

Implementing clinical governance in Isfahan hospitals: Barriers and solutions, 2014

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ABSTRACT

Introduction: In the new approach, all health care providers have been obligated to maintain and improve the quality and have been accountable for it. One of the ways is the implementation of clinical governance (CG). More accurate understanding of its challenges can help to improve its performance. **Aims:** In this study, barriers of CG implementation are investigated from the perspective of the hospitals involved. Besides, some solutions are suggested based on stakeholders' opinions. **Materials and Methods:** This study used combined method (qualitative content analysis and questionnaire) in hospitals affiliated to Isfahan University of Medical Sciences in 2014. First, experts, and stakeholders talked about CG implementation obstacles in a semi-structured interview. Interviews were confirmed by the interviewee (double check). After analyzing the interviews using reduction coding the questionnaire was drawn up. The questionnaire "validity was confirmed by Cronbach's alpha (0/891)" and its reliability was obtained using experts confirmation. Data analyzing was performed using SPSS (18) software. **Results:** According to results staffing and management factors were the main obstacles. After them, were factors related to organizational culture, infrastructure elements, information, sociocultural and then process factors. The learning barriers were in final rank. Thirty-four solutions was proposed by experts and divided into subset of eight major barriers. Most solutions were offered on modifying processes and minimal solutions about modifying of organizational culture, sociocultural, and educational factors. **Conclusion:** Removing the obstacles, especially management and human resource factors can be effective by facilitating and accelerating CG. Furthermore, use of experts and stakeholders opinions can help to remove CG barriers.

Key words: Clinical governance, clinical governance team, hospital, Isfahan

INTRODUCTION

In the new approach, all health care providers have been obligated to maintain and improve the quality and have been

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accountable for it.^[1] That is why different countries have used various methods and tools for the improvement of health care quality to date,^[2] but their implementation has always proved challenging.^[3] Hereby, a set of efforts has led to a path for improving the quality, which has been called clinical governance (CG).^[4] This program was first introduced in the England health system as a state strategy in order to improve

Access this article online	
Quick Response Code:	Website: www.jehp.net
	DOI: 10.4103/2277-9531.184554

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This article may be cited as: Ferdosi M, Ziyari FB, Ollahi MN, Salmani AR, Niknam N. Implementing clinical governance in Isfahan hospitals: Barriers and solutions, 2014. *J Edu Health Promot* 2016;5:20.

clinical healthcare and a device to reach a responsible quality.^[2,5]

One of the definitions of CG services provided is:

"A framework in which the service providers are accountable for the permanent improvement of quality and by creating an environment in which excellence in clinical services flourishes, they preserve the standards of excellence of service."^[6]

In other words, CG is a systematic approach to improve the services provided to the patient and provides a framework based on which, healthcare organizations are accountable for regular improvement of their services quality by improving quality standards and creating an environment to provide high-quality services.

Several studies and experiences of advanced countries suggest that by implementing the CG program, especially affairs such as patients and staff danger management has led to the improvement of services quality and significantly changed accountability and patient satisfaction.

Different models for defining CG can be found in the literature. One of the models that have been used in medicine in England is the 7 column or the 7-categories model. The categories are as follows:^[2,3]

1. Patient and public involvement
2. Risk management
3. Use of information
4. Clinical effectiveness
5. Education and training
6. Staff and staff management
7. Clinical audit.

This program due to its comprehensiveness was also implemented in Iran as a modern hospital management system recommended by Ministry of Health and Medical Education, and it has been established for a few years.^[2,3]

In England and other developed countries, it took half a century to establish the suitable infrastructure for CG and meanwhile there have been obstacles and challenges for the planners and executors who solved them by doing some studies. In our country is also the fact that we are still in its infancy, What has not yet been shown is that CG in Iran has improved the quality of care because it is still too early to tell and the full deployment of all categories and to extend slowly and hurdles faced by genuine CG. Therefore, it is quite clear that there are obstacles and difficulties impeding the implementation and accelerating the development of CG.

Evaluation the type of establishment and performance the quality improvement programs and facilitators is important goal of health systems program developed countries.^[7,8] Evaluating the quality of services can help us to reform resource allocation and useful interventions.^[9] Furthermore, health

care quality assessment enhances the standard of care through health care priority setting, ethical standards improvement and appropriate utilization of resources.^[9] Identifying barriers and solutions will help managers and stakeholders to do effectively Otherwise, CG would become an unreliable approach to quality assurance if we do not find how and when it works in a desirable manner.^[10]

In a number previous researches in Iran, CG implementation in universities and in two cases obstacles and challenges in CG implementing have been studied. Staff views or attitudes of human resources in the implementation of CG in two studies have been investigated. In one study, strategies to increase the physicians' participation in implementing this program are investigated. Management in hospitals before and after the implementation of CG is another thing that has been researched.

