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Awareness of Physiotherapists about Key Performance Indicators (KPIs) at Hospitals in Saudi Arabia: A Cross-Sectional Study

Sultanah Obaid Alanazi*

Ministry of the national Guard health Affairs, Rehabilitation Services department, Neuro rehabilitation unit, Saudi Arabia

***Corresponding author:** Sultanash Obaid ALanazi, Ministry of the national Guard health Affairs, Rehabilitation Services department, Neuro rehabilitation unit, Saudi Arabia.

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Abstract

The comprehension of Key Performance Indicators (KPIs) holds significance for physiotherapists as it facilitates their comprehension of the influence of their interventions on patient outcomes and enables them to pinpoint areas that require enhancement. Although KPIs are widely recognized by physiotherapists as valuable tools for enhancing patient outcomes, a significant number of practitioners lack the requisite expertise and proficiency to successfully integrate them into their clinical practice.

Objective

The aim of this study is to assess the awareness of physiotherapists of departmental KPIs in public and private hospitals.

Method

This research study is quantitative in nature and follows a cross-sectional research design. It collected the sample of the physiotherapists at the time to comprehend their awareness level about the KPIs at their hospitals. A convenience sample of 301 physiotherapists working in private and public hospitals in Saudi Arabia participated in the study with a response rate of 83% using a self-administered questionnaire.

Result

The outcomes of the current work found that majority of the physiotherapists have awareness regarding the utility of the KPIs in their physiotherapist's practices and the utility of the KPIs in the physiotherapist's departments improves the quality of physiotherapists services, enhances patient outcomes, increases the level of job satisfaction of the physiotherapists.

Conclusion

This research work also indicated that in Saudi Arabia, the majority of the physiotherapists employed the KPIs and effectively evaluated their performance which ultimately improved the performance of the physiotherapists.

Keywords

Physiotherapists; Key Performance Indicators; Saudi Arabia.

Introduction

Hospitals and medical doctors are expected to provide high-quality care to their patients in accordance with various standards and guidelines. These standards and guidelines can be set by professional organizations, regulatory agencies, or government bodies and are designed to ensure that patients receive safe and effective care [1]. They may also be required to track and report on certain aspects of patient care, such as patient outcomes, to ensure that they are meeting these standards. In addition to following care standards, hospitals, and medical doctors are also expected to adhere to ethical principles, such as respecting patient autonomy and confidentiality and providing informed consent to patients before providing treatment [2].

Physiotherapists in Saudi Arabia, also known as physical therapists, are healthcare professionals who work with individuals to improve their movement and manage their pain. They use a variety of techniques, such as exercises, stretches, and manual therapy, to help people recover from injuries, surgeries, and other conditions that affect their movement or cause pain. They may work with patients of all ages, from children to seniors, and may treat a wide range of conditions, such as sports injuries, back pain, stroke, and arthritis [3].

KPIs are metrics used to measure and evaluate the performance of an organization, department, or individual. These indicators are chosen based on the goals and objectives of the organization and are used to track progress toward meeting those goals. KPIs can be used in a variety of contexts, including business,

healthcare, and government, and can be applied at different levels, such as company-wide, departmental, or individual [4]. They can also be used to set targets and benchmarks and to motivate and reward employees [5].

By setting and tracking KPIs, hospitals can better understand their strengths and weaknesses, identify areas for improvement, and make informed decisions to help them achieve their goals and provide high-quality care to their patients. In some settings, physiotherapists may be expected to track and report on specific KPIs as part of their job responsibilities. For instance, they may be required to track the progress of patients in terms of functional mobility, pain levels, or participation in activities of daily living. By tracking these metrics, physiotherapists can identify trends and patterns and adjust their treatment plans as needed [6].

In addition to tracking KPIs, physiotherapists may also be involved in setting them. This involves working with other members of the healthcare team and hospital administrators to identify the most relevant and meaningful metrics to track. It may also involve establishing targets and benchmarks and developing systems for tracking and reporting on these metrics [7].

In general, the awareness of KPIs is important for physiotherapists as it helps them to understand the impact of their interventions on patient outcomes and to identify areas for improvement [8]. While most physiotherapists understand the importance of KPIs and their potential to improve patient outcomes, many lack the knowledge and skills to implement them effectively in practice [9].

Problem Statement

KPIs are important tools for monitoring and improving the quality of healthcare services, as they provide a means of measuring the performance of an organization and identifying areas for improvement. However, it is not clear to what extent physiotherapists in Saudi Arabia are aware of these indicators and how they are being used in the hospital setting. This lack of awareness may hinder the ability of physiotherapists to contribute to the continuous improvement of healthcare services and patient outcomes. Furthermore, the use of KPIs is increasingly being promoted as a means of enhancing accountability and transparency in the healthcare sector. In Saudi Arabia, the Ministry of Health has introduced several initiatives to promote the use of KPIs in the healthcare system, including the development of a national indicator framework and the establishment of a National Quality Council. Despite these efforts, it is not known how well these initiatives have been implemented or whether they have been successful in increasing awareness and use of KPIs among physiotherapists. This research aims to fill this gap in knowledge by exploring the current level of awareness among physiotherapists about KPIs at hospitals in Saudi Arabia. The study is also identifying any potential barriers or facilitators to the use of these indicators in practice and makes recommendations for improving awareness and use of KPIs among physiotherapists in the country. This information is valuable for policymakers and healthcare professionals who are seeking to enhance the quality of healthcare services and patient outcomes in Saudi Arabia [10].

Research Questions

1. What is the level of awareness of physiotherapists about KPIs at hospitals in Saudi Arabia?
2. What are the factors that influence physiotherapists' awareness of KPIs at hospitals in Saudi Arabia?

Research Objectives

The research objectives of this study are:

1. To assess the awareness of physiotherapists about KPIs at hospitals in Saudi Arabia. Research.
2. To identify factors that have an impact on physiotherapists' awareness of KPIs at hospitals in Saudi Arabia.

Literature Review

It is essential that physiotherapists be educated about KPIs to guarantee the delivery of high-quality healthcare services. The purpose of this literature study is to investigate the present level of knowledge and awareness that physiotherapists at hospitals in Saudi Arabia have about KPIs, as well as the consequences that this level of comprehension and awareness has on the overall quality of treatment.

KPIs in Healthcare

In the beginning, hospitals focused on key financial performance indicators KPIs like revenue, profit growth, and lowering costs. However, as healthcare transformed, the quality and outcomes of patients became important KPIs [9]. KPIs are used by hospitals to monitor progress, find places to enhance, and make decisions based on data. Quality indicators are a collection of metrics that are used to assess the quality of healthcare services offered by experts in the medical field, such as physical therapists. The incorporation of quality indicators in the clinical work of physical therapists and the provision of healthcare services is a relatively new development that has received a lot of attention in recent years [11].

