

Scientific Paper Entitled: The Impact of Infection Prevention Measures on the Quality of Health Service from the Perspective of Health Personnel in the Kingdom of Saudi Arabia

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Abstract:

Significant morbidity is caused by infections (HAIs) connected to healthcare settings. Hospital infections, sometimes referred to as nosocomial infections or prolonged hospital HAIs, are infectious disorders that manifest 48 hours after hospital admission, three days after discharge, or thirty days following medical treatment. An analysis was conducted on 39 government-owned hospitals totaling 10,822 beds, which accounted for the majority (59.9%) of healthcare provided in Saudi Arabia. Hospital data is used by Medicare and Medicaid to monitor hospital performance for IPC-related issues. Furthermore, many hospitals lack the resources necessary to create the fundamental elements of a successful IPC program. The Hajj has been linked to an increase in infectious illness prevalence and transmission. These variables include shifts in human behavior and demography, the impact of emerging businesses and technologies, a rise in international trade and travel, and disintegration brought on by public health initiatives. The administration is the source of all costs associated with public health services, which are offered to Saudi residents at no cost. According to earlier research, there may be a reciprocal relationship between safety culture and improvement, with successful treatments being facilitated by a positive safety culture and cultural improvements being a result of the implementation of successful interventions. More focus on the purpose, design, and analysis of the article is required to validate these hypothesized relationships.

Keywords

- infection prevention, measures, health personnel, Kingdom of Saudi Arabia.

Introduction

For patients, public health authorities, infection control professionals, and healthcare providers, healthcare-associated infections (HAIs) represent a serious problem. According to estimates, the risk of getting HAIs can be up to 20 times higher in underdeveloped nations, meaning that up to 25% of people could become infected. Over 3 million HAIs are reported by nursing homes annually, according to a recent Centers for Disease Control (CDC) report; some of these infections result in patient death or impairment. Longer hospital admissions, antibiotic resistance, higher healthcare expenses, and an

increase in mortality and morbidity are all linked to health-associated infections (HAIs). Between 44,000 and 98,000 preventable fatalities are thought to be caused by HAIs in the US each year, and the estimated cost of treating these infections is between USD 17 and USD 29 billion (Alslamah & Abalkhail, 2022).

Over time, KSA healthcare facilities have changed. In Mecca, the first public health department was founded in 1925. KSA's Ministry of Health was established in 1950. The state hospitals in the public sector and the privately owned hospitals make up the Saudi healthcare system. Government healthcare services must be provided and funded by the Ministry of Health. In Saudi Arabia, 26 percent of health services are provided by hospitals and basic healthcare facilities. Other governmental agencies, apart from the Ministry of Health, offer healthcare services to the general public in addition to their employees and dependents. Among these are the security forces (Alslamah & Abalkhail, 2022).

Primary, secondary, and tertiary healthcare make up the KSA healthcare system. In Saudi Arabia, primary healthcare offers essential medical services to all citizens. Referrals to hospitals like the King Faisal Specialist Hospital, higher education hospitals (teaching hospitals), and research institutions are made for specialized treatment, which is provided at some public and private facilities. From primary to tertiary healthcare, as well as high-risk and emergency services, the public sector provides healthcare at all levels. As an example, certain government hospitals are dedicated exclusively to cancer treatment, while others focus on pediatric and maternity care. These hospitals are not meant to compete with one another. Saudi nationals and government contractors, including Aramco workers and their families, receive free care (Abouzeid MS; Zumla AI, 2016).

Antimicrobial resistance control and the prevention of HAIs, particularly highly transmissible disease outbreaks, through high-quality care in the framework of universal health coverage depend heavily on improvements in IPC at the national and facility levels. The World Health Organization (WHO) released recommendations on effective IPC strategies in 2016. These recommendations were based on a thorough evaluation of the literature and expert consensus, which was condensed into eight key components and accompanied by a list of minimal prerequisites for their implementation. The IPC program, IPC guidelines, IPC education and training, healthcare-associated infection surveillance, multimodal strategies, monitoring/audit

of IPC practices and feedback, workload, staffing, and bed occupancy, and the built environment, materials, and equipment for IPC are the essential elements required to improve IPC practices, according to these documents (Puro et al., 2022).