Only in one study has been a comparative study about barriers and facilitators of CG in hospitals around the world and hospitals in Iran. As a result the obstacles in Iran and other countries are almost the same.

In other studies, although implementation of the project been investigated in view of employees overall but none of them reviewed the team members involved in the CG implementation that are closely touch the obstacles. In addition, most studies have been done in Tehran, Qazvin, Mashhad, Bojnurd and Maragheh. And Isfahan as one of the largest cities in the country and the pioneer in quality improvement has been neglected.

Generally, in most previous studies, management weaknesses included the lack of a clear leadership, lack of manager's support and commitment, low clinical staff participation in management was the barriers that have been found.

Cases wherein some previous studies infrastructural barriers include lack of clear guidelines and policies, the need for support for implementation, lack of clear improved and comfort processes, failure to accept the patient as a partner in the system known as challenge. On the other hand, lack of participation of employees, staff shortage and resistance on the run and the need for stimulating was emphasized.

Results of previous studies suggest an organizational culture that consists of several elements also has been effective in this program. In little number of studies educational barriers, lack of understanding of basic concepts, lack of time and personnel, physicians, financial barriers. The lack of appropriate and reliable information also not as high barriers, but as more faintly been mentioned.

More foreign studies were done In the England, only one of them was conducted in Australia. It is clear that because England is the cradle of creation and completion of CG further research has been done in this regard.

It can be said that results of studies on the obstacles and challenges ahead in the program are many similarities with the results of foreign studies but still a lot of unknowns about the establishment of CG were ahead of administrators and the need for further research shows.

The authors of this study want to find barriers and facilitators in implementing the program from the perspective of the service to provide recommendations. By knowing these items we can prepare health organizational settings for appropriate implementation of CG and as a result we hope to achieve major improvements in patient care quality.

MATERIALS AND METHODS

This study used combined method (qualitative content analysis and questionnaire) which has been done in hospitals affiliated to Isfahan University of Medical Sciences in 2014.

Data collection method in research background was the literature review, followed by an interview and then questionnaire.

In quality part of this study, with purposeful sampling method members of health Deputy CG office and some hospitals CG team members were selected according to their scientific and executive information and experience and under health professors guidance.

Then sampling continued in snowball method. Participants can introduce each of the next options for participation.

After 11 interviews with participants and their analysis when with last two interviews there was no new information and data collected repeat the previous data, was concluded that data saturation is reached, and the sampling was terminated.

To allow a better exchange of ideas and information, interviews were conducted face to face in the workplace. Semi-structured interviews lasted for 45 min to 1 h and the whole interview was recorded. Fundamental questions were about “The experiences of the obstacles and challenges of the program” and “strategies to facilitate the CG implementation at hospitals.” To ensure the data validity, interviews text were confirmed by the interviewee (double check). Optional participation in the interview, the confidentiality of the names and information as the ethical aspects of the study were considered.

After analyzing the interviews using reduction coding the questionnaire was drawn up. The pretest questionnaire “validity was confirmed by Cronbach’s alpha (0/867) and then (0/891) and its reliability was obtained using experts confirmation.” Data analyzing was performed using SPSS V 19.0 [IBM Corp.: Armonk, NY].

Shortly after the interviews, each of them was studied several times for data analysis and their results were summarized

and analyzed by content analysis method and organized as questionnaire. The questionnaires investigate, resolve defects and adjusted with health management professors comments. The questionnaire “validity was confirmed by Cronbach’s alpha (0/891)” and its reliability was obtained using experts confirmation. Data analyzing was performed using SPSS software.

The questionnaire consisted of eight domains and 44 questions based on a Likert scale of 5 choices too high, high, medium, low and very low split. 5 questions infrastructure, process 6 questions, sociocultural, 5 questions, a team of 6 questions, human resources 4 questions, 5 questions on organizational culture, statistics and data 6 questions, and education 6 questions.