The need to improve patient outcomes, lower overall healthcare costs, and improve the overall quality of treatment has been a driving force behind the development of quality indicators in the practice of physical therapy and the delivery of health services. Applying quality indicators allows for the monitoring and evaluation of the efficacy, safety, and efficiency of physical therapy treatments, and they also assist in the identification of areas in which improvements may be made to the delivery of physical therapy services [12]. In the field of physical therapy, one of the key functions of quality indicators is to make certain that patients get treatment that is both evidence-based and focused on the needs of the individual patient. In order to analyze patient outcomes, assess the suitability of physical therapy treatments, and keep track of whether or not clinical practice standards are being followed, quality indicators are used [13].

In addition, [9] indicated that quality indicators are employed in the process of determining whether a certain physical therapy intervention is safe. This involves keeping an eye out for any untoward occurrences and determining how successful actions are at lowering the likelihood that patients may be harmed. The promptness with which treatment is provided and the use of available resources are two

examples of quality indicators that may be used to assess the efficacy of various physical therapy procedures. Indicators of quality are also significant components in the management of the provision of health care. They assist in identifying areas in which physical therapy services might be improved, such as the need for increased resources, the need for reforms in the delivery system, or enhancements in the instruction and training of physiotherapists.

The study by DiCostanzo, et al. stated that qualified healthcare physicists are part of the multidisciplinary medical care system and are devoted to assuring high-quality care with patient safety and enhancing treatment levels by following the standards of medical care [14]. The prime aim of the healthcare system is to offer effective and safe treatment to patients with the utmost standards and proficiencies. With the incorporation of technological advancements, healthcare treatment choices are also striving to enhance the safe provision of medical care. The study also highlighted that KPIs are a crucial aspect of effectively handling, assessing, and continuously enhancing the performance of healthcare facilities.

Lai, et al. Highlighted the comprehension of the views of the medical providers working in diverse departments about developing the key performance indicators. As the KPIs rely on the nature of the organization, each healthcare sector sets the KPIs as per their usefulness, significance ability to measure several aspects. Most of the providers working in the healthcare sector are not aware of the KPIs of the healthcare organization [15]. Therefore, this study highlights that healthcare organizations must involve physicians in the development and establishment of KPIs of hospitals so that their perception and understanding can be enhanced for better outcomes.

The study by Pang, et al. Indicated that acute care usually requires strict and relevant treatment, while most healthcare providers cannot precisely figure out the reason for the low efficiency in the treatment process due to the lack of productive tools [16]. The study state that KPIs are useful to assess the medical quality and indicate the facility from a single point; therefore, KPIs can be summed routinely, enhancing the work effectiveness at the hospitals. Abdel-Razik, et al. Stated that identifying the appropriate KPIs and establishing the measurements are crucial concerns [13]. In healthcare settings, the staff working is mostly uninformed about the pre-defined key performance indicators, which ultimately influence the overall performance of the healthcare setting. It is essential for the healthcare sector to involve the medical staff in setting the key performance indicators. The outcomes of the study stated that the involvement of the staff in establishing the KPIs improved healthcare outcomes and services. The findings of the study also asserted that primary healthcare facilities attained a positive response based on the involvement and suggestion of medical staff in the action-based intervention, which enhanced their level of performance.

Burlea-Schiopoiu & Ferhati indicated that a culture of continuous improvement is supported by continuous monitoring and analysis of KPIs in healthcare organizations. This culture enables healthcare providers to recognize problems with efficiency and formulate strategies to constantly enhance the care they provide and improve patient and general performance of healthcare provision. In a nutshell, KPIs are essential measurements that assist healthcare professionals in improving their performance and accomplishing their goals.

Another study by Urimubenshi, et al. Conducted research in the field of stroke treatment and has conclusively shown a close connection between KPIs and patient outcomes [17]. For instance, research has shown that quicker door-to-needle times relate to improved outcomes for patients, such as lower death rates and higher levels of functional capacity. Similarly, research has demonstrated that prompt delivery of interventional therapy and intravenous thrombolysis is related to enhanced patient outcomes and an overall improvement in the quality of care provided. In care delivery, researchers have discovered that additional KPIs, in addition to the amount of time it takes for patients to get treatment, are also connected with patient outcomes. These KPIs include release direction, rehospitalization, and duration of stay. For instance, research has shown that patients who are sent to a rehabilitation center have better functional results than those who are released either back home or to a facility that provides long-term care.

Importance of KPIs in Physiotherapy

The study by Ishak stated that the provision of technology in physiotherapy facilities is highly important for the rehabilitation of stroke victims, and as per the findings of the research, the accessibility of equipment at the medical facility was generally satisfactory, with the majority of the equipment being both accessible and in excellent operating condition [18]. The study also highlighted that adequate staffing levels in physiotherapy facilities are essential for the rehabilitation of stroke patients, and the research indicates that the hospital must increase the number of physiotherapists it employs to lessen the strain on the current staff and improve treatment for patients.

According to the findings of the research, patient outcomes are an essential component to consider when evaluating the efficiency of physiotherapy settings. According to the findings of the research, the hospital had positive patient outcomes, with most patients reporting an improvement in their functional level and a reduction in pain because of getting physiotherapy. This demonstrates the efficacy of the physiotherapy spaces available at the hospital in facilitating the rehabilitation of stroke victims.

KPIs are very important in the field of physiotherapy for a number of reasons, including the evaluation of the efficacy of various treatment approaches, the promotion of accountability, and the enhancement of patient outcomes. Physiotherapists can make more educated choices about their practices, improve the quality of the treatment they deliver to their patients, and ultimately achieve these goals by monitoring and evaluating KPIs [19]. Using KPIs is an excellent way for physiotherapists to evaluate the efficacy of therapeutic measures. Physiotherapists can assess the efficacy of different therapy modalities and track the development of their patients more effectively if they first create objectives that are both clear and quantifiable. Physiotherapists are able to discover areas that might need work, modify their methods, and ultimately achieve better outcomes when they keep track of these indications [20].

Improving the Patient's Level of Participation

The level of participation of the patient is one of the most important contributors to the effectiveness of physiotherapy treatment. It is possible to get significant insight into how successfully a practice is engaging its patients by analyzing KPIs linked to patient engagement, such as attendance rates, adherence to home exercise regimens, and patient satisfaction ratings. Physiotherapists may find chances to enhance

communication, education, and motivating tactics by monitoring these variables, which ultimately leads to improved results and a more favorable patient experience [21].

