

BARRIERS TO IMPLEMENTING CLINICAL GOVERNANCE AS PERCEIVED BY HEALTH CARE PROVIDERS

Mohamed Mostafa Mohamed Bassiony,

Department of Nursing Administration, Faculty of Nursing, Alexandria University

Fatma Mostafa Baddar,

Department of Nursing Administration, Faculty of Nursing, Alexandria University

Ahmed Abd Elwahab El.sayed

Department of Nursing Administration, Faculty of Nursing, Alexandria University

Abstract

Background: Clinical governance (CG) is a set of practices to reduce risks for patients and hospital staff. These practices include early detection of serious complications, investigation of patient complaints, application of the best available evidence when making clinical decisions, self-evaluation of performance, use of practical techniques to alter service providers' behavior, and ongoing evaluation of programs for service providers' job advancement. **Aim:** *the study aimed to determine the Barriers to Implementing Clinical Governance from the Perspective of Health Care Providers.* **Settings:** *The study was conducted in two hospitals affiliated to MOHP: El-Gomhoria Hospital and Gamal Hamada.* **Subjects:** *All healthcare providers (N= 389) available at the time of data collection in the previous study settings with exclusion criteria of less than six months.* **Tool:** *Barriers of Clinical Governance Questionnaire to assess barriers to implementing clinical governance in the study settings.* **Results:** *The highest barriers to implementation of clinical governance as perceived by healthcare providers were related to infrastructure 85.64%, followed by human resources 73.95%. Also, there was a significant difference between previous attendance of workshops regarding clinical governance and healthcare providers' perception to the barriers of CG implementation ($p = 0.004$);* **Conclusion:** *Interventions related to management, human resources, organizational culture, and education are crucial to successfully implementing clinical governance. Addressing these areas in the clinical governance plan is crucial for finding significant solutions* **Recommendations:** *Develop comprehensive training programs on the principles and practices of clinical governance and provide ongoing professional development opportunities for healthcare providers to enhance their understanding and implementation of clinical governance.*

Keywords: Governance, clinical governance, hospital, barriers, quality of care, healthcare providers
Received 23 May 2024; Accepted 30 May 2024; Published December 2024

Introduction

The ultimate goal of contemporary healthcare organizations is to provide high-quality accessible services to the patients. This is challenged by increased patient demand for quality care, the lack of resources, raised healthcare costs, pressure from the global economy inflation, and the high prevalence of chronic and infectious diseases requiring long-term care. These challenges create an urgency for radical solutions to buffer these drawbacks. (Antony et al., 2019). Clinical governance (CG) is today's most widely employed strategy to resolve healthcare delivery system issues worldwide (Stahl et al., 2022).

It is important to note that clinical governance is emphasized as a fundamental pillar in the Egyptian General Authority for Health Accreditation and Regulation's Handbook of Hospital Standards (GAHAR). Moreover, GAHAR is obligated that each healthcare facility incorporates clinical governance ideas as part of its fundamental level certification standards to be eligible for the new universal health insurance schemes (General Authority for Health Accreditation and Regulation [GAHAR], 2021).

The Department of Health, National Health Service (NHS) (2022) defined clinical governance as the system through which organizations are accountable for

continuously improving the quality of their services and safeguarding high standards of care by creating an environment where clinical excellence will flourish. This definition is intended to embody three critical attributes of clinical governance: recognizable high standards of care, transparent responsibility and accountability for those standards, and a constant dynamic of improvement (Lucas et al., 2022).

It is commonly acknowledged that clinical governance (CG) offers a distinctive and all-encompassing technique for integrating all regional initiatives into a single, cohesive program for ongoing quality improvement. It motivates all employees to work toward enhancing the standard and safety of patient care (Abd El Fatah et al., 2019). Clinical governance offers the chance to comprehend and learn how to create the essential elements required to facilitate the delivery of high-quality care, including strong leadership, a culture of no blame, questioning, and learning, and an environment in which staff members are valued and supported as they develop partnerships with patients (Fardazar et al., 2015).

Clinical governance is a set of practices to reduce risks for patients and hospital staff. These practices include early detection of serious complications, investigation of patient complaints, application of the best available evidence when making clinical decisions, self-evaluation of performance, use of practical techniques to alter service providers' behavior, and ongoing evaluation of programs for healthcare providers' job advancement (Askari et al., 2017).

Clinical governance articulated around seven pillars namely, patient and public involvement, clinical audit, risk management, education, training, continuing professional development, information management, and staff management must always be kept in mind. These pillars could be the foundation for developing clinical governance in any hospital. These pillars have implementation

strategies and performance indicators that guide the monitoring and regulating process (Patel & Jenkyn, 2021).

Despite the importance of clinical governance in improving all aspects of healthcare, its implementation has numerous barriers in current healthcare environments. Lucas et al. (2022) emphasized that the main barriers to the implementation of clinical governance are a lack of management support, poor infrastructure in healthcare settings, a lack of clinical pathways, a lack of harmony among healthcare teams, a lack of safety culture, and a lack of commitment on the part of healthcare teams (Levay et al., 2022).