In the second phase of this study, the questionnaires were distributed among the CG team involved and in all Medical Universities in Esfahan (12 hospitals). Of the 95 questionnaires distributed number 84 was completed and was returned to the researchers. Finally, the data were analyzed using SPSS software.^[11]

Since the variables in this research are ratings, therefore, mean should be used from the main criteria instead of average:

- From 1 to 1.8 represents the option high
- From 1.8 to 2.6 represents the option great
- From 2.6 to 3.4 represents the option average
- From 3.4 to 4.2 represents the option low
- From 4.2 to 5 represent the option very low.

RESULTS

The first phase results

Barriers expressed in the interviews were divided into eight subgroup (infrastructure, sociocultural, management, human resources, organizational culture, statistics and data and education).

The second phase results

The results of the questionnaires analysis. In order to determine the intensity of barriers showed that the obstacles related to human resources and management factors have had the largest effect in the implementation of the project so that it was selected too high effect for it.

In the next rankings were factors related to organizational culture, infrastructure factors, statistics, and information, sociocultural and process factors with high effect.

Moreover, the obstacles associated with training were in last place and the respondents selected “average” effect for them [Tables 1 and 2].

Results about solutions

To determine solutions to facilitate the CG implementation in hospitals, interviewees in the first phase of the study were

Table 1: Median of scores and the achieved rate for each category

Category	Infrastructure	Process	Sociocultural	Management	Human resource	Organizational culture	Statistics and data	Education
Median of scores	1.9	2.5	2.3	1.7	1.6	1.8	2.1	2.8
Impeding effect size	High	High	High	Very high	Very high	High	High	Average

Table 2: The median score obtained for questions

Category	Question number	Questions	Median score	Effect size
Infrastructures	1	Lack of determining CG position in health system	1.71	Very high
	2	Lack of local standards in Iran	1.73	Very high
	3	Lack of organization chart to implement CG	1.89	high
	4	Variety of standards and lack of their cohesion	2.43	High
	5	Lack of CG principles in basic education of doctors	1.58	Very high
Process	6	Lack of stability in ministry programs	1.671	Very high
	7	Incomplete support of the ministry and department (notification of indicators, notification of regulations, providing guidelines ...)	1.685	Very high
	8	Changing CG festival samples each year	2.932	Average
	9	Too many weaknesses in performance evaluation and performance-based incentives for active centers in the implementation of CG	1.795	Very high
	10	Unclear employment process (selection, appointment, job description and evaluation)	2.261	High
	11	Lack of providing supply arrangement strategies and CG festival for hospitals	1.973	High
Sociocultural	12	Lack of predicting cooperation of assemblies and NGOs in proceeding the program	2.653	Average
	13	Poor acceptance of the patient as a part of treatment systems	1.863	High
	14	Unclear method of responding to people and society	2.179	High
	15	Poor familiarity of people with their right and demanding them	2.496	High
	16	Level of people knowledge and information	2.384	High
Management	17	Management instability	1.265	Very high
	18	Lack of management support	2.17	High
	19	Low management authority (such as full authority over employees, motivating and ...)	2.216	High
	20	Poor interaction of management and employees	2.565	High
	21	Lack of management commitment in all levels to implement quality improvement programs	1.681	Very high
	22	Passing quality responsibility from hospital managements to other levels	1.504	Very high
Human resource	23	Lack of staff and high amount of work	1.861	High
	24	Lack of performance evaluation and performance-based promotion and poor motivation of doctors and staff	1.69	Very high
	25	Lack of staff participation and cooperation and especially doctors	1.35	Very high
	26	Lack of cross-field team with struggle of doctor, nurse and management expert to manage patient risk and safety	1.781	Very high
Organizational culture	27	Poor organizational motivation and devotion against change and resisting quality improvement programs	1.616	Very high
	28	Poor treatment with clients in hospitals	1.984	High
	29	Poor acceptance and flexibility towards patients criticisms and opinions	2.266	High
	30	Poor implementation of safety tips (lack of confidence in the area of risk management and assessment and reporting errors)	1.811	High
	31	Lack of commitment to implementation of strategic and operational program	1.601	Very high
Statistics and data	32	Low accuracy and credit of data	2.367	High
	33	Absence of all standards in the software	1.903	High
	34	Absence of detailed record of all the divisions and lack of information on the methods of storing data	2.082	High

Contd...

Table 2: Contd...