Enhancing the Effectiveness of the Clinic

KPIs relating to clinic operations, such as appointment scheduling, wait times, and billing accuracy, are significant for determining the effectiveness of physiotherapy practice. The practitioners are able to detect bottlenecks, simplify processes, and optimize resources via the analysis of these indicators. Not only does this lead to increased levels of patient satisfaction, but it also frees up more time and resources for physiotherapists, enabling them to better fulfill their core role of delivering great treatment to patients [22].

Promoting Accountability and Professionalism

Monitoring KPIs promotes openness and responsibility among physiotherapists, clinic staff, and administrators, each of which is important for a professional environment. Reviewing performance indicators on a regular basis may assist in determining areas of both strength and weakness, which paves the way for more focused professional development and advancement. This procedure encourages a culture of continuous development, making it possible to guarantee that physiotherapy treatments continue to adhere to evidence-based procedures and meet high standards of care [19].

Enabling Evidence-Based Practice

Evidence-based practice is made easier with the use of KPIs, which also play a crucial part in support of evidence-based practice in physiotherapy. Physiotherapists can recognize patterns, make educated judgments regarding treatment options, and contribute to the profession's body of knowledge when they systematically collect and analyze data on the results of therapy. Using an approach that is driven by data helps physiotherapists to improve their clinical practice and, as a result, provide treatment that is both more effective and more efficient [22].

Enhancing Collaboration and Communication

KPIs have the potential to improve interaction and interaction between physiotherapists and other healthcare providers. Physiotherapists can better assess the effectiveness of their treatments on patient outcomes and collaborate with other healthcare professionals to establish complete, multidisciplinary care plans when they share their performance data with one another. This approach to collaboration has the potential to lead to better clinical results for patients and a smoother overall healthcare experience [6].

Bird, et al. Carried out the research, and three emergency departments (EDs) in Australia were outfitted with main contact physiotherapy services [23]. Patients who arrive at these emergency departments with musculoskeletal disorders are treated by physiotherapists who have been trained to offer first-contact treatment. The purpose of the research was to gather information about waiting times, treatment times, and results for patients who presented with musculoskeletal disorders both before and after the main contact physiotherapy services were put into place. According to the findings of the research, the

introduction of primary access physiotherapy services led to a significant cutback in the amount of time patients had to wait to be seen for treatment of their musculoskeletal disorders [23].

KPI Awareness among Physiotherapists

The cross-sectional study by Driver et al. found that physiotherapists have adequate comprehension of the significance of utilizing KPIs in physiotherapy practice. They thought that the use of KPIs was crucial to the improvement of patient care, the promotion of evidence-based practice, and the monitoring of the impact of their treatments. Physiotherapists were also knowledgeable about the many kinds of KPIs that are used in the practice of physiotherapy. These KPIs include clinical, economic, and patient contentment KPIs.

Additionally, the research by Driver, et al. Also uncovered several obstacles that stand in the way of the productive use of KPIs in physiotherapy practice [24]. These obstacles included a lack of time, money, and support from management, in addition to a lack of training and instruction on how to make effective use of KPIs. Physiotherapists also indicated that KPIs were often too complicated and not relevant to their practice, which made it challenging to use them effectively. The research also discovered that physiotherapists had varying perspectives on the use of KPIs in physiotherapy practice. KPIs were seen by some physiotherapists as a helpful tool for enhancing the quality of treatment provided to patients and fostering evidence-based practice. On the other hand, some people considered KPIs as nothing more than a bureaucratic necessity that increased the amount of work, they had to do without improving the quality of treatment for the patient.

Westby, et al. Indicated that, like other professions of healthcare, physiotherapists also shift from quantity-centered care to quality-based care [25]. It is progressively significant for both private and government to have some measures of effectiveness before providing the treatment. In the US, with the radical shift towards quality care, healthcare physicians mostly focused on the established healthcare standards. Several non-profit and public organizations highlighted the need for change in the practices of physiotherapists. The study indicated that several quality enhancement reporting systems are operating the countries such as the United Kingdom, Canada, Australia, and other European nations.

The physiotherapist can employ the QIs to offer quality care in their medical practice. The evidence from the previous most of medical concentrated quality improvement initiatives indicates that the execution of QIs results in enhancement in the health outcomes of the patients and enhanced accessibility to medical care. For example, the developed KPIs for low back pain indicated that better compliance with the Dutch Physical Therapy guidelines for low back pain was related to the less intensity of pain, disability, and treatment costs. Moreover, the execution of the low rehabilitation QIs in acute stroke care resulted in fewer complications and enhanced patient health and early discharge from the hospitals [25].

Research Approach

This research work is based on the quantitative research approach. Quantitative research is a structured approach to inductive inquiry that concentrates on the gathering, evaluation, and interpretation of statistical information. This strategy is founded on the positivist paradigm, which is based on the assumption that existence is objective and that it is possible to measure and quantify it. The goals of

quantitative research are to identify correlations, validate hypotheses, and develop generalized predictions regarding occurrences by employing statistical tools. This research study made use of the primary data method technique to gather data from personal experiences for the purpose of doing additional analysis and providing an interpretation of the findings.

Research Design

This research study is quantitative in nature and follows a cross-sectional research design. This means that this study involves collecting and analyzing the numerical data to answer the research questions. This study utilized cross-sectional and collected samples from the physiotherapists at the time to comprehend their awareness level about the KPIs at their hospitals. The cross-sectional design is useful for obtaining the views of the current state of the research topic, but it does not permit the examination of the changes or trends over time. This research follows the primary method of data for collecting firsthand time from the participants.

Sampling Strategy & Setting

The target population for this study is all the 6028 physiotherapists working in private and public hospitals in Saudi Arabia. A convenience sample of 310 physiotherapists working in private and public hospitals in Saudi Arabia participated in the study with response rate 83%. Convenient sampling of was employed to target the participants for the data collection.

Sample Size and Technique

The target population of this research study are 6028 physiotherapists working in private and public hospitals in Saudi Arabia. According to (Saudi Commission for Health Specialties, 2023), the total number of physiotherapists is 6028. According to Thompson's equation for the calculation of sample size (Thompson, 2012), the sample size was 362 using the following equation:

$$n = \frac{[N \times p(1 - p)]}{\left[\left[N - 1 \times \left(\frac{d^2}{z^2} \right) \right] + p(1 - p) \right]}$$

$$n = \frac{[6028 \times 0.5(1 - 0.5)]}{\left[\left[6028 - 1 \times \left(\frac{0.05^2}{1.96^2} \right) \right] + 0.5(1 - 0.5) \right]}$$

$$n = 362$$

Were,

n: Sample Size (362)

N: Population Size (6028)

Z: Confidence Level at 95% (1.96)

d: Error Proportion (0.05)

p: Probability (05%)

The participation rate of this work is approximately 83% because 301 participants of the study have responded to the survey among the total sample size of 362.

