



A SCIENTIFIC PAPER TITLED: THE EFFECT OF TRAINING AND EDUCATION ON THE PERFORMANCE OF HEALTH CADRES IN SAUDI ARABIA

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Abstract

The Ministry of Health (MOH) of Saudi Arabia employs corporate performance improvement methodologies in the development and execution of performance improvement initiatives. These initiatives are intended to further the Ministry's vision of transforming hospital operations and establishing a culture of quality and performance that is centered around the principle of "patient first." The viability of establishing a performance improvement unit (PIU) within the MOH to implement change management techniques and Lean Six Sigma principles was assessed by researchers. Ensuring the creation of a performance improvement unit (PIU) within MOH directorates was the initiative's ultimate goal. With an emphasis on skill transfer, this unit would be in charge of developing patient pathways and best clinical practice processes to alter hospital operations. The goal would be to localize and entrench a performance-enhancing culture that prioritizes safety, efficacy, patient centeredness, and punctuality. This study aims to investigate how education and training might raise the standard of healthcare provided in Saudi Arabia's public hospitals.

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DOI: 10.53555/ecb/2022.11.03.66

Introduction

The Ministry of Health (MOH) of Saudi Arabia employs corporate performance improvement methodologies in the development and execution of performance improvement initiatives. These initiatives are intended to further the Ministry's vision of transforming hospital operations and establishing a culture of quality and performance that is centered around the principle of "patient first." The viability of establishing a performance improvement unit (PIU) within the MOH to implement change management techniques and Lean Six Sigma principles was assessed by researchers. In four stages—PIU Setup, PIU Capability Building, High-Impact Project Implementation, and Project Sustainability and Knowledge Transfer—the MOH worked with outside consultants to carry out PIU projects. For ninety days, PIU units were set up in all thirteen provinces. In order to expand the skill set of Saudi health care workers and create local performance improvement champions within the Ministry of Health (MOH) who could spearhead, carry out, and maintain future projects, the process included encouraging information sharing. Despite the difficulties encountered during implementation, the first outcomes of the High-Impact Project Implementation phase were positive. PIU initiatives, however, had a poor sustainability rate; by nine months, performance improvement processes had returned to pre-intervention levels. This case study demonstrates that implementing PIUs is a workable strategy for enhancing Saudi Arabia's health care system. The program's poor sustainability, despite its early success, emphasizes the need to significantly enhance team leaders' and members' training, incentives, and participation in order to achieve long-term success (Hassanain, 2017).

To improve the performance of its facilities in KSA and the capabilities of the health care sector, the MOH first embraced a broad range of standardized health care performance improvement plans, which were created by the Agency for Healthcare Research and Quality and successfully implemented in the United States. The idea was to emphasize the "patient first" concept in order to foster a culture of quality. However, when this intervention was being devised, a great deal of scepticism surfaced. This was mostly caused by the Saudi MOH's 100% public health care system, where all employees are paid salaries and budgets are based on actual bed counts rather than volume or performance. This meant that neither administrators nor workers had any procedures in place to provide motivation. Moreover, no key

performance indicators (KPIs) or quality measurements were present. Based on corporate performance improvement approaches, the quality and development teams at the MOH decided to create and implement performance improvement initiatives in response to the overwhelming discontent expressed by administrators and patients with the hospitals' performance (Al Fraihi et al., 2016).

Ensuring the creation of a performance improvement unit (PIU) within MOH directorates was the initiative's ultimate goal. With an emphasis on skill transfer, this unit would be in charge of developing patient pathways and best clinical practice processes to alter hospital operations. The goal would be to localize and entrench a performance-enhancing culture that prioritizes safety, efficacy, patient centeredness, and punctuality. Other important goals assigned to this unit were to increase the coverage of specialized medical services to serve as many people as possible over several years, as well as to achieve cost efficiency and improve the quality of work processes, hence ensuring patient satisfaction (Al Fraihi et al., 2016).