Several studies have evaluated the barriers to clinical governance implementation in various hospital settings and indicated suggestions for improvement (Ferdosi et al., 2016). In a study done in Iran, the barriers to implementing clinical governance were divided into eight categories including infrastructural obstacles, sociocultural obstacles, clinical process obstacles, organizational culture obstacles, management obstacles, monitoring and data management obstacles, and educational obstacles. The primary Barriers to implementing clinical governance as outlined in the study conducted by Behzadifar et al. (2019) encompass management resistance, inadequate commitment to quality improvement efforts, a shortage of staff members open to change, limited financial resources and support, educational hurdles, and a lack of comprehension regarding the principles and practices of clinical governance.

Clinical governance implementation in Egyptian healthcare organizations is still quite nebulous, and its future could be much better. There are numerous barriers to the implementation of the clinical governance system in Egypt, including unclear accountability systems, a lack of healthcare providers, unequal distribution of those who are available, immigration and brain drain of trained healthcare

professionals to the Gulf and other countries, a lack of a just culture, a lack of patient safety guidelines, low of transparency, inadequate infrastructure, and discord between various health sectors (Abd El Fatah et al., 2019).

There is still disagreement on the fundamental causes of the inadequate implementation of clinical governance in the Egyptian healthcare system. Few studies have been conducted in the Egyptian setting to identify barriers and potential solutions for implementing clinical governance in the Egyptian healthcare system. This study aimed to identify the main barriers to implementing and adopting clinical governance in the hospitals of the Ministry of Health and Population. The results of this study can provide recommendations and solutions to enhance the Egyptian healthcare system through the implementation of clinical governance systems. Furthermore, its use would represent a major step in promoting accountability and high-quality patient care among healthcare providers in Egypt.

Aims of the Study

This study aimed to determine the barriers to implementing Clinical Governance as perceived by Health Care Providers.

Research questions

What are the barriers to implementing clinical governance as perceived by Health Care Providers?

Materials and Method

Materials

Design: A descriptive exploratory research design was used to carry out this study.

Settings: This study was conducted in two hospitals affiliated with MOHP, namely: El-Gomhoria Hospital, equipped with 153 beds, and Gamal Hamada, equipped with 78 beds the two hospitals are general tertiary care hospitals and were selected in this study because they are the first two hospitals that take the initiatives of

GAHAR and already started serious steps to achieve the requirements of accreditation developed by GAHAR.

Subjects:

A total of 389 healthcare providers were recruited from El-Gomhoria Hospital and Gamal Hamada Hospital. This included physicians, nurses, pharmacists, and technicians from each hospital. Healthcare providers with less than six months of experience in the study settings were excluded from the data collection.

Tool:

The barriers of Clinical Governance Questionnaire was adopted by Ferdosi et al. (2016) to assess the barriers to Implementing Clinical Governance from the Perspective of Health Care Providers in the study settings. It consists of 43 items grouped under eight dimensions as follows: infrastructure (n=5 items), process (n=6 items), sociocultural (n=5 items), management (n= 6 items), human resources (n=4 items), organizational culture (n=5 items), statistics and data (n=6 items), and education (n=6 items). This tool has a high reliability of Cronbach's Alpha Coefficient was 0.891.

Responses were measured on a five-point Likert scale ranging from 1= very low, 2= low, 3= average, 4= high, and 5= too high. One open-ended question was added to ask healthcare providers about their opinions about other possible barriers to clinical governance implementation in the study settings. The overall scoring system ranged from (43-215) where; the scoring ranging from (43 to 100) represents minimal perceived barriers to Clinical Governance implementation, and the scoring from (101 to less than 158) illustrates moderate perceived barriers to Clinical Governance implementation, and the scoring range from (158-215) represents maximum perceived barriers of Clinical Governance implementation.

In addition, a sheet was developed by the researcher to assess the personal and work-

related data of health care providers such as age, gender, years of experience, previous attendance of workshops regarding GAHAR requirements, previous attendance of workshops concerning clinical governance, and previous working in clinical settings apply clinical governance principles.

Method

Approval of the Research Ethics Committee (REC) of the Faculty of Nursing was obtained. Official approval to conduct the study was obtained from the study settings after explaining the aim of the study (permission no.2022-7-46, IRB00013620 (9/19/2025)). An informed consent was obtained from the healthcare providers. The study tool was translated into Arabic, and back-to-back translation (Arabic to English) was done. The study tool was tested for face and content validity by 5 experts in the field of the study. The necessary modifications were done accordingly. A pilot study was carried out on 10% of the study sample to check and ensure the clarity, applicability, and feasibility of the tools and identify obstacles and problems that may be encountered during data collection, determine the time needed to complete the questionnaire, and no modifications were done. The reliability of the tool was tested using Cronbach's Alpha test. The tool verified reliability where $\alpha = 0.75$. Data was collected by the researchers during the period from 1 February 2023 to 30 April 2023.