Participation Rate= Total Number of Survey Responses/Sample Size*100

Participation Rate=301/362*100 = 83%

Data Collection Instrument

This research study is centered on primary data analysis, and the data is gathered through a questionnaire. The instrument for the data collection is a self-administered questionnaire that is generated through an extensive review of the literature. The online Google form method is used for the collection of data. The questionnaire was developed through google forms, and an online link was shared with the participants of the study before taking their consent and willingness to fill out the survey. The Likert scale questionnaire was used, and multiple suitable analysis methods were used in this work. The Google form method was used for the collection of the data by sending the link to the participants through email or WhatsApp. The targeted population of this study is the whole population of the KSA; that is the reason we used the online link of Google form for the collection of the data.

Study Tools

It consisted of the following three parts:

1. Socio-demographic Characteristics: Socio-demographic characteristics refer to the individual attributes and characteristics of a population, such as age, gender, race/ethnicity, education level, income, occupation, and marital status. These factors can be used to describe and understand a population's social and economic status and can play a role in shaping attitudes, behavior, and health outcomes. Socio-demographic information is commonly used in research and policy analysis, as well as in marketing and demographics.
2. Awareness of Physiotherapists about KPIs (Likert Scale Questions).
3. Awareness of Physiotherapists about KPIs (Open-Ended Questions): Open-ended questions are questions that allow respondents to provide a free-form answer rather than selecting from a pre-determined set of options. Open-ended questions are often used in qualitative research, such as interviews or focus groups, to gather rich, detailed information about a subject's experiences, thoughts, and opinions. They allow for greater flexibility in the types of responses that can be collected and often provide more in-depth insights into a subject's perspective.

Inclusion Criteria

They currently working physiotherapists in private and public hospitals in Saudi Arabia. Saudi and non-Saudi physiotherapists.

Exclusion Criteria

The retired physiotherapists who are working on the contract cannot be considered as the respondents in the survey.

Data Analysis

Data is assessed by employing statistical software, including MS Excel and SPSS. The data cleaning and coding are done using MS Excel, which is used to change the data from qualitative to quantitative form. Data coding aids in transforming judgment-based data into a numerical and more coherent form. The data was cleaned, which aided in eliminating the outliers and extraneous data from the gathered data set. Data

was transferred into SPSS, which analyzed the data by applying several techniques. Cronbach's alpha was employed to measure the data's internal consistency and direction of the variables towards the latent variables. Moreover, multivariate analysis was applied to lessen the volume of the collected data for more precise and accurate results. Descriptive statistics and summary statistics were applied to analyze and interpret the final outcomes of the research study.

Summary Statistics

Data is summarized, sorted, and interpreted with the help of descriptive statistics, a form of quantitative research technique. The purpose of descriptive statistics is to provide a generalized summary of a data set. They characterize the sample by revealing its central tendency (mean, median, and mode) and dispersion (standard deviation, variance, range, and quartiles). Descriptive statistics were used to describe and visually display enormous quantities of information in a way that is accessible to a wide audience. The results of this kind of statistical analysis let the researcher draw conclusions, make demographic comparisons, and anticipate future outcomes. The purpose of descriptive statistics is to characterize a data collection by describing its characteristics, such as the frequency of occurrence or the distribution of a given variable. A data set's variability may be examined using descriptive statistics, and outliers or groups with unique features can be singled out. Descriptive statistics are an invaluable method for gaining insight from raw data. Comparing demographics and forecasting future results are two uses for descriptive statistics [26].

Multivariate Analysis

Several variables are examined in a single statistical study using multivariate analysis, and by studying many variables simultaneously, the researcher can observe the patterns and connections that could otherwise go overlooked when evaluating a single individual factor in a complicated system. The multivariate analysis was also used to find associations between variables that would have been otherwise difficult to find. Multivariate analysis has been employed in studies to forecast future results and identify the impact of several factors on a single outcome. As a result of using multivariate analysis, researchers were able to better comprehend the interplay between the various variables and so pinpoint and fix any issues that may have been lurking in the background [27].

In addition, the principal component analysis (PCA) was used to reduce a large collection of variables to a smaller set of variables that explained most of the variation in the original set. Exploratory data analysis often makes use of principal component analysis (PCA), a dimensionality reduction approach, to spot trends, display information, and zero in on key variables. PCA is used to decrease the dimensions of huge datasets, which improves computing efficiency and simplifies data analysis. It is a potent tool for identifying data sets and gaining significant insights from the data. In machine learning, PCA is used to minimize the number of variables and improve the precision of models using techniques like clustering [27]. Moreover, factor analysis was used to probe the interconnections of several independent variables. It is implemented to identify a handful of variables that best account for the observed variation [27].

Research Validity and Reliability

The pilot study was performed on ten physiotherapists who were excluded from the sample size to assess

the validity and reliability of the questionnaire and detect any ambiguity in the tool and clarify the items, as well as to determine the time consumed to fill the questionnaire. Necessary modifications were carried out to develop the final form of the tool and reliability was measured with acceptable Cronbach's α (71%).

Ethical Conversation

This research work significantly considers the ethical considerations for conducting the research. The researcher got approval from the IRB committee of the Saudi Electronic University to conduct this research (REC Number: SEUREC-4433). The researcher obtained informed consent from the participants of the study before conducting the study, and only those participants were included, which showed a willingness to fill the research gap. This research study ensured that the confidentiality of the participants is protected; this includes maintaining the anonymity of participants unless explicit consent is obtained to use their identifying information. Researchers also ensure that any data collected is kept secure and only shared with those who have a legitimate need to access it. Participants were clearly provided with concise information about the study, its purpose, and its benefits. Researchers also ensured that any data collected is kept secure and is only shared with those who have a legitimate need to access it. The researcher also ensured that the study was conducted in a fair and just manner and that the rights and interests of all participants were respected. This may involve ensuring that the study is conducted in a way that is transparent and accountable and that participants are treated with dignity and respect. The researcher also ensured that data was collected authentically and that there was no false information considered in this study.

Results

This research work is related to finding the awareness of physiotherapists about KPIs at hospitals in Saudi Arabia. This research work is based on primary data analysis, and the data has been collected by using the online survey method. Data was gathered from the 310 physiotherapists regarding their level of awareness about the KPIs.

Demographic Analysis

The results of the demographic analysis are presented below, extracted with the help of frequency and percentage analysis by using MS-Excel 16, (Table 1).

