Identifying the Factors Affecting the Productivity of the Nursing Service: Applied Research at Khalis General Hospital

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Abstract: Measure the productivity of nursing services and identify the reality of providing these services in Khalis General Hospital , as well as identifying the most important factors affecting the productivity of nursing services . The scale developed by the researcher was adopted (Kien, 2012 Which includes seven factors (manpower, management team, motivation, pressure of working hours (time), materials/equipment, supervision, safety), Use the experimental method In research, it is one of the methods for scientific research It relies primarily on scientific experimentation and the study of a scientific topic or phenomenon , which provides an opportunity to know the facts through these experiments . For the purpose of measuring the factors affecting the productivity of nursing services, the research included a sample of nurses working in Al- Khalis General Hospital . As for the research sample, a group of male and female nurses working in the field of providing nursing services to the hospital under study was selected. They numbered (181) male and female nurses, and (80) forms were retrieved , equivalent to (44%) of them . The scale was subjected to validity and reliability tests, and many statistical methods were used, such as factor analysis, arithmetic mean, standard deviation, T-test , and the Kaiser -Meyer-Olkin exploratory scale. Kaiser - Meyer - Olkin) and Bartlett 's test Which measures correlations between variables as well as the Mann-Whitney U test The significant differences between the answers of the nurses in the hospital studied , and using the statistical program (SPSS) The research reached a number of conclusions, perhaps the most prominent of which is that the approved distribution of the preparation of nurses to the various departments in this hospital is not appropriate to the needs of these departments, which has led to a high workload on some nurses, especially in the consultation and emergency departments, with the lack of appropriate incentives for nurses that match the tasks assigned to them. In addition، the wages granted to them do not equal the effort expended by them, and there are no opportunities given to them to develop their skills and complete their studies. All of this contributed greatly to the lack of motivation to work. The research recommended a number of recommendations, including the need to take into account the needs of each hospital department. of nurses and according to the number of sick patients present in each department in order to distribute the workload equally among all nurses in this hospital , in addition to reconsidering the rewards and incentives granted to them and granting them in a way that is compatible with the seriousness and volume of work within the hospital under investigation.

Keywords: productivity of nursing services, factors affecting productivity

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INTRODUCTION

rtant indicator and gives clear meanings to many organizations, as the extent Productivity is an impo to which the organization exploits its resources can be determined by measuring productivity , and production process, whether it was able to achieve high outputs that exceed the inputs used in the and because hospitals have their own characteristics in that they provide services, and what are the most prominent areas The improvement required for it, therefore, it is necessary to measure its indicators about the work provided because it is related to productivity to come up with important the lives of the people in it. It is also necessary to identify the obstacles that prevent the provision of e productivity of satisfactory services to patients, as well as identifying the factors that can affect th nurses within the hospital. Therefore, it has become necessary to study these factors and identify the obstacles that nurses face that directly affect their work in order to improve the productivity of d in this research, in addition to measuring partial productivity nursing work, which will be addresse in Khalis General Hospital.

The first axis/research methodology

. First : the research problem

tientsHospitals are service organizations that work throughout the day to provide services to pa with various specialties . Therefore, all patients' needs for health and nursing services must be adequately met, as well as the availability of sufficient medical and nursing personnel to cover these . quality services to patients. By nurses-needs, taking into account the provision of high

To the best of the researcher's knowledge and that he is one of the workers in one of these hospitals, - : the researcher posed the problem of the study in the form of the following questions

1. productivity of nursing services provided at Al Khalis General Hospital What is the level of

2. What are the most important factors affecting the productivity of nursing services in Al Khalis General Hospital

3. ctivity in nursing services, What are the factors that most constitute a reason for lack of produ among a number of factors (manpower, management team, motivation, pressure of working hours (time), materials/equipment, supervision, safety

4. it is fully Is the management of a hospital In general , the nursing affairs administration in aware of the factors affecting nursing productivity in this hospital