Data collection was conducted by the researchers and the questionnaires were hand-delivered to the study subjects at the study settings. The researchers met with each one of healthcare providers to explain the aim of the study and invited her/him to participate in study.

Ethical considerations:

Written informed consent from the healthcare providers was obtained after providing an appropriate explanation about the aim of the study Confidentiality of data was obtained. The anonymity of the study

subject was kept. Subjects participated in the study on a voluntary base and had the right to withdraw at any time from the study.

Statistical Analysis

The collected data were organized, tabulated, and statically analyzed using the Statistical Package for Social Studies (SPSS) Version 23.0. data were described using numbers and percentages. mean \pm standard deviation and mean score percentage. The Independent Samples Test was used to measure the significant difference between the averages of two independent samples. One Way ANOVA: was used to determine whether there were any statistically significant differences between the means of three or more independent groups. Finally, analysis and interpretation of data were conducted. P-values of 0.05 or less were considered statistically significant.

Results

Table 1 shows that the overall perceived level of healthcare providers for barriers to clinical governance implementation was moderate ($F=3.632$, $p=0.173$). The majority of healthcare providers, 94.67%, perceived infrastructure barriers as the most significant barrier to clinical governance implementation. Specifically, 96.7% of nurses perceived this as a significant barrier, compared to 88% of physicians and pharmacists, and 80% of technicians. Following this, the barrier related to human resources was also significant, with 69.4% of nurses, 64% of physicians, 76% of pharmacists, and 70% of technicians perceiving it as a maximum barrier. While the sociocultural-related barrier was perceived as a minimal barrier by healthcare providers.

Table 2 shows the mean scores of clinical governance implementation barriers as perceived by healthcare providers by domains. The overall Barriers to Clinical Governance implementation were moderately perceived with a mean

score of 139.49 ± 15.7 and a mean percent score of 64.91%. In specific; this table shows that the highest barriers towards implementation of clinical governance as perceived by healthcare providers was related to infrastructure with a mean score of 21.42 ± 1.72 and a mean percent score of 85.64%, followed by human resources (14.79 ± 3.49 and a mean percent score of 73.95%, Concerning infrastructure related barriers; the most significant barriers was lack of determining clinical governance in healthcare system (4.89 ± 0.316) and a mean percent score of 97.80% while the lowest perceived barrier was lack of local standards in Egypt for application of Clinical governance (3.25 ± 0.501) and a mean percent score of 65.00%. Regarding human resources barriers, the lack of staff and high amount of work was 4.38 ± 1.065 and a mean percent score of 87.60%, followed by the Lack of qualified and well-trained teams for healthcare providers for loading clinical governance programs were perceived as the most significant barriers of human resources-related barriers. On the other hand, the lack of justice in performance evaluation and performance-based promotion was the lowest perceived barrier by healthcare providers with a mean score of (2.68 ± 1.291) and a mean percent score of 53.60%. As regards process-related barriers, it was perceived as moderate barriers to implementing CG in the study settings by healthcare providers with a mean score of (21.31 ± 2.23) and a mean percent score of 71.07%. “The lack of enough resources for CG implementation” was perceived by the mean score of 4.55 ± 0.916 and mean percent score of 91.00% as the most process-related barrier by healthcare providers, while the process-related barrier of “Unclear employment process (selection, appointment, job description, and evaluation).was stated as the last barrier of process-related barriers by health care providers with a mean score of (1.32 ± 0.466) and a mean percent score of

26.40%. The Sociocultural barrier was the last one perceived by the healthcare providers as a barrier to implementing CG in the study settings, poor knowledge of healthcare providers about CG was perceived as the most Sociocultural related barrier with a mean score of (4.55 ± 0.916) and a mean percent score of 91.00% while, “unclear employment process (selection, appointment, job description, and evaluation)” was perceived by the minority of healthcare providers as a Sociocultural related barrier with a mean score of (1.32 ± 0.466) and a mean percent score of 26.40%.

Table 3 shows the association between healthcare providers' personal and work-related data and their perceived Barriers to implementing Clinical Governance. Regarding the age of healthcare providers, there is a significant difference between their age and their perception of barriers to CG implementation ($F = 5.533$ & $p = 0.001$) respectively. In specific, those aged between 50 and 60 years had the highest perceived mean score for CG barriers (143.70 ± 19.11), moreover, healthcare providers aged 20 to less than 30 years had the lowest mean score regarding barriers of CG (135.30 ± 12.09). Regarding the years of experience of the healthcare providers, there is a statistically significant difference between their years of experience and their perception of the barriers to clinical governance implementation ($F = 9.345$, $p < 0.001$), those years of experience between 20-30 years had the highest perceived mean score for CG barriers (144.91 ± 11.23). Pertaining to previous attendance of workshops regarding clinical governance, there was a significant difference between previous attendance of workshops regarding clinical governance and healthcare providers' perception to the barriers of CG implementation ($t = 2.131$ & $p = 0.004$) In specific, those who have not attended any workshops had the highest perceived mean score for CG barriers (139.52 ± 14.63). Moreover, healthcare providers who attended workshops had the

lowest mean score regarding barriers of CG (61.16 ± 12.28). Regarding, previous attendance of workshops regarding GAHAR requirements There was a significant difference between their previous attendance of workshops about GAHAR requirements and their perception of the barriers to CG implementation ($F = 2.507$ & $p = 0.004$) In Specifically, healthcare providers who attended workshops had the lowest mean score regarding barriers of CG (58.66 ± 9.61)