Parameters	Frequency (%)	
Age (In Years)		
29-39 Years	108	36
40-50 Years	75	25
Less than 29 Years	82	27.3
More than 50 Years	35	11.7
Mean \pm SD	35.18\pm07.29	
Gender		
Female	152	50.3
Male	149	49.7

Nationality		
Not Answer	4	1.3
Non- Saudi	119	39.7
Saudi	177	59
Current Job Position		
Not Answer	1	0.3
Head of Physiotherapy Department	67	22.3
Junior Physiotherapist	72	24
Other	20	6.7
Senior Physiotherapist	140	46.7
Experience		
Not Answer	2	0.7
1-5 years	121	40.3
6-10 years	97	32.3
Less than 1 year	41	13.7
More than 10 years	39	13
Currently Work		
Not Answer	1	0.3
Other	22	7.3
Private hospital	151	50.3
Public hospital	126	42

Table 1: Distribution of the Participants According to Socio-Demographic Characteristics.

The above-mentioned Table 1 indicates the results extracted based on the demographic questions asked of the participants. The above figure shows the share of the age of participants, and it has been indicated that 36% of the participants belong to the 29-39 years, while 25% of the participants belong to the 40-50 years of age group. In addition, 27% of the participants belong to less than 29 years, and 12% belong to more than 50 years of age. The above-mentioned indicates that the results were extracted based on the demographic questions asked of the participants. The above figure shows the share of the gender of participants, 50% of the participants are males, and 50% are females. The results were extracted based on the demographic questions asked of the participants. The above figure shows the nationality of participants, 59% of the participants are Saudis, 40% are non-Saudis, and 1% did not answer. The above-mentioned results were collected based on the demographic questions asked of the participants. The above figure shows the current job position of the physiotherapists, and the results indicate that 22% of the participants are heads of the physiotherapist's department, 24% of the participants are Junior physiotherapists, 47% of the participants are senior physiotherapists, 7% of the participants specified distinctly regarding their position as a physiotherapist. The above results also indicate the working experience of the participants as a physiotherapist in the healthcare sector. The results show that 40% of participants have 1 to 5 years of experience, 32% of participants have 6 – 10 years of experience, 14% of participants have less than 1 year of experience, and 14% of participants have more than 10 years of working experience and 1% of participants did not respond to this question. The above Table also indicates

the type of hospital of the participants as a physiotherapist working. The results show that 51% of participants are working in private hospitals, 42% of participants work as physiotherapists in public hospitals, and 7% of the participants are working in other than private and public sectors.

Awareness of Physiotherapists about KPIs						
1. I am Familiar with the Concept of KPIs at Hospitals.	4 (1.3)	8 (2.7)	10 (3.3)	164 (54.7)	111 (37.0)	3 (1.0)
2. KPIs are used Effectively in Evaluating the Performance of Physiotherapy Departments in Hospitals.	2 (0.7)	4 (1.3)	19 (6.3)	176 (58.7)	98 (32.7)	1 (0.3)
3. KPIs can be used to Improve the Quality of physiotherapy Services in Hospitals.	1 (0.3)	3 (1.0)	9 (3.0)	170 (56.7)	117 (39.0)	0 (0.0)
4. KPIs can be Used to Improve Communication and Collaboration between Physiotherapy Departments and other Departments in Hospitals.	1 (0.3)	7 (2.3)	15 (5.0)	151 (50.3)	126 (50.3)	0 (0.0)
5. I believe that the use of KPIs can lead to better patient outcomes.	1 (0.3)	4 (1.3)	10 (3.3)	149 (49.7)	135 (45.0)	1 (0.3)
6. I find it Easy to Access and Understand the KPIs Used in my Workplace.	4 (1.3)	15 (5.0)	21 (7.0)	142 (47.3)	114 (38.0)	4 (1.3)
7. I have Regular Access to the Data and Reports Associated with the KPIs used in my Workplace.	4 (1.3)	17 (5.7)	25 (8.3)	142 (47.3)	110 (36.7)	2 (0.7)
8. I believe that the KPIs used in my workplace accurately reflect the performance of the Physiotherapy Department.	0 (0.0)	9 (3.0)	17 (5.7)	135 (45.0)	139(46.3)	0(0.0)
9. It is important for physiotherapists to be aware of and use KPIs in their Practice.	0(0.0)	4(1.3)	7(2.3)	161(53.7)	124(41.3)	4(1.3)
10. I believe that the use of KPIs can lead to improved job satisfaction among physiotherapists.	0(0.0)	4(1.3)	16(5.3)	154(51.3)	124(41.3)	2(0.7)
11. I believe that the KPIs used in my workplace are relevant to the physiotherapy practice.	0(0.0)	5(1.7)	16(5.3)	139(46.3)	136(45.3)	3(1.0)
13. I believe that the use of KPIs leads to improved efficiency in the physiotherapy department.	0(0.0)	2(0.7)	15(5.0)	158(52.7)	122(40.7)	3(1.0)

14. I am aware of the specific KPIs currently used to assess the performance of physiotherapy departments in hospitals.	1(0.3)	10 (3.3)	16(5.3)	160(53.3)	113(37.7)	0(0.0)
Weighted Mean \pm SD	4.57 \pm 0.80					

Table 2: Distribution of the participants according to Awareness of Physiotherapists about KPIs (n=301).

Frequency and Percentage Analysis of Observed Variables Awareness of Physiotherapists about KPIs

The results of the above Table-2 indicated that the majority of the participants agreed with the statements. This shows that 55% of the participants were familiar with the concept of KPIs at Hospitals. In addition, 37% of the participants strongly agreed that they were aware of the KPIs, while 3% of the participants disagreed, and 1% disagreed. Overall, the results show that the majority of physiotherapists are sufficiently aware of the Key Performance Indicators. The results of the above Table-2 indicated that the majority of the participants agreed with the statements. This shows that 59% of the participants agreed that KPIs are used effectively in evaluating the performance of physiotherapy departments in hospitals. In addition, 33% of the participants strongly agreed that hospitals employ KPIs effectively to assess performance, while 1% of the participants disagreed, and the other 1% strongly disagreed. Overall, the results show that the majority of physiotherapists strongly agreed that KPIs are used effectively in evaluating the performance of physiotherapy departments in hospitals. The results of the above Table-2 also indicated that the majority of the participants agreed with the statements.