It has been observed that there is significant variation in HCWs' adherence to IPC procedures, such as hand cleanliness and PPE use, which is probably impacted by their understanding of infection risk and behavior. Good IPC practice is not always predicted by good knowledge, though. For instance, despite established guidelines for the prevention of healthcare-associated infections (HAIs), HCWs have been seen to exhibit inadequate adherence to hand hygiene procedures (Alhumaid et al., 2021).

The efficacy of following efficient infection control protocols has been proven in Saudi Arabian hospitals. For instance, a five-year period of treatments aimed at improving hand hygiene compliance was linked to a decrease in device-associated infections and HC-MRSA infections in a Saudi hospital. Furthermore, no infection was transferred to healthcare workers (HCWs) because to a combination of sophisticated and fundamental infection control procedures (Rabaan et al., 2017).

Study problem

Common infectious diseases and discuss the impact of infection prevention measures on the quality of health service from the perspective of health personnel in the Kingdom of Saudi Arabia

Study questions

1-What is the impact of infection prevention measures on the quality of health service from the perspective of health personnel in the Kingdom of Saudi Arabia?

2-What is the benefit of vaccination measures?

3-What is Infection Prevention and Control Hajj and Pilgrimages?

Study objectives

1. 1-To gauge staff awareness of infection prevention and control policies and procedures in different healthcare facilities in Saudi Arabia, including government hospitals, private hospitals and poly clinics

2. 2-To address staff training and access to information, confidence in the ability of HCWs to implement policies and carry out procedures, their assessment of the main threats in terms of possible outbreak causes and factors contributing to

infection spread, and preparedness of their institution to deal with an infection outbreak.

3. 3-To show the effectiveness of public health surveillance systems for infectious disease prevention and control.

Study limitations

1. Geographical boundaries: The study will be applied in the Kingdom of Saudi Arabia.
2. Time limits: The study will be implemented in 2022.
3. Human limitations: The study will be applied to a sample of health personnel in the government health sector in the Kingdom of Saudi Arabia.
4. Subject limits: limited to studying the "title"

Literature Review

Healthcare-associated infections (HAIs) represent the most common unfavorable consequence in global healthcare delivery. HAIs, particularly surgical site infections, are common in areas affected by violence. Reducing preventable health-associated infections (HAIs) and ensuring the safe, efficient, and high-quality provision of healthcare services depend on effective infection prevention and control (IPC). However, through staff shortages, disruptions in the supply chain, and attacks on medical facilities and personnel, armed conflict and widespread violence can have a detrimental impact on the quality of healthcare. Comprehending the unique obstacles and enablers encountered in these environments is essential to enhancing IPC (Lowe et al., 2021).

Infection Prevention and Control

IPC compliance is hampered by a lack of understanding of the rules, as well as by ignorance of preventive indications during routine patient care and the possible dangers of microbe transfer to patients. Insufficient understanding of the suitability, effectiveness, and use of IPC measures contributes to low compliance. The cornerstones of an improvement in IPC practices are training and education, which will help to overcome these obstacles. Health care workers need to understand that information is power. Despite education and training, there has been consistent evidence of a lack of understanding of IPC measures (Alhumaid et al., 2021).

Hand hygiene, donning personal protective equipment (PPE), vaccination against communicable diseases, infection modes, patient infection assessment, medical instrument decontamination, handling healthcare waste, and needle stick and sharp safety policies are all important topics that health

care workers (HCWs) should be aware of. To ensure a decrease in healthcare-associated infections, it is even more crucial that healthcare workers adhere to these IPC precautions, techniques, and tactics (Alhumaid et al., 2021).

Infection Prevention and Control in Healthcare System in KSA
In Saudi Arabia, infectious diseases have taken countless lives, despite the fact that most of them are treatable or preventable. The most common chronic infections that spread quickly among KSA residents are amoebic dysentery, chickenpox, and brucellosis, according to reports released by the Ministry of Health. An institution or healthcare facility may develop IPC quality assurance departments whose job it is to carry out infection control policies and procedures. IPC is a relatively young but rapidly expanding field in the Kingdom of Saudi Arabia. The Saudi MOH is in charge of setting up a number of disease control and prevention facilities across the country. For example, the establishment of the Command-and-Control Center (CCC) aimed to improve infection prevention and build up methods to monitor infections both within the Kingdom of Saudi Arabia and globally. Agencies such as the Centers for Medicare and Medicaid use hospital data to track hospital performance on matters pertaining to IPC (Abouzeid MS; Zumla AI, 2016).