Discussion

Clinical governance in healthcare organizations has become a vital necessity to safeguard standards of care and maintain transparency which is required for achieving efficiency. Cultivating clinical governance is one of the recent endeavors that the international society calls for its application on a wide scale in healthcare organizations due to its promising effects in upgrading health services while reducing close calls and errors of healthcare professionals. Meanwhile, fostering a clinical governance atmosphere among empowered healthcare providers was reported in contexts where patients' satisfaction was prominent. The current study aims to determine barriers to implementing clinical governance at healthcare organizations as perceived by healthcare providers, to suggest solutions that facilitate smooth application of CG.

The results of the present study highlight the multifaceted challenges of implementing clinical governance in healthcare settings. The barriers span across various domains, including infrastructure, human resources, processes, statistics and data, management, education, organizational culture, and sociocultural aspects. It is important to note that the perception of healthcare providers toward CG barriers in this study is consistent with the direction of the Egyptian state to upgrade the healthcare sector after the inception of universal health insurance. Moreover, the moderate perceived level of

healthcare providers toward most CG barriers could be attributed to the efforts made by GAHAR to raise awareness of the healthcare workforce with patient safety guidelines. Another explanation for this level is the desire of the study setting to be enrolled under umbrella of universal health insurance makes it to dedicate its efforts toward empowering health work force and cultivate clinical governance culture. Moreover, the recent awaking in health sectors worldwide geared toward reducing margins of errors in healthcare make healthcare organizations to adhere to clinical pathways with high considerations to standards of care in a transparent manner. This fuels clinical governance culture in the study settings where there is a participatory vision from all stakeholders, an appropriate healthcare work environment characterized by no blame just responses to errors, supportive supervision, and efficient monitoring mechanisms.

These results were parallel with a study conducted by Correa et al. (2020) that identified barriers and facilitators for the implementation of clinical practice guidelines, which include political and social contexts, the health organizational system, guidelines, health professionals, and patients. Similarly, a study conducted by Veenstra et al. (2017) explored healthcare professionals' views on clinical governance, highlighting the importance of a bottom-up approach, effective teamwork, learning from mistakes, and feedback. Inadequate management and leadership, a lack of support, an unsuitable organizational culture, a lack of expertise, inadequate communication channels, and inadequate training are further obstacles to the successful application of CG (Ravaghi et al., 2014; Gauld & Horsburgh, 2015).

The most significant barriers appear to be related to infrastructure and human resources. Specifically, the lack of a defined role for clinical governance in the healthcare system and the lack of staff and high amount of work were identified as the most significant barriers

within these domains. The lack of a defined role for clinical governance within the healthcare system suggests a fundamental ambiguity or uncertainty regarding its purpose and implementation. This ambiguity can lead to confusion among healthcare professionals about their responsibilities and how clinical governance fits into their daily practices. Additionally, the shortage of staff combined with a high workload can hinder the effective implementation of clinical governance practices. When healthcare professionals are already overburdened, they may not have the time or resources to dedicate to additional processes like clinical governance, leading to its neglect or improper implementation. These results are the case in the studies of Ferdosi et al. (2016); Behzadifar et al. (2019). These studies identified eight major challenges in implementing clinical governance, including inadequate staff, an unsupportive culture, inappropriate training, a lack of financial and physical resources, and weaknesses in management performance, inadequate monitoring, and a lack of regulation. Also, the study of Gauld et al. (2017) identified five key themes representing barriers to clinical governance implementation, which include developing management-clinical relations, clinicians stepping up into clinical governance and leadership activities, inter-professional relations, training needs for governance and leadership, and having insufficient time to get involved.