The importance of research :Second

: The importance of the study includes the following

other industrial and Health organizations, including hospitals, like : Importance the theory Search-1 service organizations, need to improve their performance and production capabilities, not only in order to enhance their position in the market, but also to achieve their goals efficiently. The e it deals with a very important topic in the life and level of importance of this research arises becaus . being of the individual and society-well

this is represented Importance _ In an attempt to draw the attention : Importance Field To search -2 inistration (decision makers) to the most important of supervisors of nursing staff and hospital adm problems facing these staff in order to improve the services provided by them, and the most important obstacles that prevent the provision of the best services, and to submit proposals and iate solutions to address these problems to improve the productivity of nursing develop appropr .services and achieve ... High level of satisfaction for the individual and society

Research objectives :Third

: The research mainly aims to achieve the following objectives

Measuring the productivity of nursing services and identifying the reality of providing these nursing . services in a hospital General conclusion

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Identifying the most important factors affecting the productivity of nursing services in a hospital . conclusion General

Identifying the obstacles or difficulties facing the provision of nursing services and raising them to . the levels required in a hospital General conclusion

.under investigation Identify the most important factors that affect service productivity in the hospital

Research methodology :Fourth

The experimental method in research is one of the methods for scientific research and was used relies primarily on scientific experimentation and the study of a scientific topic or phenomenon, des an opportunity to know the facts through these experiments. The purpose of this is to which provi define the causal relationships or relationships between the various phenomena related to the ,experiment and to predict them and control it ill also be adopted to The quantitative method w . measure the productivity of the nursing service at Khalis General Hospital

. The research population and sample :Fifth

Khalis -The research community includes a hospital affiliated with the Diyala Health Department (Al :ital), and it was chosen for the following reasonsGeneral Hosp

A large segment of society relies on the services provided by these hospitals in all aspects of .preventive, diagnostic, treatment and rehabilitation

la Governorate and ranks first in terms of clinical This hospital is one of the largest hospitals in Diya .capacity compared to other hospitals in Diyala Governorate

: Khalis General Hospital was selected , my agencies-at Al

Table 1: Research sample of nursing staff in the investigated hospital

Number of questionnaires distributed	Nursing staff	name of the hospital
80	181	Al Khalis General Hospital

Sixth: Characteristics of the research sample

indicates the characteristics of the research sample of male and female nurses as follows -Table 2

al characteristics of the research sample at Khalis General HospitalPerson -Table 2

percentage	the number	الفئة	Personal traits
%62.5	50	Male	Sex
%37.5	30	Females	
%57.5	46	5years or less	Length of service
%26.2	21	10 -6years	
%6.2	5	15 -11years	
%10	8	16years and over	
%0	0	Master	Educational attainment
%21.2	17	Bachelor's degree	
%28.7	23	Diploma	
%50	40	Preparatory and below	
%21.2	17	University Nurse	Job Title
%28.7	23	Nurse technician	
%50	40	Skilled nurse	
%21	80	Al-Khalis Hospital	Workplace

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Volume 2, No 11 |
Nov – 2023

while females ,(%5.It is clear from the table above that the large percentages of nurses are male (62 are (37.5%), while academic achievement was concentrated among those with a preparatory certificate or less (50%) and those holding a diploma certificate (28%) 7) It was followed by holders nd the number of years of service was for those who of a bachelor's degree, at a rate of (21.2%), a years, at a rate of (26.2%), 10-had 5 years or less, at a rate of (57.5%), and for those who had 6 followed by those who had 16 years or more, at a rate of (10%), and that it was higher. As for those years of age or less, the job title was skilled nurse, with a percentage of (50%), followed by 5 with technical nurse, with a percentage of (28.7), followed by university nurse, with a percentage of .(%21.2)

Seventh: Methods used in the research

) prepared by The standard (Kien, 2012 which includes seven factors (manpower, management ,(team, motivation, pressure of working hours (time), materials/equipment, supervision, safety), for the rvices. Partial productivity purpose of measuring the factors affecting the productivity of nursing se :(of nursing services will also be measured At Al Khalis General Hospital according to formula (1

$$PT = \frac{OT}{IT} \qquad \text{----------------------- (1)}$$

(Heizer & Render, 2014:15)