This shows that 57% of the participants agreed that KPIs can be used to improve the quality of physiotherapy services in hospitals. In addition, 39% of the participants strongly agreed that the performance and quality of the physiotherapist's services could be improved by employing KPIs, while 1% of the participants disagreed, and the other 1% strongly disagreed. Overall, the results show that the majority of physiotherapists strongly agreed that KPIs are effective tools to enhance the quality of physiotherapists' services in hospitals. The results of the above Table-2 indicated that the majority of the participants agreed with the statements. This shows that 51% of the participants agreed that KPIs could be used to improve communication and collaboration between physiotherapy departments and other departments in hospitals. In addition, 42% of the participants strongly agreed while 2% of the participants disagreed, and other 0% strongly disagreed. Overall, the results show that the majority of physiotherapists strongly agreed that KPIs can be used to improve communication and collaboration between physiotherapy departments and other departments in hospitals. The results of the above Table-2 indicated that the majority of the participants agreed with the statements. This shows that 50% of the participants agreed that the use of KPIs can lead to better patient outcomes. In addition, 45% of the participants strongly agreed while 1% of the participants disagreed, and other 0% strongly disagreed. Overall, the results show that the majority of physiotherapists strongly believe that the use of KPIs can lead to better patient outcomes.

The results of the above Table-2 also indicated that the majority of the participants agreed with the

statements. This shows that 50% of the participants agreed that they found the KPIs utility easy to access and understand in their workplace. In addition, 45% of the participants strongly agreed while 1% of the participants disagreed, and other 0% strongly disagreed. Overall, the results show that the majority of physiotherapists strongly believed that they found the KPIs utility easy to access and understand in their workplace, which ultimately improved their services and patient outcomes. The results of the above Table-2 also indicated that the majority of the participants agreed with the statements. This shows that 47% of the participants agreed that they have regular access to the data and reports associated with the KPIs used in their workplace. In addition, 37% of the participants strongly agreed, while 6% of the participants disagreed, and another 1% strongly disagreed. Overall, the results show that the majority of physiotherapists strongly agreed that they have regular access to the data and Reports associated with the KPIs used in their workplace.

The results of the above table show that the majority of the participants agreed with the statements. This shows that 45% of the participants agreed that the KPIs used in my workplace accurately reflect the performance of the Physiotherapy Department. In addition, 46% of the participants strongly agreed while 3% of the participants disagreed, and other 0% strongly disagreed. Overall, the results show that the majority of physiotherapists strongly agreed that the KPIs used in my workplace accurately reflect the performance of the Physiotherapy Department. The results of the above table indicate that the majority of the participants agreed with the statements. This shows that 54% of the participants agreed. It is important for physiotherapists to be aware of and use KPIs in their practice. In addition, 42% of the participants strongly agreed, while 1% of the participants disagreed, and the other 1% strongly disagreed. Overall, the results show that the majority of physiotherapists strongly agreed that it is significantly necessary for physiotherapists to have awareness and utility of the KPIs in their physiotherapist's services and practices for better patient outcomes.

The results of the above Table-2 indicated that the majority of the participants agreed with the statements. This shows that 52% of the participants agreed that the use of KPIs can lead to improved job satisfaction among physiotherapists. In addition, 41% of the participants strongly agreed, while 1% of the participants disagreed, and the other 1% strongly disagreed. Overall, the results show that the majority of physiotherapists strongly agreed that the use of KPIs can lead to improved job satisfaction among physiotherapists. The results of the above Table-2 indicated that the majority of the participants agreed with the statements. This shows that 47% of the participants agreed that the KPIs used in my workplace are relevant to the physiotherapy practice. In addition, 45% of the participants strongly agreed, while 1% of the participants disagreed, and 0% strongly disagreed. Overall, the results show that the majority of physiotherapists strongly agreed that the KPIs used in my workplace are relevant to the physiotherapy practice. The results of the above Table indicated that the majority of the participants agreed with the statements. This shows that 52% of the participants agreed that they believe that the use of KPIs leads to improved efficiency in the physiotherapy department. In addition, 41% of the participants strongly agreed, while 1% of the participants disagreed, and 0% strongly disagreed. Overall, the results show that the majority of physiotherapists strongly agreed that the belief that the use of KPIs leads to improved efficiency in the physiotherapy department.

The results also show that the majority of the participants agreed with the statements. This shows that 54% of the participants agreed that they are aware of the specific KPIs currently used to assess the performance of physiotherapy departments in hospitals. In addition, 38% of the participants strongly agreed while 3% of the participants disagreed, and 0% strongly disagreed. Overall, the results show that the majority of physiotherapists strongly agreed that they are aware of the specific KPIs currently used to assess the performance of physiotherapy departments in hospitals.

Correlation Analysis (Table 3)

Variables	Awareness of Physiotherapists about KPIs	
	r/rho	P value
Age	0.636	0.007**
Gender	0.789	0.002**
Nationality	0.827	0.006**
Current Job Position	0.78	0.009**
Experience	0.822	0.004**
Currently Work	0.903	0.003**

Table 3: Correlation between the Study Respondents' Socio-Demographic Characteristics and Awareness of Physiotherapists about KPIs (n=301).

Note. Pearson's correlation coefficient used with quantitative continuous variables and dichotomous variables while Spearman's correlation coefficient used with other variables

*Correlation is significant at the 0.05 level (2-tailed).

**Correlation is highly significant at the 0.001 level (2-tailed).

Table 3 presents the correlation between the socio-demographic attributes of the participants in the study and their level of awareness regarding the key performance indicators (KPIs) associated with physiotherapists. The presented table displays the correlation coefficients (r/rho) alongside their respective p-values. The initial factor under scrutiny pertains to age, which exhibits a moderately positive correlation ($r = 0.636$) with the level of awareness that physiotherapists possess regarding KPIs. This implies a positive correlation between age and awareness, where an increase in age is associated with a corresponding increase in awareness. Moreover, the p-value of 0.007 denotes statistical significance of the correlation. The second variable under analysis is gender, which exhibits a robust positive correlation ($r = 0.789$) with the level of awareness among physiotherapists regarding KPIs.

This suggests that gender may be a contributing factor to the degree of awareness, as certain genders exhibit a greater level of awareness. The statistical significance of the correlation is supported by the p-value of 0.002. The subsequent variable under scrutiny is nationality, which exhibits a robust positive

correlation ($r = 0.827$) with physiotherapists' awareness of key performance indicators (KPIs). This proposition posits that the degree of awareness may be influenced by one's nationality, as certain nationalities exhibit greater levels of awareness. The statistical significance of the correlation is confirmed by the p-value of 0.006. The fourth variable under scrutiny pertains to the present occupational status of the participants. The findings reveal a robust and affirmative correlation ($r = 0.780$) between the said variable and the level of cognizance exhibited by physiotherapists concerning KPIs. This suggests that there may be a correlation between job position and level of awareness, as individuals occupying certain job positions exhibit higher levels of awareness. The statistical significance of the correlation is indicated by the p-value of 0.009. The fifth variable under scrutiny is experienced, which exhibits a robust positive correlation ($r = 0.822$) with physiotherapists' awareness of KPIs. This suggests that the degree of expertise could potentially impact the recognition of Key Performance Indicators (KPIs), as individuals with greater experience may exhibit heightened levels of awareness. The statistical significance of the correlation is confirmed by the p-value of 0.004. The variable "currently work" exhibits a significant positive correlation ($r = 0.903$) with physiotherapists' awareness of KPIs. The findings indicate a potential strong correlation between current employment status and level of awareness, as evidenced by a higher level of awareness demonstrated by individuals who are currently employed. The statistical significance of the correlation is indicated by the p-value of 0.003. To summarize, the table demonstrates that there are positive correlations between the awareness of physiotherapists about KPIs and various factors such as age, gender, nationality, current job position, experience, and employment status. The statistically significant p-values suggest that the awareness level of physiotherapists may be influenced by their socio-demographic characteristics, (Table 4).