Likewise, barriers to CG were also reported in the studies of Mosadeghrad (2017); Vassos et al. (2019); Veenstra et al. (2017); Gurdogan and Alpar (2016); Karassavidou et al. (2011); and Kaba and Öztürk (2022). These studies found CG barriers are different in which human resource shortage, lack of top management support, lack of definite CG structure, and lack of organizational culture were the most reported barriers in the road of CG. In this context; Bahrami et al. (2014) detected that their hospitals' climates were not sufficiently supportive for CG application. Meanwhile, the analysis of mean scores for

the CG climate elements shows that the hospitals under study do not have a favorable situation in these areas. Additionally, Ahmed et al. (2023), and Fardazar et al. (2015) concluded that hospitals' readiness for CG implementation was weak. Moreover, Ghavamabad et al. (2021) found healthcare providers had poor perception and awareness regarding clinical governance. In these studies, preconditions of CG such as clinical audit, staff empowerment, patient involvement, and just culture recorded weak scores. Interestingly, the vast majority of healthcare providers in the current study had a moderate perceived level regarding CG barriers. The most significant barriers appear to be related to infrastructure and human resources, indicating that these areas require the most attention for the successful implementation of clinical governance. Healthcare providers often require adequate infrastructure and sufficient human resources to effectively implement clinical governance practices. Lack of essential equipment, outdated facilities, and understaffing can hinder the implementation process. These barriers can directly impact the delivery of quality care, adherence to protocols, and the ability to monitor and evaluate clinical outcomes. Clinical governance involves complex systems and processes that require coordination among various stakeholders within healthcare organizations. Infrastructure-related barriers, such as outdated technology or inadequate data management systems, can impede the smooth implementation of these processes. Similarly, insufficient staffing or a lack of trained personnel can hinder the execution of clinical governance initiatives.

According to the association between personal and work-related data of healthcare providers and their perceptions of barriers to clinical governance implementation, the significant relationships found between socio-demographic data (such as age and years of experience) and barriers to clinical

governance implementation whereas these factors play a crucial role in the perception and implementation of clinical governance. For instance, the highest mean regarding barriers to clinical governance implementation was related to the age group 50–60, this could indicate that younger healthcare providers may be more open to identifying barriers to clinical governance. In terms of years of experience, those who their years of experience between 20-30 years had the highest perceived mean score for CG barriers, this could indicate that younger healthcare providers have an awareness of barriers to implementing clinical governance. Moreover, healthcare providers who attended workshops had the lowest mean score regarding barriers of CG. The rationale behind this difference could be multifaceted. Attending workshops on clinical governance likely increases awareness and understanding of the concept, leading to a more nuanced perception of its barriers. Moreover, those who attended workshops might have encountered real-world challenges during their implementation efforts, which could have influenced their perception of barriers. Additionally, the difference in mean scores could also be attributed to the mindset shift that often occurs after education and training sessions. Participants may feel more empowered to address challenges after gaining new knowledge and skills in the workshops. Regarding, previous attendance of workshops regarding GAHAR requirements There is a significant difference between their previous attendance of workshops regarding GAHAR requirements and their perception of the barriers to CG implementation. In specific, healthcare providers who attended workshops had the lowest mean score regarding barriers to CG, this could be attributed to the fact that by attending these workshops, healthcare providers likely received in-depth information about the requirements, guidelines, and best practices related to CG implementation, thereby better understanding

how to navigate potential barriers effectively. Consequently, their perception of barriers may be lower, this highlights the importance of education and training in equipping healthcare providers with the necessary tools and knowledge to successfully implement complex initiatives like CG.

Likewise, these results were also reported in the studies of Mosadeghrad (2017); Vassos et al. (2019); Veenstra et al. (2017); Gurdogan and Alpar (2016); Karassavidou et al. (2011); and Kaba and Öztürk (2022). These studies found, that healthcare providers are more aware of the challenges to implementing clinical governance, higher academic qualifications may lead to a greater awareness of the challenges of implementing clinical governance.

Conclusion

Based upon the findings of the current study, it could be concluded that the successful implementation of clinical governance requires a comprehensive and multifaceted approach. This approach must emphasize interventions related to organization infrastructure, management, human resources, organizational culture, statistics and data, and education. Addressing these areas in the plan of CG is pivotal, as healthcare providers and process owners perceive it as highly significant Barriers to implementing CG in healthcare settings.

Recommendations

In line with the findings of the study, the following recommendations are made:

- Establishment of a committee at the hospital responsible for all activities of CG implementation
- Entrust evaluation and accreditation into independent NGOs.
- Harmonization of Clinical governance standards with native Egypt protocol, guidelines, and standards.

- Incorporating principles of Clinical governance in the educational curricula of healthcare providers.
- Integrate clinical governance principles in the system of healthcare providers' performance appraisal.
- Offer sufficient incentives to motivate and increase the participation of healthcare providers in clinical governance programs.
- Overcome shortage of qualified cadres of human resources.