:ilityMeasuring honesty and reliab : Eighth

. Stability test -1

Reliability represents the extent to which consistency is achieved in the results of the scale, as it gives the same results after applying it twice at two different times to the same individual. Reliability Gronbach Alpha ing thewas calculated usmethod for internal consistency. This method depends on is (0.60). and the smallest acceptable value , the consistency of answers from one factor to another -he better it becomes (Aland the more it increases, t ,(0.8-The best acceptable value is between (0.7 To extract reliability according to this method, all questionnaires of the sample of . (Bayati, 2005: 50 Khalis General Hospital , which numbered (80), were used for each dimension of the -nurses in Al of the scale was (Gronbach scale. The reliability value's Alpha -for all of the questionnaire's thirty (nine items . (0.77) Thus, the measure for the sample of two patients is internally consistent , as **Table 3** shown in

Alpha Gronbach value for Khalis General Hospital	Dimensions
0.76	Manpower factor
0.78	Management team
0.73	Stimulus
0.70	Working hours pressure (time)
0.90	Materials/equipment
0.90	Supervision
0.83	safety
0.77	Total

2- Honesty test

sts and standards, especially Honesty is one of the necessary conditions necessary for constructing te since it indicates the extent to which the items measure the phenomenon to be measured, and one of especially ,the best ways to measure honesty is the content honesty method by peripheral comparison ethod based on arranging the results in descending or ascending order to be since it is a statistical m TEST test between-taken from The top data is 27% and the bottom data is 27%. Then we apply the T the average of the top and bottom quartiles , andthe T actor is as shown in calculated for each f value

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Volume 2, No 11 | Nov – 2023

Table (4), which means passing the content validity test for each of the factors and according to the answers of the nurses working in Al Khalis General Hospital.

Table 4: Results of the content validity test using the two-sided compar-ison method for the dimensions of the scale

Calculated T value for scale dimensions Al Khalis General General Hospital	factors
23.42	workforce
16.28	Management team
14.79	Stimulus
14.85	Pressure of working hours
20.43	Materials/equipment
24.24	Supervision
7.55	safety
Degree of freedom (41) at significance level (0.05) Tabular T value (2.42) Probability value Sig. (0.00)	factors

Ninth: border search

1. Spatial Boundaries : includes the border Spatial Search the hospital the public Researched in (Hospital the public in Diyala governorate). Sincere year.

2. Temporal Boundaries : extended search For the duration From (2/1/2016) to (6/14/2016) , which allocated To the side Practical To collect data And h-ire Interviews And views Field Necessary from search .

the research axis / the theoretical aspect

First: Defining productivity and productivity of nursing services .

Productivity is a measure of the relationship between out-puts and inputs. Or it is the ability to create outputs using specific production elements, or it is the value of the outputs divided by the value of the inputs (Mohsen and Al-Najjar, 2004, 220) , and labor productivity is measured in the simplest way by comparing outputs and inputs (Susilo ,2013: 203) . The productivity of nursing services represents a measure of the set of routine activities responsible for the nurse and carried out by him (Thabo, 2002, 2 or costs) e The patients Daily Productivity Nursing to a ratio hours Car . (This care is achieved in the form of salaries and benefits Paid for nurses from before Organization) , The Australian Department of Health has (Lisa defined nursing productivity as "the 2012, 6 relationship or ratio betw-een nursing inputs and relevant nursing outputs in the provision of health services, with a focus on strategies that contribute to raising the efficiency of nursing service by utilizing nurses' skills" (HealthWorkforceAustralia, 2014: 12) .

The researchers agree with the definition of the Australian Ministry of Health, which defined the productivity of nursing services (the relationship or ratio between nursing inputs and relevant nursing outputs in providing health services in a way that satisfies patient-s and improves their chances of recovery.

Second : Measuring the productivity of nursing services.

Nursing productivity includes two dimensions, quantitative productivity and quality of productivity (Nuseirat, 2008, 414):

Quantitative productivity and these measures include:

Number of people served.