Category	Question number	Questions	Median score	Effect size
Education	35	Lack of time to insert data and its analysis	1.808	High
	36	Incomplete participation of data mining unit	2.138	High
	37	Large enough loss of data due to partially completed forms and checklists	2.359	high
	38	Lack of suitable scientific package for patient education	3.141	Average
	39	Lack of space, force, and budget for staff education	2.273	Average
	40	Poor familiarity of managers with the areas of CG	1.722	Very high
	42	Low knowledge and training of staff (lack of clear understanding of the basic concepts of CG, the conceptual and operational aspects)	1.274	Very high
	43	Too many managers lack the knowledge and skills to use and make decisions based on data	1.589	Very high
	44	Too difficult, and time consuming error and risk management procedures	2.382	High

NGOs=Nongovernmental organizations, CG=Clinical governance

asked to addition the opinions expressed in relation TO Barriers and challenges of the program, also offer the desired solutions.

Expressed solutions listed in Table 3.

DISCUSSION

Infrastructure factors were recognized as a major obstacle in CG implementation.

For questions related to infrastructure category, the respondents' considered lack of CG principles such as evidence-based medicine, clinical guidelines and audit program in basic medical training as a greatest effect, by UK national audit report also has announced that clarifying the requirements of CG is a need for physicians.^[12]

After this was the unclear CG status in the health system structure and un-native standards for Iran.

In previous studies in Iran infrastructural constraints, in this case, are discussed. The need to establish he necessary structure in the health system has also been confirmed in Kokabi *et al.* and Chegini study.^[13,14]

Hogan *et al.* also his review believes that existence the clear structures and procedures to support CG leads to facilitate the implementation the project.^[15]

Phillips *et al.* have also considered using local clinical standards and localization of standards effective in removing the obstacles.^[16]

Lack of organizational charts and several standards and their incoherence in respondents' opinion are the next factors and had high effects.

Roland *et al.* considered the rapid change of society and the unbalanced development of infrastructures to support, as the

challenges facing CG^[17] and Kelson believes that clarifying guidelines and policies, and establishing appropriate structure in the upstream organization is necessary in the successful implementation of CG.^[18,19]

Among process factors, the respondents considered lack of stability in ministry programs, incomplete leading and support health ministry and department and then poor performance evaluation and performance-based promotion to have very high effect on impeding the project implementation.

After these factors, were failure to provide strategies to coordination the accreditation and CG festival and unclear employment process in the next level and were obstacles with high effect.

Finally, changing the evidence for CG festival every year stood in the end and had an average effect.

In studies in Iran and other countries in general the role of improving processes in implementing quality improvement programs and CG has been mentioned but detailed items such as in this study were not found. Only in the UK national audit office report, the need for the necessary support and help for implementation and lack of a clear leadership by upstream organizations has been considered as the second important obstacle.^[20] The results of this research match the findings of Hadizade and Adibi and Kokabi's study, which consider improvement and clarifying the processes necessary for the effective implementation of the program.^[11,13]

In sociocultural obstacles, poor knowledge of people about their rights and asking for it, level of people literacy and information and unclear responding method to people and society and then weakness in acceptance patients as a partner in health systems are known barriers.

The results of this study also confirms this and emphasizes the acceptance of patient as a partner in healthcare systems and developing the culture of welcoming and

Table 3: Offered solutions

Row	Axes	Offered solutions
1	Infrastructural factors	Establishment a Committee at Ministerial level Entrust evaluation and accreditation in to independent NGOs Inclusion Tier organization related to CG in Ministry Health Organization chart and consequently deputies and hospitals and create a formal job description for this persons Harmonization of CG standards with Native Iranian Protocols, guidelines and standards Incorporating principles CG in the training of physicians and paramedical staff Design a comprehensive error management system in the country
2	Processes	Improving the physicians and staff evaluation process and inclusion CG principles in their evaluation CG festival instances unchanged for at least 5 years Anticipate benefits and funding for hospitals that earn points at the festival Provide solutions for coordinating CG and accreditation programs (extraction the uniform standards of both programs) by the Ministry of Health and Medical Education Long-term and constant strategic planning in health ministry that can be applied Full the upstream guidance and support such as ministries and health deputy (right information about the indicators, regulations, etc.) Develop guidelines in a specialized committee in the ministry given the legal and financial barriers and then judge approved a legal reference and continuing legal support for their implementation
3	Sociocultural	Formation Patient’s Rights Associations and Legal Advice Centers (in health deputy) and anticipated legal cases with the participation of lawyers Develop clear standards and indicators for interact with patients and society In accordance with the needs of society and culture
4	Management	Establish the necessary infrastructure to support the program by hospitals managers Create a specific procedure for the selection competent and knowledgeable managers and more stability in the management Senior managers training and efforts to create believing quality and accountability and take responsibility for quality Forecasting necessary budgets in hospital budget row for quality improvement programs
5	Human resources	Giving sufficient authority and financial resources to hospital managers In order to motivate and increase the participation of personnel, particularly physicians Overcome the shortage of personnel and modify business processes to overcome the lack of time Employment for CG units by creating its row in the organization chart in order to create an interdisciplinary team with physicians, nurses and management experts
6	Organizational culture	Creation fields for involving the clinical staff in the management, strategic planning and hospital goals Provide a clear plan for building trust and promoting the safety culture and error reporting
7	Statistics	Purchase the new software for hospitals that can easily extract the required indexes Set up electronic medical records in hospitals
8	Education	Train managers to make decisions based on knowledge and information Continuing education programs for managers and employees to deepen their knowledge and familiarity with the basic concepts of CG Providing space, power and authority for personnel training Preparation the appropriate package for patient education by the health ministry

