising tool for improving the overall quality, safety and efficiency of the health delivery system. Also, the most clinical staff believed that the management is responsible for managing the clinical governance unit to lead, coordinate and support clinical excellence health care settings.

Key words: Clinical staff, priorities, health information technology, management, clinical governance

INTRODUCTION

Over recent years, the health service has placed an important emphasis on quality and patient safety by developing an infrastructure for integrated quality, safety and risk management with the aim of achieving excellence in clinical governance. The quality and patient safety directorate is building on this (Phillips *et al*., 2010). Formalized governance arrangements ensure that everyone working in the health and personal social service are aware of their responsibilities, authority and accountability and work towards achieving improved patient outcomes (Haxby *et al*., 2010).

Many health care practitioners remain unsure about the meaning of clinical governance and and its effect on their day-to-day practice. Also, they are confused about the changes needed within a practice to implement it (Walshe, 2000).

There are many sources of practical advice on clinical governance in primary care and on practice development (O'Donnell *et al*., 2011). Funding is available to support development of the practice team, such as the non-medical education and training levy but this is not always applied effectively (Phipps, 2013).

However, clinical governance is simply a formalized framework for assuring the quality of patient care on an individual level, as well as across organizations (Phillips *et al*., 2010). Clinical governance is a framework through which healthcare teams are accountable for the quality, safety and satisfaction of patients in the care they deliver (Webb *et al*., 2010). It is built on the model of the chief executive officer/general manager or equivalent working in partnership with the clinical director, director of nursing/midwifery and service/professional leads (MacVane, 2013).

A key characteristic of clinical governance is a culture and commitment to agreed service levels and

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quality of care to be provided (Karassavidou *et al*., 2011). From a professional point of view, quality can be defined as doing the right things for the right people at the right time and doing them right 1st time (Peikes *et al*., 2009). The accountability for quality is the responsibility of the Chief Executive to deliver on quality, thereby putting him/her at risk of severe penalties including imprisonment for failure to deliver (Jha and Epstein, 2010). It was assumed that appropriate quality would result from the provision of an infrastructure and the training and education of staff (Sklar and Lee, 2010).

Clinical governance has for the 1st time, placed the quality of healthcare as a direct responsibility of the Chief Executive and therefore the board of all hospital, community providers and primary care units (general practitioners) (Freedman, 2002).

The government stated that health organizations would have a statutory duty to report on quality issues and quality of healthcare services and the clinical performance of individuals and teams would be accountable by statute. Previously, there had only been financial accountability (Fisher and Shortell, 2010).

Practicing clinicians need new clinical knowledge and skills to improve and monitor the quality of care they provide (McColl and Roland, 2000). This requires the collection and aggregation of information across practices to assess health needs, reduce inequalities and monitor the quality of care in comparison to agreed standards (Banzi *et al*., 2010).

Clinical governance leaders will have to coordinate the collation of information for practical purposes, such as assessing inequalities, needs assessment and national performance indicators. They will need to be able to learn from others in primary care and to be able to get research into practice by changing clinical behavior (Freedman, 2002).

Health care experts, policymakers, payers and consumers consider Health Information Technologies (HIT), such as electronic health records and computerized provider order entry to be critical to transforming the health care industry (Chaudhry *et al*., 2006). Also, information management is fundamental to health care delivery (Jamal *et al*., 2009). Given the fragmented nature of health care, the large volume of transactions in the system, the need to integrate new scientific evidence into practice and other complex information management activities, the limitations of paper-based information management are intuitively apparent (Doran *et al*., 2010).

While the benefits of health information technology are clear in theory, adapting new information systems to health care has proven difficult and rates of use have been limited (Ash *et al*., 2004). Most information technology applications have centered on administrative and financial transactions rather than on delivering clinical care (Chaudhry *et al*., 2006). The issue of clinical governance was introduced in 2010 in Iran and several workshops were held in hospitals about it. But, few studies were performed about the role of HIT and management in clinical governance in Iran. This study was conducted to investigate clinical staff's preferences towards the role of HIT and management in clinical governance.