Statistics			
		Do you receive training or education on the use of KPIs in physiotherapy practices?	Do you involve in the process of setting or reviewing the KPIs used in my workplace?
N	Valid	301	301
	Missing	0	0
Mean		1.21	1.2
Std. Deviation		0.41	0.404
Variance		0.168	0.163
Skewness		1.407	1.476
Std. Error of Skewness		0.141	0.141
Kurtosis		-0.022	0.181
Std. Error of Kurtosis		0.281	0.281

Table 4: Results of Summary Statistics (Factors Affecting Physiotherapists' Awareness of KPIs at Hospitals).

The results of Table 4 above show that the descriptive statistics of Factors Affecting Physiotherapists' Awareness of KPIs at Hospitals variables illustrate that most of the research participants agree with the

statements mentioned above because the value of the mean is highly close to the five values, which shows that the option of agreeing has appeared and is marked more than other given options. At the same time, the value of the standard deviation shows that the data is scattered from the value of the mean, (figure 1).

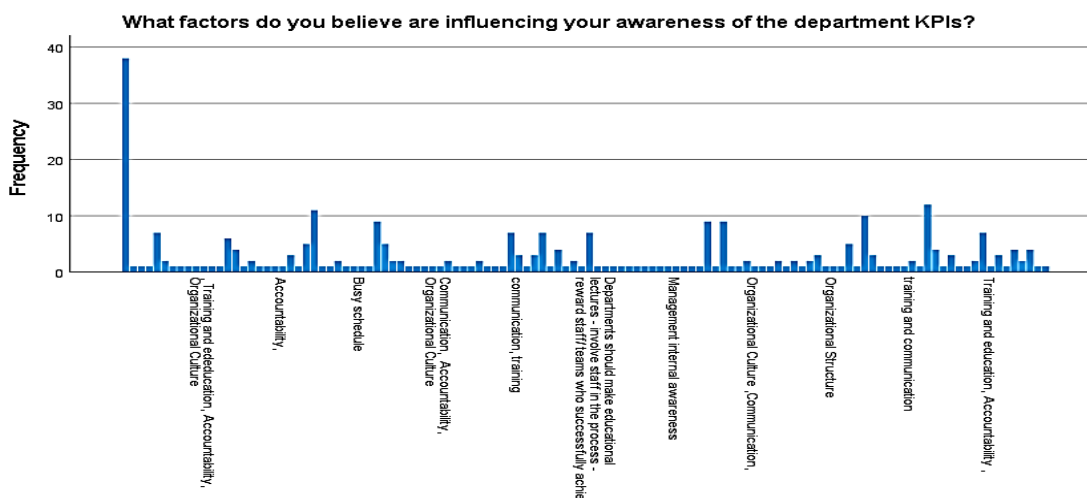


Figure 1: What factors do you believe are influencing your awareness of the department KPIs?

The above Figure-1 shows the results of the survey of open-ended questions asked of the participants. The different participants are answering this question in different ways. Some participants think that accountability and organizational culture are the major factors that affect the KPIs of the department. On the other hand, some participants think that organizational culture is the single factor that affects the department's KPI. According to results, training and education, revenue growth, training and education, accountability, communication, customer satisfaction, profit margin, and revenue per client are the leading factors that affect the department KPIs. Moreover, the distribution of regular statistics, management internal awareness, along with some other factors are also the leading factors that affect the department KPIs. It shows that the different participants think that different factors affect the department KPIs.

Discussion

This research work aimed to find the Awareness of Physiotherapists about KPIs at hospitals in Saudi Arabia. The outcomes of the research relate and match with the findings of the previous research studies because multiple researchers represented the same findings of the study while several studies represented contradicting outcomes. The outcomes of the current work found that the majority of physiotherapists have awareness regarding the utility of the KPIs in their physiotherapist services. The findings of this research work showed that the utility of the KPIs in the physiotherapist's departments improved the quality of physiotherapists' services, enhanced patient outcomes, and increased the level of job satisfaction of the physiotherapists. Moreover, the outcomes of this research work also indicated that in Saudi Arabia, the majority of the physiotherapists employed the KPIs and effectively evaluated their performance, which ultimately improved the performance of the physiotherapists. The previous

study performed by Driver, et al. Found that physiotherapists have adequate comprehension of the significance of utilizing KPIs in physiotherapy practice [24]. They thought that the use of KPIs was crucial to the improvement of patient care, the promotion of evidence-based practice, and the monitoring of the impact of their treatments. Physiotherapists were also knowledgeable about the many kinds of KPIs that are used in the practice of physiotherapy.

Conversely, the study by Henker, et al. Stated that awareness regarding quality assurance is upsurging among physicians in hospitals in developing nations as well [28]. The medical staff are the principal forces behind the improvement in the quality of care, but the challenging aspect is that they perceive the performance indicators as the resource-limited aspect. In addition, according to Pishnamazzadeh, et al. using KPIs is an excellent way for physiotherapists to evaluate the efficacy of therapeutic measures [19]. Likewise, according to the findings of the research by Ishak, the hospital had positive patient outcomes, with most patients reporting an improvement in their functional level and a reduction in pain because of getting physiotherapy [18]. This demonstrates the efficacy of the physiotherapy spaces available at the hospital in facilitating the rehabilitation of stroke victims.

Abdel-Razik, et al. Underlined that in the field of physical therapy, one of the key functions of quality indicators is to make certain that patients get treatment that is both evidence-based and focused on the needs of the individual patient [13]. In order to analyze patient outcomes, assess the suitability of physical therapy treatments, and keep track of whether or not clinical practice standards are being followed, quality indicators are used. Similarly, Bird, et al. Carried out the research, and according to the findings of the research, the introduction of primary access physiotherapy services led to a significant cutback in the amount of time patients had to wait to be seen for treatment of their musculoskeletal disorders [23]. The installation of primary access physiotherapy services led to a considerable decrease in treatment times for patients presenting with musculoskeletal disorders, the study revealed. This was one of the main takeaways from the research.