CG=Clinical governance, NGOs=Nongovernmental organizations

flexibility toward patients comments and criticisms and transfer the required information to patients and attracting their satisfaction to achieve effective implementation CG.^[12,13,20]

Lack of foresight associations and nongovernmental organizations (NGOs) cooperation was the next obstacle in the program.

In this regard, Afshari came to the conclusion that the existence of related associations and NGOs and their participation for support is an important issue in the implementation of this program.^[21]

In another study, Kelson found that clear explanations of policies and health system Programs for the community can Help attract the people participation.^[18,19]

Marshall considers the commitment to public accountability as the most important cultural characteristics required for the implementation of CG.^[22]

Among the management factors (with a score of 1.7 and very high effect) instability of administrations, lack of management commitment and assigning the qualitative responsibilities from hospital managers to other levels were the most important obstacles.

Comparing other studies with the results of this study emphasizes the significant effect of management in implementing and creating challenges when facing obstacles related to management so that Takbiri *et al.* in his study has mentioned the important role of management in establishing CG.^[23] Also in the UK national audit office report and Scally and Donaldson study.^[6,12]

The lack of a clear and committed management and requires the cooperation of many professions have been considered as an obstacle for the CG implementation.

Barriers, lack of management support, weakness authorities and weaknesses in management interaction with staff were the next items with very high effect that these findings namely the effect.

Of lack of clinical team interaction and participation with management in strategic planning and executive activities have also been confirmed in Afshari's study.^[21]

The results of Hogan *et al.* study also consider the low participation of clinical staff and clinical management as the major factors of low staff contribution in CG.^[15]

In human resources barriers that was the second main obstacle the lack of performance evaluation and performance-based promotion and lack of motivating the physicians and personnel and lack of a cross-field team for risk and error management has had very high effect. In the next rank was personnel shortages and high volume of work.

UK national audit office report and results of Scally and Donaldson confirm this fact.^[6,12]

Generally in most previous studies, it has been emphasized at the fundamental role of human resources and need to their cooperation.^[24-26]

Hogan *et al.* also mention that lack of time in all professional groups, which can exist because of lack of personnel and too much work was one of the challenges of program implementation.^[15]

Barriers related to organizational culture was an important obstacle. It is also suggested that success in implementing CG program greatly needs infrastructure such as creating the hospital culture. In the present study, according to the experts opinion, lack of commitment to implement strategic program and low motivation and organizational devotion against change and resisting the implementation of quality improvement programs are almost at the same level and have a very high effect in impeding the project.^[23]

It was considered that, the development and implementation of strategic plans to have a mutual effect with the

implementation of CG. Azari *et al* suggests a clinical commitment to change, a sense of ownership of the change and supporting the enactment of the conditions necessary for optimal CG establishment.^[26,27]

Weaknesses in the implementation of safety culture (lack of confidence in risk management and assessment and reporting errors) were in the next ranking, which matches the results of Zarei *et al.* and shows a need to attract more trust in different categories of CG especially in the realm of error analysis and risk management.^[28]

Another obstacle studied was the factors related to statistics and information was known to have a high impact. Although these were of the most important obstacles for the implementation of all quality improvement programs and accurate information is necessary for planning and implementing CG but in the studies done in Iran this fact has been discussed very briefly. In the present study also, lack of managers' knowledge and skill in decision making according to the information are an important factor. The results of this study match those of Mirzaei and Rashidiyan since they have mentioned lack of enough attention of hospital managers and authorities to data gathering and their role and importance and the need for fundamental actions in universities and in the country to create suitable information about quality.^[29,30]