Table (1): Distribution of healthcare providers according to their perceived levels of clinical governance implementation barriers

Barriers of Clinical Governance	Level of perception	Total frequency		Health care providers (n=389)								Test of sig (P)
		n	%	Physicians (n)=50		Nurses (n)=304		Pharmacists (n)=25		Technicians (n)=10		
				n	%	n	%	n	%	n	%	
Infrastructure related	Minimal perceived barriers	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	F=4.480 p=0.129
	moderate perceived barriers	21	5.3	6	12	10	3.3	3	12	2	20	
	Maximum perceived barriers	368	94.67	44	88	294	96.7	22	88	8	80	
Process related	Minimal perceived barriers	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	F=3.387 p=0.170
	moderate perceived barriers	213	54.7	29	58	160	52.6	17	68	7	70	
	Maximum perceived barriers	176	45.2	21	42	144	47.4	8	32	3	30	
Sociocultural related	Minimal perceived barriers	273	70.1	40	80	210	69	16	64	7	70	F=5.441 p=0.132
	moderate perceived barriers	110	28.2	9	18	91	29.9	8	32	2	20	
	Maximum perceived barriers	6	1.5	1	2	3	1.1	1	4	1	10	
Management related	Minimal perceived barriers	135	34.7	12	24	115	37.8	6	24	2	20	F=6.481 p=0.133
	moderate perceived barriers	244	62.7	35	70	184	60.6	18	72	7	70	
	Maximum perceived barriers	10	2.5	3	6	5	1.6	1	4	1	10	
Human resources related	Minimal perceived barriers	55	14.1	8	16	43	14.2	3	12	1	10	F=4.480 p=0.128
	moderate perceived barriers	65	16.7	10	20	50	16.4	3	12	2	20	
	Maximum perceived barriers	269	69.1	32	64	211	69.4	19	76	7	70	
Organizational culture related	Minimal perceived barriers	81	20.8	10	20	64	21	5	20	2	20	F=3.423 p=0.122
	moderate perceived barriers	308	79.1	40	80	240	78.9	20	80	8	80	
	Maximum perceived barriers	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	
Statistics and data related	Minimal perceived barriers	10	2.5	2	4	6	2	1	4	1	10	F=5.442 p=0.127
	moderate perceived barriers	326	83.8	45	90	255	83.8	19	76	7	70	
	Maximum perceived barriers	53	13.6	3	6	43	14.2	5	20	2	20	
Education related	Minimal perceived barriers	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	F=5.321 p=0.126
	moderate perceived barriers	380	97.6	49	98	298	98	24	96	9	90	
	Maximum perceived barriers	9	2.3	1	2	6	2	1	4	1	10	
Overall barriers to Clinical governance	Minimal perceived barriers	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	F=3.632 p=0.173
	moderate perceived barriers	364	93.5	42	84	290	95.4	23	92	9	90	
	Maximum perceived barriers	25	6.5	8	16	14	4.6	2	8	1	10	

Table (2): Mean scores of Barriers to Clinical Governance implementation perceived by healthcare providers.

Barriers of Clinical Governance		n=389	
		Mean± SD	Mean percentage
Infrastructure		21.42±1.72	85.64%
1	Lack of determining clinical governance in healthcare system.	4.89±0.316	97.80%
2	Lack of local standard in Egypt for application of Clinical governance.	3.25±0.501	65.00%
3	Lack of organization chart to implement Clinical governance.	4.72±0.575	94.40%
4	Increased numbers of standards with many editions in limited time.	4.33±0.617	86.60%
5	Lack of Concern with principles of Clinical governance in educational curricula of healthcare providers	4.22±0.976	84.40%
Process		21.31±2.23	71.07%
6	Rapid changes of decisions makers and lack of stability of any program developed by MOHP.	2.54±0.681	50.80%
7	Lack of available KPIs, polices, guidelines and regulations for implementation of CG	4.27±0.787	85.40%
8	Annual change of CG guidelines and principles.	4.31±1.139	86.20%
9	Lack of incentives for implementation of CG	4.33±0.846	86.60%
10	Unclear employment process (selection, appointment, job description and evaluation).	1.32±0.466	26.40%
11	Lack of enough resources for CG implementation	4.55±0.916	91.00%
Sociocultural		10.92±2.33	43.64%
12	Lack of cooperation between hospital and other agencies responsible on guiding CG application process.	1.94±1.196	38.80%
13	Lack of patient involvement in Care related decisions.	1.30±0.459	26.00%
14	Unclear communication channels between hospital and community.	1.44±0.819	28.80%
15	Poor familiarity of people with their right and demanding them	1.51±0.945	30.20%
16	Poor knowledge of healthcare providers about CG.	4.72±0.627	94.40%
Management		17.27±3.16	57.60%
17	Rapid change in healthcare related decisions.	2.49±0.756	49.80%
18	Lack of management support.	2.28±1.366	45.60%
19	Lack of full authority for manager to apply CG	2.19±1.661	43.80%
20	Poor interaction of management and employees	4.60±0.678	92.00%
21	Lack of management commitment in all levels to implement quality improvement program.	3.11±1.302	62.20%
22	Lack of quality improvement culture	2.61±1.833	52.20%
Human resources		14.79±3.49	73.95%
23	Lack of staff and high amount of work.	4.38±1.065	87.60%
24	Lack of justice in performance evaluation and performance-based promotion	2.68±1.291	53.60%
25	Lack of inter-professional collaboration team and teamwork	3.62±1.116	72.40%
26	Lack of qualified and well-trained team for healthcare providers for loading clinical governance programs.	4.11±0.998	82.20%
Organizational culture		13.99±2.42	55.96%
27	High resistance to change across all levels of organization.	4.07±1.126	81.40%
28	Poor treatment with clients and their families in hospital.	1.24±0.427	24.80%
29	Poor acceptance and flexibility toward patient criticism and opinions.	1.56±0.783	31.20%
30	Poor implementation of safety tips (lack of confidence in risk management and assessment and reporting errors).	3.51±1.181	70.20%
31	Lack of strategic planning and strategic thinking	3.61±1.309	72.20%
Statistics and data		20.34±2.16	67.80%
32	Low accuracy and validity available data.	2.53±1.335	50.60%
33	Absence of data bases in digital form for easy retrieval.	4.00±1.089	80.00%
34	Absence of detailed record for data and information concerning different processes of hospital.	3.77±1.329	75.40%
35	Lack of time to insert data and its analysis.	3.60±1.102	72.00%
36	Lack of reliable methods for data collection concerning hospital operation.	2.85±0.897	57.00%
37	Loss of data due to poor storage.	3.59±0.970	71.80%
Education		19.44±1.92	64.80%
38	Lack of suitable scientific packages for patient education.	2.21±0.786	44.20%
39	Lack of concern for staff education and development in hospital.	2.86±0.747	57.20%
40	Poor familiarity of manager with area of clinical governance.	4.37±0.729	87.40%
41	Poor knowledge of stakeholders about CG principles and guidelines.	4.57±0.635	91.40%
42	Too many managers, lack the knowledge and skills to use and make decisions based on data.	2.98±0.669	59.60%
43	Too difficult and time-consuming risk management procedures.	2.45±0.944	49.00%
The overall of Barriers of Clinical Governance		139.49±15.7	64.91%