The World Health Organization (WHO) has noted problems in Saudi Arabian hospitals, including crowded waiting areas in emergency rooms and inadequate focus on fundamental infection control practices, like hand washing and wearing personal protective equipment (PPE). The Ministry of Health (MOH) in Saudi Arabia has implemented new infection prevention and control guidelines for infectious patients. These guidelines are primarily based on WHO and Centers for Disease Control and Prevention (CDC) guidelines, with modifications made in response to epidemiological evidence, clinical experience, and local circumstances (Rabaan et al., 2017).

MERS-CoV in Saudi Arabia and other hospital-associated virus epidemics have shown the need of promoting and consistently implementing both more sophisticated measures and fundamental infection control practices, such as hand hygiene. Employees must be given clear instructions, nevertheless, in order for MOH-recommended infection prevention and control procedures to be successfully implemented in specific healthcare facilities and the departments that make up such facilities. It is important for management and staff to have

well-defined, understood expectations that are conveyed (Rabaan et al., 2017).

Hand hygiene (HH)

Hand hygiene is regarded as the cornerstone of clinical treatment and is necessary to stop the development of AMR and HAI. Global guidelines on hand hygiene in healthcare settings were released by WHO, and they included evidence- and consensus-based recommendations (Storr et al., 2017).

Few research has examined the rate of adherence to the number of HH opportunities. The majority of studies on HH in the Kingdom have concentrated primarily on the knowledge, attitude, and behavior of hospital staff and healthcare students toward such activities. The rate of compliance to HH was found to be 50.3% in a 12-month observational study carried out in a general hospital in Makkah, Saudi Arabia. This rate was similar to the pre-interventional compliance rate ($50.17\% \pm 9.00\%$) noted in this work. Providing personnel with appropriate education and training is essential to improving their knowledge of HH (Al Kuwaiti, 2017).

Numerous international studies have emphasized the need for a multimodal strategy to enhance HH practices; the kinds and quantity of strategies that are recorded in the literature differ significantly between hospitals and nations, primarily due to resource availability, staff expertise, and implementation costs. Even in a low-resource situation, some conventional techniques, like the ones employed in this study, continue to be helpful in improving HH compliance despite the availability of contemporary interventions. Important components of the list of tried-and-true strategies include motivating campaigns, active and passive teaching programs, poster displays, pamphlet distribution, more alcohol hand rub solution stations, and the application of WHO's five-moments plan (Al Kuwaiti, 2017).

Education and training

A comprehensive educational strategy for healthcare facilities should include infection prevention and control (IPC) education and training, as well as orientation for new hires, ongoing training opportunities for all staff members, regardless of rank or level, and audits to evaluate and track good clinical care practices. All staff categories benefit from education in terms of knowledge, attitudes, and practices being retained, and educational strategies ought to be based on behavioral change theories and techniques. Using a variety of instructional modalities, teach the fundamental ideas and theories of microbiology, infectious illnesses, and IPC in order

to maximize the benefits of hands-on and in-service training (Koo et al., 2016).

Prevention measures during Covid-19

The WHO Regional Office for Africa created an IPC scorecard fast assessment tool to ascertain the infection prevention and control (IPC) scores in health care facilities (HCFs). The Ministry of Health approved and validated the technique, and then the trained IPC focal points collected data and performed HCF assessments. The instrument concentrates on 14 key elements, or parameters: 1- The HCF has an IPC program; 2- a triage station; 3- an isolation facility; 4- hand-wash stations at all points of care; 5- personal protective equipment (PPE); 6- waste segregation; 7- waste disposal; 8- HW training in basic IPC; 9- intra-hospital surveillance of COVID-19; 10- sterilization; 11- cleaning and disinfection of the patient environment; 12- risk assessment of HWs exposed to COVID-19 patients; 13- water supply and storage in the HCFs; 14- the HCFs' sanitation and hygiene. The procedures, methods, and resources or supplies are the three requirements that each of the 14 components must meet. Based on a combination of extant research, expert consultations, and WHO standards, these 14 priority components were employed in the tool's development. These criteria are essential components of IPC that have a big impact on preventing nosocomial Covid-19 transmission (Kabego et al., 2023).