Saudi Arabia is presently undergoing a period of development. The Saudi healthcare system is under tremendous pressure to deliver better healthcare services to the country's burgeoning senior population as well as its fast-expanding population. Two important issues that policymakers should take into account and address are the shortage of qualified healthcare professionals and the disproportionate reliance on foreign labour. Re-examining healthcare Human Resource Development (HRD) programs is crucial in order to ensure that there is a large pool of healthcare workers who possess the necessary education and skills. In the Kingdom of Saudi Arabia, healthcare facilities have advanced significantly (KSA). With the founding of the Ministry of Health (MOH) in 1950 and the first public health department in Mecca by royal edict in 1925, Saudi Arabia currently has 487 hospitals with 72,981 beds, or around 2.2 beds per 1000 people living in the Kingdom. The development of basic, secondary, and tertiary healthcare services has been accorded great priority by the government, which has demonstrated its keen dedication to enhancing the health of the Saudi populace. The Saudi government set aside SAR 146.5 billion (US\$1 = SAR 3.75) for social development and health services in 2018 alone. This amounted to 15% of the total amount the government spent on budgetary expenses. The World Health Organization (WHO) placed the Kingdom of Saudi

Arabia's healthcare system 26th out of 191 nations, placing it above the majority of its neighbouring Arabian Gulf nations, including Kuwait (45th), Qatar (44th), and the United Arab Emirates (27th). It also received higher rankings than many other industrialized country healthcare systems, including the USA (37th), Canada (30th), and Australia (32nd) (Al-Hanawi et al., 2019).

Even with these successes, the Saudi Kingdom's fastest-growing population presents significant obstacles to better healthcare delivery. According to the 2010 census, Saudi Arabia's population grew by 3.2% year between 2004 and 2010, with a total fertility rate of 3.04. Saudi Arabia's population is expected to reach 39.8 million by 2025, 54.7 million by 2050, and 61.3 million by 2100, according to UN projections. Taking care of the elderly has become more difficult as people's life expectancies have increased. The number of senior people is predicted to increase from about 1 million to over 2.5 million by 2020. The current infrastructure is under tremendous strain as a result, which increases the demand for a sizable pool of highly qualified healthcare workers. Adoption of the new strategic plan, Vision 2030, is another significant development in this scenario. It has brought new chances and challenges for the health sector to fine-tune its strategic imperatives and direction in the upcoming years (Al-Hanawi et al., 2018).

Significance of study

This study aims to investigate how education and training might raise the standard of healthcare provided in Saudi Arabia's public hospitals. Additionally, to demonstrate healthcare education and training approaches as well as the use of social media in these domains. This study aimed to determine why health education specialists need to possess certain knowledge and skills.

Literature Review

Training and continuing education of healthcare It is necessary to provide education and training above the bare minimum in order to develop human resources. The goal of being a lifelong learner is supported by continuing medical education (CME), which is a crucial instrument in the healthcare industry for updating and renewing a practitioner's experience. CME is made up of "educational activities" that help a doctor or clinician maintain, improve, or enhance the information, abilities, performance, and connections they utilize to help patients, the general public, or their profession. Formal CME encompasses several activities, including departmental targeted educational

meetings, conferences, workshops, symposia, courses, and others. This does not discount individual efforts that keep one informed about one's professional progress, such as regular or habitual reading and research (Alkhazim & Althubaiti, 2014).

Continuous professional development (CPD) is a word that is frequently used synonymously with continuing medical education (CME). It covers teaching strategies that go beyond conventional classroom structures, such as learner-centered and self-directed learning. CPD is closely related to revalidation and appraisal and can be seen as a way to monitor clinical, managerial, and professional development, depending on its intended use. Both phrases are equally crucial to the preservation of high-caliber medical care. A number of social and regulatory elements, including as the healthcare environment, educational culture, financing, accreditation standards, and credit hour laws, can affect how well CME events are conducted (Alkhazim & Althubaiti, 2014).

It is known as "continuing medical education" (CME) when medical practitioners continue to learn throughout their careers. Conferences, workshops, symposia, courses, and educational meetings are examples of formal CME. Personal initiatives that support someone's ongoing professional development, such as regular or habitual reading and research, are also included. CME is now transitioning from a competency-based, self-directed learning paradigm to a standard passive format. It is a continuous process that lasts the entirety of a doctor's career. In order to provide patients with better care, CME not only helps to increase knowledge and abilities but also to foster stronger interpersonal bonds. Physicians cannot stay competent for more than a few years after graduation without active learning. Regardless of discipline, specialty, or type, it is therefore a fundamental professional responsibility—if not an ethical and moral obligation—for physicians to stay fit to practice and continue learning throughout their careers (Sehlbach et al., 2018).