MATERIALS AND METHODS

Subjects and settings: This descriptive study was conducted to identify clinical staff's priorities towards the roles of HIT and management in the implementation clinical governance in affiliated hospitals at Semnan University of Medical Sciences, Iran. The research was conducted during 2012.

Questionnaire: An anonymized, self-administered questionnaire was designed. First by reviewing clinical governance and HIT literatures, a question survey was developed. It was divided into 2 domains:

- Demographics, such as position, age, sex, education, work experience and clinical governance training
- Clinical staff's attitudes towards the role of HIT and management in clinical governance

In this study of the questionnaire, the study subjects were asked to prioritize their views. Then, the initial questionnaire for content validity was reviewed regarding the suitability, the accuracy and its relationship with clinical staff roles by a group of experts. Next, the questionnaire was rewritten and became more explicit based on experts' recommendations. Then, researchers piloted the questionnaire on 30 of clinical staff. Internal consistency expressed as Cronbach's alpha was 72.3%. Then, further revisions ensued and some statements were rephrased. Finally, the final version of the anonymous questionnaire was given to all clinical staff. Ethical approval was obtained from Semnan University of Medical Ethics Committee. Then, a cover letter describing the aims of the study was prepared. It explained that responding the survey implied consent to participate and assured participants that all responses would be kept confidential.

Data analysis: Some participants did not answer some questions of the questionnaire. As a result, the reported percentages are based on actual responses. SPSS version 16 was used to perform descriptive statistics to examine distributions of responses.

RESULTS AND DISCUSSION

The overall response rate for the questionnaire was about 64.5%. Total 258 of 400 questionnaires were returned and they were selected as sample. Most of them (69.5%) were nurses, 80.6% were female, 27.5% were between 25-30 years old, 74.4% had a bachelor degree, 42.4% had between 1-5 years work experiences and 71.7% had passed clinical governance courses (Table 1). About 3.6% selected the role of HIT as 1st and 2nd priority. The 60.2% selected it as 4th priority (Fig. 1). About 60.4% chose the role of management in clinical governance as 1st priority and 4.5% selected it as 4th priority (Fig. 2).

The findings showed few population considered the role of HIT in clinical governance as 1st priority. Probably these study subjects believed the one of the challenges clinical staff is the need for better information systems to support the new governance agenda. Karsh *et al.* (2010) found that healthcare organizations have been very good at deploying Information Technology (IT) systems to support a range of administrative and clinical tasks. There is no doubt that modern patient administration and clinical information systems offer improved functionality to support quality of care objectives but this is just part of the clinical governance equation (Davis *et al*., 2009).

Table 1: Clinical staff's demographic characteristics

Characteristics	N	%
Position		
Physician	23	8.9
Nurse	179	69.5
Allied health	35	13.7
Other	21	8.1
Sex		
Male	50	19.4
Female	208	80.6
Age (year)		
20-25	48	18.6
25-30	71	27.5
30-35	56	21.7
35-40	33	12.8
40-45	32	12.4
45-50	15	5.8
>50	3	1.2
Education		
Diploma	8	3.1
Technician	28	10.9
Bachelor	192	74.4
Master	8	3.1
Ph.D	22	8.5
Work experience (year)		
1-5	109	42.4
5-10	68	26.5
10-15	30	11.7
15-20	24	9.3
20-25	15	5.8
>25	11	4.3
The passing of clinical governance course		
Yes	185	71.7
No	73	28.3

Also, the findings showed few population considered the role of HIT in clinical governance as 2nd priority. Perhaps these study subjects believed that few organizations have succeeded to the point where they have access to a single information repository from where they can pull operational data as needed to support the new governance agenda. However, the last decade has seen many efforts to consolidate and modernize IT systems or integrate systems to improve access to healthcare information (Fichman *et al*., 2011).