Hajj and Pilgrimages as a Challenge

The seasonal influenza vaccine is advised for high-risk pilgrims not only to lower their own morbidity and mortality but also to lower the spread of the illness. The Centers for Disease Control and Prevention (CDC) goes one step further and highly suggests this course of action for hajjis. The congested conditions during the Umrah and Hajj raise the possibility of respiratory diseases spreading, such as tuberculosis, influenza, and the Middle East Respiratory Syndrome (MERS) coronavirus, which was discovered in Saudi Arabia in 2012. It is unclear whether stricter enforcement of the laws would advance public health, but at Hajj 2020, it was demonstrated that implementing preventative measures and drastically limiting the number of large religious gatherings was effective. These limitations and the increased use of preventative measures like wearing face masks may also be more acceptable to pilgrims in the wake of the COVID-19 pandemic (Tobaiqy et al., 2020).

In order to enhance their practices and guarantee a decreased risk of contracting and spreading infections or existing medical conditions worsening, it is imperative to promote health

education and awareness programs before and during this spiritual journey. This will enable pilgrims to fulfill their rites in a safe and appropriate manner. For Umrah pilgrims, the Saudi Ministry of Health has produced an easy-to-read handbook to the Hajj that includes crucial details regarding necessary vaccines as well as other preventive and precautionary measures. These actions are based on research done after the annual Umrah pilgrimages (Tobaiqy et al., 2020).

One of the significant health issues during the Hajj is URTIs. Approximately 50% of the pilgrims wore the face masks. Using a face mask and practicing good hand cleanliness are two inexpensive physical preventative strategies that can lower the risk of respiratory infections. Muslims wash their hands as part of a ritual before each of the five daily prayers, therefore most pilgrims find it acceptable and simple to follow the advice about hand cleanliness. For people who are at risk, such as senior travelers and those with chronic illnesses, the pneumococcal immunization is advised. Respiratory infections have been demonstrated to be more common among risk groups (Alasmari et al., 2020).

Vaccination

Prior to the widespread use of vaccinations, infectious diseases were one of the leading causes of child death worldwide. Vaccines are administered orally or intravenously using either killed formulations or live, attenuated disease-producing organisms. After that, a person creates or generates antibodies for the development of active immunity and prevention. Immunization is the process by which vaccines encourage an individual's immune system to develop. Immunization is one of the most practical and affordable medicinal therapies for the prevention of infectious illnesses. Numerous fatal illnesses, such as meningitis, diphtheria, hepatitis B, measles, mumps, polio, pertussis, rubella, pneumonia, tetanus, and rotavirus diarrhea, have been reported to be prevented by it (Alabadi & Aldawood, 2020).

Each year, vaccinations save millions of lives as one of the most effective defenses against infectious diseases that are preventable by vaccines. However, a large percentage of children worldwide do not obtain their childhood immunizations, and the situation worsens in developing nations despite the availability of freely available vaccines and free health care (Alabadi & Aldawood, 2020).

Surveillance systems

It is commonly known that monitoring systems make it possible to assess the local burden of AMR and HAI and help identify

new AMR patterns, such as clusters and outbreaks, as well as early detection of AMR and HAI. In accordance with IPC guidelines and the local HAI situation, IPC actions ought to be tailored to the specific requirements of the healthcare facility. For these reasons, AMR patterns and other HAI surveillance systems are crucial parts of national and facility IPC initiatives. The development of general public health capability and the reinforcement of fundamental public health functions are further benefits of national IPC surveillance systems. However, a recent WHO assessment on the worldwide situational analysis of AMR revealed that inadequate infrastructure, data management, and laboratory capacity were cited by several regions as barriers to surveillance (Storr et al., 2017).

Surveillance systems serve a critical role in tracking infectious diseases with pandemic potential, like influenza and SARS, and quickly detecting health events like outbreaks, especially during big gatherings. The routine, passive reporting of structured, preset data on infectious disease episodes by medical facilities and diagnostic labs is the foundation of conventional and disease-specific surveillance. Unfortunately, indicator-based surveillance (IBS) is ineffective and insufficient data on newly emerging infectious disorders are reported because of a lack of resources, time, and reporting systems. As computational sciences have advanced, more surveillance approaches have emerged to augment IBS's shortcomings and improve the speed and sensitivity of monitoring systems. Digital surveillance uses advanced technology, extra computer-based systems, and the internet for communication and diagnostics (Hayati et al., 2021).