The Saudi Commission for Health Specialties (SCFHS) in Saudi Arabia offers a variety of postgraduate programs to train graduates in various medical specialties. The highest professional credential in general specialties granted by the Commission, the Saudi Board credential, will be given to the candidate upon completion of the program and successful completion of the evaluation procedures. Every program has a five-year lifespan. In a similar vein, CME—defined as instructional initiatives meant to keep medical professionals up to date on the most recent

advancements in their specializations and related fields—is offered by the SCFHS. This rule essentially assumes that participants' knowledge and abilities will increase as a result of attending CME activities. To ensure effective learning, this regulatory approach is insufficient. To allow learners to actively participate in the creation of training programs, adult learning principles must receive the attention they require. It is imperative to design the learning activities in accordance with the objectives of the learners. There haven't been any in-depth reports on these CME elements in Saudi Arabia (Alsalem et al., 2020).

Role of social media in the training and continuing education of healthcare

Social media networks have been utilized by healthcare professionals in the healthcare industry to enhance patient education, patient care, and communication between doctors and patients. These resources were also used by healthcare professionals to improve their training, programs, and abilities. Social media platforms have also provided doctors with an online forum for exchanging knowledge with their peers and discussing clinical difficulties. YouTube has been used in the medical field as a platform for sharing media, offering videos that emphasize medical news and CME. Likewise, it can support radiologists' advancement in their scientific and professional careers. Pharmacists frequently utilize social media to interact with one another and their coworkers. Additionally, nurses used social media platforms including Facebook, Twitter, and WhatsApp for networking, online interventions, teaching, and research (Alzain et al., 2021).

Facilitating transparent communication between unit personnel and leadership is essential for fostering a safe hospital culture. It has been demonstrated that holding brief daily meetings and exchanging knowledge about safety concerns improves team chemistry. Furthermore, a prompt leadership response to the worries of frontline workers fosters team unity and trust, both of which are beneficial outcomes in the care given to patients and their families. For this reason, the daily safety huddle is advised for usage in clinical settings by the UK's National Health Service (NHS) and the US Institute for Healthcare Improvement (IHI) (Aldawood et al., 2020).

For healthcare professionals, job happiness is a critical factor that influences both their output and caliber of work. The following variables are linked to health care practitioners' work satisfaction: sociodemographic factors (job type, age, sex, and duration of employment). In addition, the freedom to express oneself and receive recognition, the

quantity of working hours, promotions, and pay. Health care workers deal with difficult shift work and burnout, which lowers their level of satisfaction. Physician job satisfaction was also affected by the tension between work and family and the doctor-patient connection. Patient satisfaction as shown in professional treatment was positively impacted by nurses' job satisfaction. The work atmosphere, stress levels, and staff scheduling all have an impact on job satisfaction and the quality of treatment given in hospitals. The two main aspects thought to be in charge of boosting the organization's success and improving the effectiveness of the health service are the job satisfaction of healthcare professionals and the caliber of care they deliver. Saudi Arabia, a nation that is rapidly developing, has a scarcity of medical personnel in its hospitals, which may be caused by a lack of job satisfaction among medical personnel (Halawani et al., 2021).

Why knowledge and skills needed for health education specialists?

The goal of Saudi Vision 2030 was to improve all facets of the population's lifestyle in order to raise their standard of living. Improving health through preventative measures and lifestyle adjustments to lower healthcare costs and raise the standard of living for the general public is one of its primary goals. This was implemented by reorganizing Saudi Arabia's healthcare system to provide more all-encompassing, efficient, and integrated treatment with a focus on illness prevention and health promotion. These adjustments are being made in tandem with the growing digitalization of healthcare usage and delivery. Along with patient and public satisfaction, the new vision also seeks to adhere to worldwide standards based on evidence. The abilities and knowledge of Saudi Arabia's healthcare workers need to be reevaluated in light of all these suggested reforms to the healthcare system. Health education specialists are among the allied health professionals who concentrate on maintaining people's health and controlling or avoiding illnesses. Health education professionals try to encourage and empower people to adopt healthy habits and make other changes that lower their chance of contracting chronic illnesses and other morbidities (Al-Hashem, 2016).