The findings showed less than half of population considered the role of HIT in clinical governance as 3rd priority. Perhaps, they were unaware of the major effect of HIT on quality of care and its role in increasing adherence to guideline or protocol-based care. Several studies have examined the effects of HIT on enhancing preventive health care delivery (Dexter *et al*., 2004; Jamal *et al*., 2009) and have showed the capacity of HIT to improve quality of care through clinical

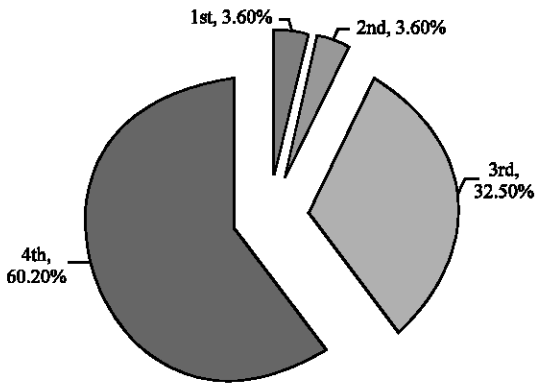

Fig. 1: Clinical staff's priorities towards the role of management in clinical governance

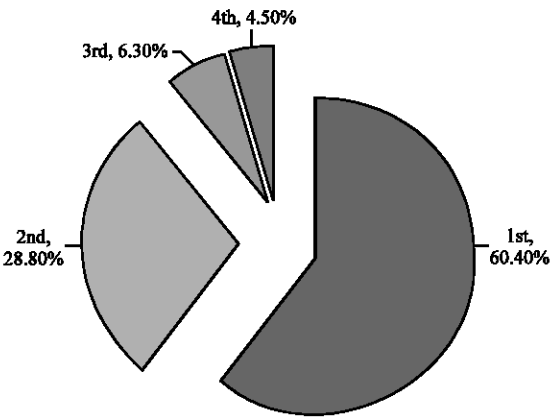

Fig. 2: Clinical staff's priorities towards the role of health information technology in clinical governance

monitoring based on large-scale screening and aggregation of data (Haider and Pronovost, 2011). Finally, studies have examined the role of HIT surveillance systems in identifying infectious disease outbreaks (Brownstein *et al*., 2010), as well its effects on utilization of care and provider time (Buntin *et al*., 2011) on quality and reduction in medication errors (Agrawal, 2009).

Also, the findings showed more than half of population considered the role of HIT in clinical governance as 4th priority. Perhaps, they were unaware that HIT provides the umbrella framework to describe the comprehensive management of health information across computerized systems and its secure exchange between consumers, providers, government and quality entities and insurers. Buntin *et al*. (2011) stated that broad and consistent utilization of HIT will improve health care quality or effectiveness increase health care productivity or efficiency prevent medical errors and increase health care accuracy and procedural correctness.

The findings showed more than half of population considered the role management in clinical governance as 1st priority. Perhaps, these study subjects believed that managers carry ultimate responsibility for the quality of services provided by health care settings. A designated senior clinician, ideally at board level is responsible for ensuring that systems of clinical governance are in place and are monitoring their continued effectiveness (White *et al*., 2010). Also perhaps, the study subjects believed that managers provide a comprehensive program of quality improvement clinical activities, such as full participation by all hospital doctors in clinical audit programs and continual professional development including clinical leadership. The findings showed less than half of population considered the role management in clinical governance as 2nd priority. Perhaps, they were unaware that the managers aim clear policies at managing risk, such as development of risk management strategy. The managers provide procedures for all professional groups to identify and remedy poor performance, such as critical incident reporting to ensure that adverse incidents are identified, openly investigated and lessons are learned (Spehar *et al*., 2012).

The findings of this study should be interpreted with caution because a self-administered questionnaire was used. Some possible problems, such as misunderstanding of questions and the possibility of answer bias affect the results. But, it seems that they had low effect on the results because the questionnaire was reliable and valid. Since, some of the study subjects did not answer some demographic questions of the questionnaire, the results can be influenced. However, these study findings were consistent with other studies.

CONCLUSION

It is concluded that most clinical staff believes that HIT has little role in clinical governance. It is necessary, clinical staff will be aware that HIT is in general increasingly viewed as the most promising tool for improving the overall quality, safety and efficiency of the health delivery system. Also, the most clinical staff focused on the role of management in clinical governance. In other words, they believed that the management is responsible for managing the clinical governance unit to lead, coordinate and support clinical excellence health care settings.

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