Conversely, the research by Driver, et al. Also uncovered several obstacles that stand in the way of the productive use of KPIs in physiotherapy practice [24]. These obstacles included a lack of time, money, and support from management, in addition to a lack of training and instruction on how to make effective use of KPIs. Physiotherapists also indicated that KPIs were often too complicated and not relevant to their practice, which made it challenging to use them effectively. On the other hand, Westby, et al. demonstrated that the execution of QIs results in enhancement in the health outcomes of the patients and enhanced accessibility to medical care [25]. For example, the developed KPIs for low back pain indicated that better compliance with the Dutch Physical Therapy guidelines for low back pain was related to the less intensity of pain, disability, and treatment costs. Moreover, the execution of the low rehabilitation QIs in acute stroke care resulted in fewer complications and enhanced patient health and early discharge from the hospitals.

Conclusion

This research work is based on a quantitative approach and follows the descriptive research design. This research employed primary data analysis, and the data collection method was an online survey. This

Research study is quantitative in nature and follows a cross-sectional research design. This study utilized the cross-sectional and collected the sample from the physiotherapists at the time to comprehend their awareness level about the KPIs at their hospitals. The target population for this study is all the 6028 (362) physiotherapists working in private and public hospitals in Saudi Arabia. convenience sampling was employed to target the participants for the data collection. This research study is centered on primary data analysis, and the data is gathered through a questionnaire. A self-constructed questionnaire was used to collect data from the target population, following a broad review of the relevant literature. To collect the data, a Google form was used, and the participants were required to provide informed consent before participating. Only participants who willingly consent to participate will be considered for the study. An online link was generated and shared with the research participants to access the questionnaire. The collected data was examined using statistical software such as SPSS and MS Excel. SPSS, in the form of statistical packages, was used for data analysis, employing multiple techniques. MS Excel was utilized for data coding and cleaning to transform the data from qualitative to quantitative form. Data coding converted opinion-based data into a more comprehensible numerical form. Data cleaning removed irrelevant data and outliers from the collected dataset. The internal reliability of the data was measured using Cronbach's alpha, which measures the variables' direction towards the latent variable. Multivariate analysis techniques were employed to reduce the data's volume and size. Summary statistics were used to transform the data along with the frequency analysis.

The outcomes of the research relate and match with the findings of the previous research studies because multiple researchers represented the same findings of the study while several studies represented contradicting outcomes. The outcomes of the current work found that the majority of physiotherapists have awareness regarding the utility of the KPIs in their physiotherapist services. The findings of this research work showed that the utility of the KPIs in the physiotherapist's departments improved the quality of physiotherapists' services, enhanced patient outcomes, and increased the level of job satisfaction of the physiotherapists. Moreover, the outcomes of this research work also indicated that in Saudi Arabia, the majority of the physiotherapists employed the KPIs and effectively evaluated their performance, ultimately improving the performance of the physiotherapists.

Recommendations

Several general recommendations can be proposed to enhance the knowledge of physiotherapists regarding KPIs in hospitals in Saudi Arabia. Initially, it is crucial to underscore the pertinence and importance of KPIs within the field of physiotherapy. Targeted educational campaigns can be utilized to emphasize the significance of KPIs in enhancing patient care, allocating resources efficiently, and improving the overall quality of healthcare. Tailoring campaigns to the specific needs and learning preferences of physiotherapists is crucial and can be achieved through a diverse range of formats, including workshops, seminars, online resources, and peer-to-peer learning opportunities. Furthermore, it is imperative that professional associations and regulatory entities work in tandem to establish unambiguous directives and optimal practice suggestions regarding the utilization and explanation of KPIs Within the field of physiotherapy. It is imperative that the aforementioned guidance be distributed extensively and made readily accessible to all physiotherapists in order to establish a uniform and empirically grounded methodology for the implementation of KPIs within the profession.

Thirdly, the establishment of a supportive organizational culture that places significance on the utilization of KPIs in clinical practice is of utmost importance. It is recommended that hospital management should foster a conducive atmosphere that motivates physiotherapists to interact with KPIs, solicit feedback, and proactively engage in initiatives aimed at enhancing quality. The implementation of dedicated KPI committees or working groups, along with the allocation of adequate resources for KPI monitoring and evaluation, may be necessary. Facilitating collaboration and communication among physiotherapists and other healthcare professionals is imperative to optimize the advantages of Key Performance Indicator (KPI) implementation. Through promoting interdisciplinary discourse, physiotherapists can acquire knowledge from the experiences of professionals in other fields and offer their distinct viewpoints on the continuous advancement and enhancement of KPIs in healthcare environments.

In order to overcome the constraints of the present study and to enhance the comprehension of physiotherapists' knowledge regarding KPIs in Saudi Arabia, a number of suggestions for prospective research can be put forward. To enhance the validity of future research, it is recommended that more rigorous sampling methods, such as stratified or random sampling, be utilized. This will ensure that the sample accurately reflects the larger population of physiotherapists within the country. Furthermore, the integration of mixed-methods research designs, which encompass the gathering of both quantitative and qualitative data, would furnish a more all-encompassing comprehension of the determinants that impact physiotherapists' cognizance of KPIs. Qualitative research techniques, such as conducting interviews or organizing focus groups, may be employed to investigate the fundamental causes for the observed degree of consciousness, as well as the possible obstacles and enablers to the implementation of KPIs in clinical settings.

Subsequently, it is recommended that forthcoming studies should delve into the influence of contextual variables, such as the type of hospital, level of managerial assistance, and accessibility of resources, on the development of physiotherapists' comprehension and utilization of KPIs. The aforementioned would yield significant perspectives regarding the wider systemic elements that could impact the execution of KPIs within healthcare environments. Finally, conducting comparative analyses that investigate the level of awareness and utilization of KPIs among diverse healthcare practitioners may facilitate the identification of optimal strategies and foster interdisciplinary cooperation in the assessment and enhancement of healthcare quality. By gaining insight into the viewpoints of diverse healthcare professionals, scholars can facilitate the advancement of a more unified and harmonious strategy for Key Performance Indicator implementation within healthcare environments.

Limitations of the Study

This research study is limited to healthcare physiotherapists in Saudi Arabia; therefore, the results may not be generalizable to other healthcare professionals or sectors. The study is subject to potential biases, including social desirability and recall bias, due to its reliance on self-reported data provided by the participants. The presence of biases has the potential to impact the precision of the reported degree of awareness and comprehension of KPIs among physiotherapists.

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