A new profession is health education. A bachelor's degree in health education is offered by numerous universities in Saudi Arabia. Healthcare establishments acknowledge and categorize health education specialists, as defined by the Saudi Commission for Health Specialties, which is in charge of granting licenses to all medical professionals in Saudi Arabia. Since 1981, King

Saud University has been offering this degree, which calls for a four-year program centered mostly on theory followed by a year of internships. Although both male and female candidates are intended for the program, the program's female participation rate is noticeably greater. The Saudi Education and Training Evaluation Commission has granted the program national accreditation. The need for certified health education professionals has grown as a result of the expanding tasks and responsibilities centered on illness prevention and treatment. The emphasis on the abilities and information that program graduates will need has grown as a result of this recently identified demand. In order to satisfy the demands of the workplace and the expectations of health education graduates, it is crucial that university curricula be aligned with the needs of stakeholders (Alageel et al., 2023).

Adoption of Technological Advancements

Training programs assist medical personnel in gaining the skills they need to use digital tools and healthcare technologies efficiently. This covers clinical decision support systems, medical imaging systems, telemedicine, and electronic health records (EHRs). The Kingdom of Saudi Arabia's leading healthcare institutions have made significant strides toward implementing electronic medical records (EMRs). EMR integration can expedite the delivery of healthcare at several sites of care. For instance, they might expedite requests for pharmacy items, radiological investigations, and lab testing. Additionally, with EMRs, the nurse or physician can receive, examine, and save lab and radiological results; they can also scan documents, review progress notes and communications, and assist with record review. Additionally, they can compile the patient's medical history, which allows for the quick identification of comorbidities and previous and current drug regimens. Additionally, by assisting with clinical decision making through computerized clinical decision support (CCDS), electronic medical records (EMRs) can enhance the clinical performance of working healthcare professionals. Improved exposure to current clinical guidelines, alerts sent upon receiving bad test results, and alerts sent regarding drug allergies and interactions are some of the advantages in this regard. Documentation is another beneficial goal of implementation (AlSadrah, 2020).

Patient Safety and Quality Initiatives

Patient safety protocols and methods for quality improvement are highlighted in training sessions. It is often known that a culture of patient safety is an essential indicator of high-quality healthcare. In reality, leading health organizations like the World Health Organization (WHO) and global accrediting

bodies like the Joint Commission International (JCI) have highlighted the necessity of cultivating a safety culture as a successful strategy for long-term safety improvement. Patient safety culture (PSC) is defined by the JCI as the result of individual and collective attitudes, knowledge, skills, and practices that gauge a hospital's dedication to providing high-quality, safe patient care (Aljaffary et al., 2021).

Objectives

1. To assess the training and continuing education of healthcare.
2. To assess the performance of health cadres in Saudi Arabia.
3. To explore the effect of training and education on improving the performance of healthcare services in government hospitals in KSA.

Research Questions:

The current study will answer the following question:

1. How is the training and continuing education of healthcare?
2. How is the performance of health cadres in Saudi Arabia?
3. What is the effect of training and education on improving the performance of healthcare services in government hospitals in KSA?

Methods

Research design:

Descriptive analytic cross sectional study design to discuss the effect of training and education on improving the performance of healthcare services in government hospitals in KSA. 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, behaviours, views, or attitudes that exist within the target group.

Research Setting:

The study will be conducted in Al Shefa Hospital in Makkah 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 Shefa Hospital in Makkah, 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 Shefa Hospital in Makkah.
- (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. Questions to determine the effect of training and education on improving the performance of healthcare services in government hospitals.

Administrative design:

An formal approval was acquired from the authorities of the hospital. The formal approval covered the purpose of the investigation, the

instruments of data collecting and the features of the study.

Ethical considerations

Data was submitted by individuals via questionnaires. Participants were notified that participation in the research would be elective and that their anonymity would be preserved. Data will be acquired using a self-reported questionnaire. The ethics committee will offer clearance for this initiative. Before the questionnaire was conducted, each participant supplied signed informed consent.