Workload, staffing and bed occupancy

It is acknowledged that overcrowding in medical facilities is a public health concern linked to the spread of disease. The patient-to-bed and health care worker-to-patient ratios should be determined by taking into account a number of variables, such as patient acuity, the demand for healthcare, and the availability of a skilled staff. These variables could make it difficult to provide the ideal staff-to-patient ratio, which could result in higher incidence of HAI and the spread of AMR (Storr et al., 2017).

Aim of the study:

To detect the impact of infection prevention measures on the quality of health service from the perspective of health personnel in the Kingdom of Saudi Arabia.

Methods

Research design:

Descriptive analytic cross sectional study design to detect the impact of infection prevention measures on the quality of health service from the perspective of health personnel in the Kingdom of Saudi Arabia. This design is a systematic and structured technique to collecting data from a sample of persons or entities within a broader population, with the primary purpose of producing a thorough and accurate description of the features, behaviors, views, or attitudes that exist within the target group.

Research Setting:

The study will be conducted in Al Iman General Hospital in Saudi Arabia.

Subject:

Purposive sample of 400 of health cadres , The sample will be selected according to certain inclusion criteria health cadres who working in Al Iman General Hospital in Saudi Arabia, male and female.

Sample size:

Study sample was selected via the systematic random sampling method.

The sample size is an important feature of any empirical study in which the goal is to make inferences about a population from a sample. In practice, the sample size used in a study is determined based on the expense of data collection and the need to have sufficient statistical power.

Inclusion Criteria:

The inclusion criteria were set as follows:

- (1) health cadres who working in Al Iman General Hospital in Saudi Arabia.
- (2) female and male.
- (3) from Saudi Arabia.

Sampling Technique:

Participants submitted data through a survey. Data will be collected by questionnaire.

Tools for data collection:

It will concern with Participants demographic data as age, gender, marital status and educational level. And four questions about the use of information technology in health sector in Saudi Arabia. Also questions about the impact of infection prevention measures on the quality of health service from the perspective of health personnel in the Kingdom of Saudi Arabia.

Validity:

The revision of the tools were ascertained by a panel of experts to measure the content validity of the tools and the necessary modification was done accordingly.

Administrative design:

An official permission was obtained from the directors of the hospital. The official permission included the aim of the study, the tools of data collection and the characteristics of the study.

Ethical considerations

Data was provided by participants via surveys. Participants were advised that participation in the study would be optional and that their privacy would be maintained. Data will be gathered by a self-reported questionnaire. The ethics committee will provide approval for this project. Before the questionnaire was administered, each participant provided written informed permission.

Results

Validity and Reliability Tests:

Internal Consistency Reliability Calculation:

Pearson's Coefficient Correlation was calculated to verify the validity of the internal consistency between the statements of each goal and the total score for the belonging axis. This was done after the study tool had been constructed and its apparent validity had been established by presenting it to a group of arbitrators who were both specialized and experienced in the field.

The questionnaire was given to a pilot sample consisting of thirty members of the healthcare staff in order to verify its internal reliability. The researchers then calculated correlation coefficients in order to evaluate the study tool's internal validity, as the following tables demonstrate:

Table (1): Correlation coefficients of items in the first axis with the total score.

Statement number	r
1	0.508**
2	0.808**
3	0.632**
4	0.746**
5	0.661**
6	0.654**
7	0.657**

** : p value <0.001

It is clear from the previous table that all of the statements are significant at the 0.01 level, as the values of the dimensional correlation coefficients ranged between (0.470 - 0.808), which are excellent correlation coefficients, and this offers a hint of strong internal consistency coefficients as well. It provides strong validity indications that may be relied in utilizing the present research technique.

Reliability of the study tool:

As for testing the reliability of the questionnaire, we utilized Cronbach's alpha coefficient, and the accompanying table illustrates the reliability axis of the research instrument as follows:

Table (2): Cronbach's alpha coefficient reliability coefficient for the total score of the questionnaire

	No. of statements	Cronbach's alpha
comprehensive quality standards questionnaire	7	0.748

The table showed that the Cronbach's alpha reliability coefficient for the total score of the questionnaire was (0.748), which is a good reliability coefficient suitable for the study.