Table (3): Personal and work-related data of healthcare providers and their association with barriers to clinical governance implementation

Demographic data	Barriers of Clinical Governance	
	Mean \pm SD	Test of sig.
Age		
20-<30	135.30 \pm 12.09	
30-<40	140.57 \pm 13.18	F = 5.533*
40-<50	138.89 \pm 11.25	p = 0.001*
50-60	143.70 \pm 19.11	
Years of experiences		
1-10	137.01 \pm 12.53	F =9.345*
10-20	140.36 \pm 13.21	p <0.001*
20-30	144.91 \pm 11.23	
More than 30	132.74 \pm 23.20	
Previous attendance of workshops regarding Clinical Governance		
Yes	61.16 \pm 12.28	t = 2.131*
No	139.52 \pm 14.63	p =0.004*
Previous attendance of workshops regarding GAHAR requirements		
Yes	58.66 \pm 9.61	F =2.507*
No	139.16 \pm 14.33	p =0.004*

References

- Abd El Fatah, T. A., Ali, N. A., Elazazy, E. M., Dowidar, N. L., Abd Elgalil, H. M., & Mohamed, S. S. (2019). Assessment of clinical governance in primary health care services: a case study on Dakahlia governorate, Egypt. *The Egyptian Journal of Hospital Medicine*, 76(1), 3355-3365.
- Ahmed, S. M. I., Awad, N. H. A., & Sayed, N. M. E. (2023). The relationship between clinical governance and organizational culture at Kafr El Dawar Central Hospital. *International Journal of Novel Research in Healthcare and Nursing*, 10(3), 73-83. <https://doi.org/10.5281/zenodo.8398569>.
- Antony, J., Sunder M, V., Sreedharan, R., Chakraborty, A., & Gunasekaran, A. (2019). A systematic review of Lean in healthcare: a global prospective. *International Journal of Quality & Reliability Management*, 36(8), 1370-1391.
- Askari, R., Dolatian, M., Shafil, M., Baghian, N., & Rafiel, S. (2017). Challenges in implementing clinical governance: A qualitative study in Yazd, Iran. *East African Medical Journal*, 94(1), 44-50.
- Bahrami, M. A., Sabahi, A. A., Montazeralfaraj, R., Shamsi, F., & Ardekani, S. E. (2014). Hospitals' readiness for clinical governance implementation in educational hospitals of yazd, iran. *Electronic physician*, 6(2), 794-800. <https://doi.org/10.14661/2014.794-800>.
- Behzadifar, M., Bragazzi, N. L., Arab-Zozani, M., Bakhtiari, A., Behzadifar, M., Beyranvand, T., Yousefzadeh, N., Azari, S., Sajadi, H. S., Saki, M., Saran, M., & Gorji, H. A. (2019). The challenges of implementation of clinical governance in Iran: a meta-synthesis of qualitative studies. *Health Research Policy and Systems*, 17(1), 3. <https://doi.org/10.1186/s12961-018-0399-5>.
- Correa, V. C., Lugo-Agudelo, L. H., Aguirre-Acevedo, D. C., Contreras, J. A. P., Borrero, A. M. P., Patiño-Lugo, D. F., & Valencia, D. A. C. (2020). Individual, health system, and contextual barriers and facilitators for the implementation of clinical practice guidelines: a systematic metareview. *Health Research Policy and Systems*, 18(1), 74. <https://doi.org/10.1186/s12961-020-00588-8>.
- Fardazar, F. E., Safari, H., Habibi, F., Akbari Haghighi, F., & Rezapour, A. (2015). Hospitals' readiness to implement clinical governance. *International Journal of Health Policy and Management*, 4(2), 69-74. <https://doi.org/10.15171/ijhpm.2014.111>.
- Ferdosi, M., Ziyari, F. B., Ollahi, M. N., Salmani, A. R., & Niknam, N. (2016). Implementing clinical governance in Isfahan hospitals: Barriers and solutions, 2014. *Journal of Education and Health Promotion*, 5, 20. <https://doi.org/10.4103/2277-9531.184554>.
- Gauld, R., & Horsburgh, S. (2015). Healthcare professionals' perceptions of clinical governance implementation: a qualitative New Zealand study of 3205 open-ended survey comments. *BMJ Open*, 5(1), e006157. <https://doi.org/10.1136/bmjopen-2014-006157>.
- Gauld, R., Horsburgh, S., Flynn, M. A., Carey, D., & Crowley, P. (2017). Do different approaches to clinical governance development and implementation make a difference? Findings from Ireland and New Zealand. *Journal of Health*