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	Statement number	r
1	0.508**	7	0.657**
2	0.808**	8	0.506**
3	0.632**	9	0.721**
4	0.746**	10	0.470**
5	0.661**	11	0.759**
6	0.654**		

** : 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	11	0.658

The table showed that the Cronbach's alpha reliability coefficient for the total score of the questionnaire was (0.658), 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%

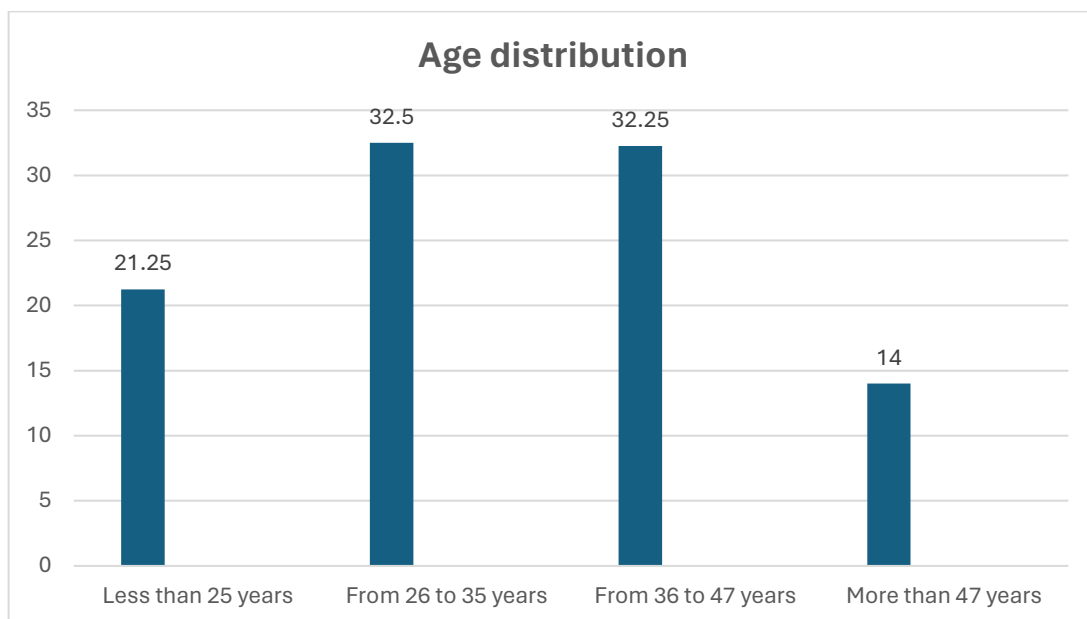


Fig (1): Age distribution among the studied participants

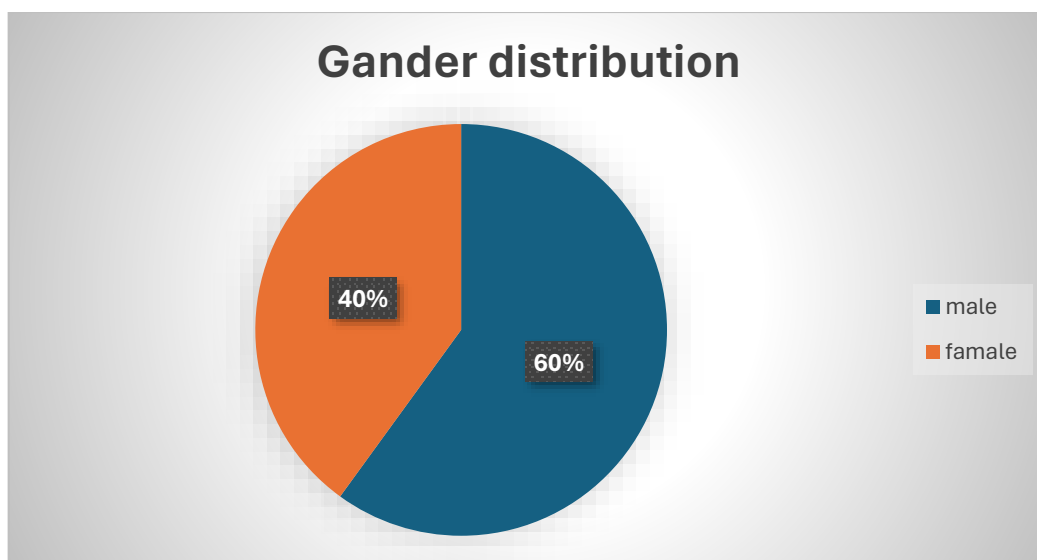


Fig (2): gander distribution among the studied participants

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 gander, 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=385)			
		Mean	SD	Category	Rank
1-	Participating in training programs related to your field	4.21	0.81	Strongly agree	3
2-	Is the training programs you have attended effective?	3.52	0.85	Agree	11
3-	Your training has improved your skills and knowledge	3.75	0.72	Agree	10
4-	Formal education contributed to your professional growth and performance	4.13	0.68	Agree	6
5-	Additional training is benefit for your workplace	4.01	0.79	Agree	8
6-	Educational programs are benefit for your workplace	4.02	0.74	Agree	7

7-	Are you satisfied with the training and education opportunities provided to healthcare professionals in Saudi Arabia?	3.95	0.76	Agree	9
8-	Do you feel that continuous training and education are important for your professional development in healthcare?	4.72	0.923	Strongly Agree	2
9-	Is training and education important to solve real-world challenges in healthcare?	4.19	0.96	Agree	4
10-	Do you collaborate with other members of the healthcare team?	4.8	0.96	Strongly agree	1
11-	Do you stay updated with advancements and best practices in your field?	4.16	0.92	Agree	5
Total score		4.22	0.87	Strongly 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 (3.52 to 4.8), 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 effect of training and education on the performance of health cadres in Saudi Arabia.

Phrase (10): Do you collaborate with other members of the healthcare team? ranked first with an average agreement of (4.8)

Phrase (8): Do you feel that continuous training and education are important for ranked second with an average agreement of (4.72)

Phrase (1): Participating in training programs related to your field ranked third with an average agreement of (4.21)

Phrase (9): Is training and education important to solve real-world challenges in healthcare? ranked fourth with an average agreement of (4.19)

Phrase (11): Do you stay updated with advancements and best practices in your field? ranked fifth with an average agreement of (4.16)