Application Method of the Study Tool:

After collecting the study data, the researchers reviewed it in preparation for inputting it into the computer for statistical analysis. Subsequently, they transcribed it onto appropriate tables, provided commentary, and linked it to previous studies. Responses were given five levels: strongly agree (5 points), agree (4 points), neutral (3 points), disagree (2 points), and strongly disagree (1 point). To determine the length of the pentavalent scale cells used in the study Phrases, the range (5-1=4) was calculated and divided by the number of questionnaire cells to obtain the correct cell length ($4/5=0.80$). This value was then added to the lowest value on the scale (or the beginning of the scale, which is one) to determine the upper limit of the cell. The following table illustrates the method for correcting the Likert pentavalent scale.

Table (3): Method for correcting the scale.

Scale	The weight	The average arithmetic mean value ranges
Strongly Disagree	1	From 1 to less than 1.80
Disagree	2	From 1.81 to less than 2.60
Neutral	3	From 2.61 to less than 3.40
Agree	4	From 3.41 to 4.20
Strongly agree	5	From 4.21 to 5.

Table (4): Socio demographic characteristics of the studied participants

Sociodemographic variables	Cases (n=400)	
	No.	%
Age category (years)		
Less than 25 years	85	21.25%
From 26 to 35 years	130	32.5%
From 36 to 47 years	129	32.25%
More than 47 years	56	14%
Gander		
Male	240	60%
Female	160	40%
Marital status		
single	130	32.5%
married	148	37%
absolute	122	30.5%
Job		
doctor	60	15%
pharmaceutical	80	20%
specialist	55	13.75%
Technical	72	18%
nurse	96	24%
Administrative	37	9.25%
Educational status		
Diploma or less	72	18%
Bachelor's	180	45%
Postgraduate studies (PhD - Master)	148	37%
Years of experience		
1 – 5 years	65	16.25%
6 – 10 years	102	25.5%
11 - 15 years	128	32%
16 – 25 years	105	26.25%

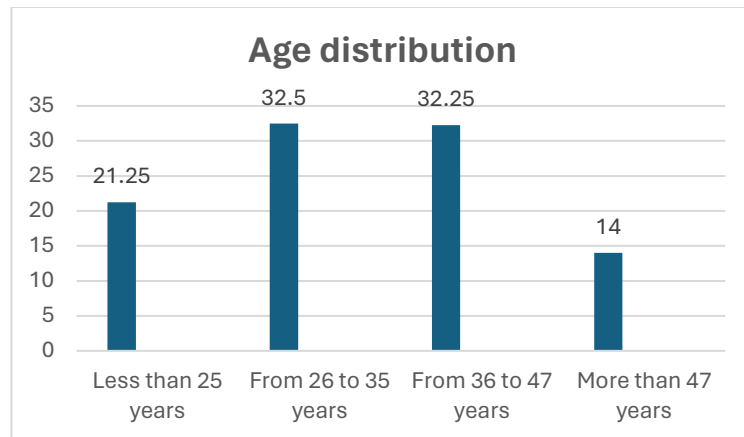


Fig (1): Age distribution among the studied participants

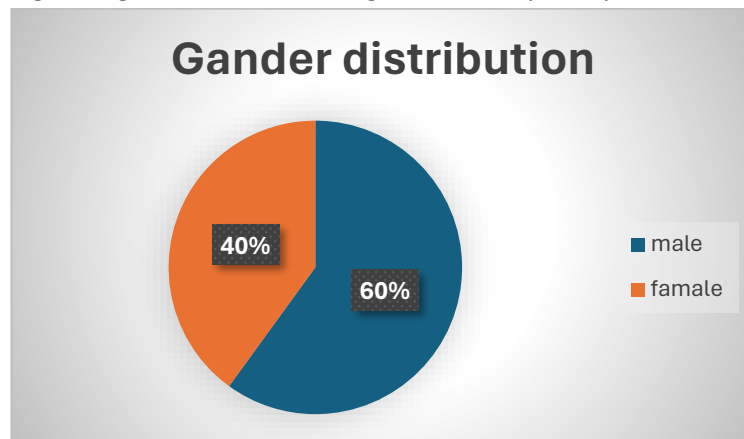


Fig (2): gender distribution among the studied participants

Table (1) & Figure (1-3) showed that 32.25% and 32.5 % of the studied participants were aged 36 -47 years and 26-35 years respectively. Regarding to the gender, more than half (60%) were males and 40% were females. 45% of the studied participants were bachelor's while only %18 was diploma or less. As regard to years of experience, 25.5% of the studied participants worked from 6 – 10 years.