- Organization and Management*, 31(7-8), 682-695. <https://doi.org/10.1108/jhom-04-2017-0069>.
- General Authority for Health Accreditation and Regulation [GAHAR]. (2021). *Gahar Handbook for hospital Standards*. GAHAR.
- Ghavamabad, L. H., Vosoogh-Moghaddam, A., Zaboli, R., & Aarabi, M. (2021). Establishing clinical governance model in primary health care: A systematic review. *Journal of Education and Health Promotion*, 10, 338. https://doi.org/10.4103/jehp.jehp_1299_20.
- Gurdogan, E. P., & Alpar, S. E. (2016). The relationship between nurses' perceptions of the clinical governance climate and their job satisfaction levels. *International Journal of Caring Sciences*, 9(2), 1.
- Kaba, N. K., & Öztürk, H. (2022). Nurses' perceptions of clinical governance climate. *Journal of Education and Research in Nursing*, 19(2), 198-207. <https://doi.org/10.5152/jern.2022.54289>.
- Karassavidou, E., Glaveli, N., & Zafiroopoulos, K. (2011). Assessing hospitals' readiness for clinical governance quality initiatives through organizational climate. *Journal of Health Organization and Management*, 25(2), 214-240. <https://doi.org/10.1108/14777261111134437>.
- Levay, P., Walsh, N., & Foster, L. (2022). The National Institute for Health and Care Excellence information specialist development pathway: Developing the skills, knowledge and confidence to quality assure search strategies. *Health Information and Libraries Journal*, 39(4), 392-399. <https://doi.org/10.1111/hir.12460>.
- Lucas, J., Leggat, S., & Taylor, N. (2022). Association between use of clinical governance systems at the frontline and patient safety: a pre-post study. *International Journal of Health Governance*, 27(3), 282-295. <https://doi.org/10.1108/IJHG-02-2022-0023>.
- Mosadeghrad, A. (2017). Evaluation of hospital accreditation standards. *RJMS*, 23, 50-61.
- National Health Service (NHS). (2022). *Governance, patient safety and quality*. NHS.
- Patel, K., & Jenkyn, I. (2021). An introduction to clinical governance in dentistry. *British Dental Journal*, 230(8), 539-543. <https://doi.org/10.1038/s41415-021-2839-9>.
- Ravaghi, H., Zarnaq, R. K., Adel, A., Badpa, M., Adel, M., & Abolhassani, N. (2014). A survey on clinical governance awareness among clinical staff: a cross-sectional study. *Global Journal of Health Science*, 6(6), 37-42. <https://doi.org/10.5539/gjhs.v6n6p37>.
- Stahl, B. C., Antoniou, J., Ryan, M., Macnish, K., & Jiya, T. (2022). Organisational responses to the ethical issues of artificial intelligence. *Ai & Society*, 37(1), 23-37. <https://doi.org/10.1007/s00146-021-01148-6>.
- Vassos, M., Nankervis, K., & Chan, J. (2019). Clinical governance climate within disability service organizations from the perspective of allied health professionals. *Journal of Policy and Practice in Intellectual Disabilities*, 16(1), 67-77.
- Veenstra, G. L., Ahaus, K., Welker, G. A., Heineman, E., van der Laan, M. J., & Muntinghe, F. L. (2017). Rethinking clinical governance: healthcare professionals' views: a Delphi study. *BMJ Open*, 7(1), e012591. <https://doi.org/10.1136/bmjopen-2016-012591>.