Phrase (4): Formal education contributed to your professional growth and performance ranked sixth with an average agreement of (4.13)

And last rank came to phrase (2): Is the training programs you have attended effective? with an average agreement of (3.52)

Discussion

Human resources are the most important components in the input of the administrative process in any service or productivity organization. These resources are linked with many concepts, including performance, productivity, satisfaction, training, and many other concepts that are

considered to be a part of the human resources strategy in the majority of organizations (Al Fraihi et al., 2016).

It is vital to have comprehensive, well-designed programs that are tailored to the specific needs of healthcare professionals who are employed in Saudi Arabia's government hospitals in order to maximize the effectiveness of training and education. In addition, assessment and monitoring of the effectiveness of training are essential in order to ensure that healthcare services continue to improve and that quality is maintained via ongoing development. The training was shown to have a favorable influence on the performance of community health workers (CHW) in a study that was conducted in 1997 by Bolhari and colleagues. Within the context of planning, the findings of the research were consistent with the function that supervision and training play (Ziabari, S and Shakerian, S, 2020).

According to the findings of another study, training and onsite clinical mentorship were found to have significant positive effects on self-reported performance in a wide variety of reproductive, maternal, and newborn health (RMNH) services, particularly with regard to intra-operative care, leadership skills, and Comprehensive emergency obstetric and newborn care (CEMONC). The results demonstrated that training that was based on the recognized and prioritized requirements of healthcare professionals in accordance with their respective healthcare facilities and was supported by clinical mentoring led to substantial positive increases in self-reported performance across a broad variety of RMNH services (Mwansisya, T et al , 2022).

Conclusion

In order to optimize the effects of training and education, comprehensive, well-designed programs that cater to the unique requirements of healthcare professionals working in Saudi Arabia's government hospitals are essential. Furthermore, to

guarantee continued development and maintained quality in healthcare services, evaluation and monitoring of training efficacy are crucial.

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