Chegini and Parnian in their study consider internal and external data gathering as effective strategies to facilitate the CG implementation.^[12] And in a study by Phillips in Australia demonstrated that the use of computerized medical records will help to overcome the obstacles to CG establishment.^[16]

Education-related obstacles show an average effect. the respondents considered lack of knowledge and staff training (lack of a clear understanding of fundamental concepts of CG, conceptual and executive aspects) to have the greatest effect and after were the lack of managers knowledge and skill in using and decision making according to the information and low familiarity of managers with CG. In proportion to the results of this study, Afshari considers education necessary to create good understanding in this field from the highest managerial levels in medical universities to the responsible executive managers.^[21]

Finally, lack of space, power, and reliability for personnel training and lack of appropriate training packages for patients were with moderate impact. The results of Shakeshaft study in the UK, including inadequate funding and insufficient knowledge and skills as major obstacles to implement CG confirm the results of this study.^[31]

In Iran, it is considered that, education is one of the most important strategies to increase physicians' participations in implementing CG principles.^[32] In the UK national audit office report also the pharmacists considered the lack of time to train their employees as the first obstacle for CG implementation. According to the researchers, these findings

are similar to earlier studies that have been done on other NHS staff.^[12]

CONCLUSION

Generally, the findings of this study suggested that most of the CG team of hospitals consider management and human resource as the most important obstacles for the implementation of this program. Therefore, it can be concluded that considering the important role of management in implementing CG, it is necessary that the healthcare department makes efforts in stabilizing hospital managements and selecting committed managers who personally take the responsibility of quality and motivate all executers, doctors, and staff.

In addition, since the success and failure of every quality improvement and CG program in an organization depends on its human resources performance, the staff and doctors can be motivated to cooperate by giving managers the necessary authority to employ personnel evaluate their performance and give performance-based promotions. Also, one of the most important strategies in succeeding the implementation of CG program is paying attention to the staff and their satisfaction because once they are satisfied they can help the implementation of CG program to be effective by making the right changes in their behavior.

Reforming managerial procedures and selecting qualified managers can create the sense of effecting treatment quality in staff by reforming work procedures and can stop the resistance to change and increase their cooperation. Also another factor which can increase motivation and organizational devotion against change is reforming organizational culture, especially in attracting trust in risk and error management and reporting and creating commitment to implement strategic and operational program.

The results of this study showed that statistics and information factors were one of the challenges of the program implementing. However, unfortunately in our hospitals accuracy of recording, storage and use of information and data has been neglected. Perhaps factors such as having a single computer at each section, lack of access to internet, lack of enough skill to search and use data, too much work and lack of enough time may be the reasons of this problem.

Because access to accurate, complete and timely information is the need of clinicians and managers, patients and the community seems that Increasing the number of hardware and software hospital systems and upgrading them, resolve personnel shortages, which prolongs data registration time, training personnel to accurately record and report the data storage methods and the creation of the data can facilitate implementation.

Based on this study and other studies discussed, it can be concluded that establishing such a comprehensive program

in our country without foundations, firm position and local standards have slowed it and caused many problems. Therefore, it is recommended that health department authorities determine the position of CG in the health system, effectively support, localizing the standards, clearly determine guidelines and policies and inserting CG principles in the basic trainings of doctors and all treatment team to help to facilitate the implementation of this program.

Suggestions

From the results of the strategies described in this study and other similar studies, the following recommendations to address the obstacles and facilitate the implementation of CG are presented:

1. Facilitating CG staff participation in management and building relationships with the hospital aims and strategies
2. Management support and structure to support the implementation
3. Training, motivating and facilitating the active participation of personnel, particularly physicians, to increase
4. Providing space, power, and reliability for personnel training and the provision of appropriate scientific package for patient education
5. Using hardware and software modem for quick and easy record medical data, personnel training and use of information for research
6. Training managers to develop knowledge and skills and make decisions based on the information
7. Continuing education programs for managers and employees to deepen their knowledge and familiarity with the basic concepts of CG
8. Providing an interdisciplinary team of physicians, nurses, and conflict management expert
9. Addressing the shortage of force and modify business processes in order to overcome the lack of time.

It is hoped officials from the Ministry of Health and Medical Education and hospital administrators to consider the findings and approaches taken effective steps taken to overcome the obstacles to the implementation of the program.

Acknowledgments

Hereby we thank the cooperation of all clinical governance staff of Esfahan medical university who helped the researcher to do this study.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

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