Secondly: Results Related to the Axes of the Questionnaire:

Table (5): response of the studied participants regarding to Questionnaire

No.		Cases (n=400)			
		Mean	SD	Category	Rank
1-	The overall effectiveness of infection prevention measures implemented in our healthcare facility.	4.21	0.813	Strongly agree	3
2-	Have you observed any changes in the incidence of healthcare-associated infections (HAIs) since the implementation of infection prevention measures?	4.13	0.68	Agree	6
3-	Do you believe that the	4.02	0.74	Agree	7

	infection prevention measures have positively impacted patient safety?				
4-	How do you think the infection prevention measures have influenced the overall quality of healthcare services provided?	4.32	0.9231	Strongly Agree	2
5-	Do you face challenges in implementing or adhering to infection prevention measures?	4.19	0.965	Agree	4
6-	Do you feel adequately trained and supported in implementing infection prevention measures?	4.44	0.962	Strongly agree	1
7-	Improving the effectiveness of infection prevention measures in our healthcare facility improve service quality.	4.16	0.731	agree	5
Total score		4.12	0.85	Agree	

From the results shown in Table (5), it is evident that there is variation in the agreement among the study participants regarding the comprehensive quality standards and the productivity of health personnel in the government health sector in the Kingdom of Saudi Arabia. The participants' agreement averages ranged from (4.02 to 4.44), falling into the fourth and fifth category of the Likert scale, indicating agreement to strongly agreement with the study tool. This demonstrates consistency in agreement among the study participants regarding the impact of professional seniority on the performance of health cadres in the Saudi health sector.

Phrase (6): Do you feel adequately trained and supported in implementing infection prevention measures? ranked first with an average agreement of (4.44)

Phrase (4): How do you think the infection prevention measures have influenced the overall quality of healthcare services provided? ranked second with an average agreement of (4.32)

Phrase (1): The overall effectiveness of infection prevention measures implemented in our healthcare facility. Ranked third with an average agreement of (4.21)

Phrase (5): Do you face challenges in implementing or adhering to infection prevention measures? ranked fourth with an average agreement of (4.19)

And last rank came to phrase (3): Do you believe that the infection prevention measures have positively impacted patient safety? with an average agreement of (4.02)

Discussion

When seen from the point of view of health workers, the execution of infection prevention measures in the Kingdom of Saudi Arabia (KSA) plays a significant role in the maintenance and improvement of the quality of health services. Infection prevention strategies have become an essential component in reducing the risk of healthcare-associated infections (HAIs) and enhancing the overall outcomes for patients as a result of the rising focus placed on patient safety and the quality of healthcare (Storr et al., 2017).

The health workers in the Kingdom of Saudi Arabia are aware of the considerable influence that infection prevention measures have on the quality of the health services that are provided. These measures, which include protocols for hand hygiene, the appropriate use of personal protective equipment (PPE), procedures for sterilization, and environmental cleanliness, are considered to be essential in the prevention of the transmission of infectious illnesses inside healthcare institutions (Rabaan et al., 2017).

Furthermore, the adherence to infection prevention standards increases the trust of both patients and healthcare professionals in the safety and effectiveness of the services that are provided by healthcare providers. It is possible for healthcare professionals to dedicate more attention to patient care if the prevalence of healthcare-associated infections (HAIs) is reduced. This would result in better treatment results and overall satisfaction (Rabaan et al., 2017).

Conclusion

All organizational levels of healthcare workers' (HCWs') awareness and compliance are essential to the prevention and control of infections in healthcare institutions. For infection prevention and control policies and procedures to be effective, multidisciplinary teams of personnel ranging from frontline workers to management should be involved in their formation and execution. This is true of all health policies. With respect to the fundamental elements of the WHO IPC initiatives, this expert opinion statement was organized along three dimensions, each of which was discussed independently: In order to prevent HAIs through IPC best practices, (1) organizational and structural arrangements must be made; (2)

goals and techniques for HAI surveillance, monitoring, outbreak management, and the role of feedback must be established; and (3) approaches and efficacy of healthcare worker education and training must be considered.

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