.Total days of hospitalization

.Hospitalization days per bed, employee, nurse

.Family occupancy rate

.Hospital stay rate

.Number of medical cases per bed

Productivity ealth institution to provide services that are Quality refers to the ability of the h consistent with accepted and recognized professional standards and achieve patient satisfaction. of input due to the difficulty of collecting all types of inputs related type Usually, the focus is on one .alth servicesto he

There are global indicators used in health organizations, such as measuring the ratio of the number of patients to the number of nursing staff. This ratio indicates the nurse's share of patients during a ndicates a decrease in the time it takes to care for each patient by certain period of time. A high rate i nurses and vice versa, noting that the approved global average (6 : 1) That is, for every six patients is (1:1), meaning that there is a nurse responsible for their care, and in critical departments the ratio . (Taweel et al., 2010:9-every nurse Responsible for only one patient (Al

Given the difficulty of determining the causes of high or low productivity from a practical emerged, as it is measured by dividing standpoint, the interest and need for partial productivity has often Uses Managers Naimi, 2009: 51), and it is-the output by one factor of production (Al Operations , partial productivity to evaluate the performance of operations relative to one of the -Mohsen and Al) with the aim of taking corrective measures if necessary (production factors (inputs Najjar, 2004: 23). The Asian Productivity Organization has stated that it is the ratio of production to y is determined as a a resource, as it measures the productivity of this resource. Labor productivit ratio of outputs to labor inputs and capital productivity as a ratio of outputs to capital inputs , and so on(15) :2001 ,(Asian Productivity OrganizationThe formula below shows the measure of partial : (jar, 2004: 23Naj-productivity (Mohsen and Al

$$Ps = \frac{O_T}{I_s} \times 100$$

_ SincePT total productivity =T O total output =Is input =

Partial productivity can be measured based on the nature and type of inputs, as well as according to :(62 :the organization's objectives, including (Ereqat, 2012

Labor productivity = output / workers

.Material productivity = output / materials used

.Machine productivity = output / machines

.Energy productivity = energy output / energy input

.Capital productivity = output / capital

) Third : Nursing serviceQuality of service .(

The most important and decisive factor in achieving the hospital's first Prepare services Nursing goal, which is patient care. The nurse is the only professional element who remains in direct contact s responsible for implementing the treatment plan drawn up by with patients around the clock. He i the treating doctors. He observes and monitors patients and evaluates them and the extent of the al progress of treatment results. Nurses constitute In terms of number, it is the largest profession group working in the hospital (Nuseirat, 2008: was described as and nursing service ,(291 identifying patients' requirements, how to satisfy them, understanding their needs, and how to Muradli, 2015-understand the hospital's competitive priorities (Al: The American Nurses   .(43 Association)ANA indicated (To define nursing care services as direct interaction with the patient

in hospitals, and includes protecting and enhancing their health condition and abilities, alleviating According .osis, treatment and support in carrying out activities of daily lifesuffering through diagn noitcaretni eht hguorht dedivorp dna decudorp era secivres erac gnisrun latipsoh " ,to this definition between patient and hospital " (Schmitz, 2011:2 epresented as protection Nursing services are r .(And enhance And improvement the health patients' abilities, And prevention from Diseases and injuries, And mitigation from Suffering from during Diagnosis And treatment And the response for uals And families And communities Local And the human, And the invitation to Care Individ population, as it is treatment Presenter For the patient whether He was Diagnostically or Indicatively Or interference Medically Produce about him Satisfaction or Acceptance And benefit from before ts And with what It denotes to him because He is In condition Healthy better , and this is The patien the definition maybe that Indicates in Guaranteed to three Deportation For service the introduction in :(Jazairy et al., 2010: 12-the hospital These are (Al

e Featured ServiceAdjectivAttributes It is related Basically In essence the service Health the : . introduction Which Composed from several procedures Various diagnostic and therapeutic options

Benefits desired from ServiceBenefits ... It represents : lementsWith the e different that _ Gets on her the patient or jealousy from Reviewers To the hospital Their needs To meet ,health Which launch _ on her in some Cases With a package Satisfaction achieved For the customer And included No idea _ Real For efficiency job the Performance In its shape Tangible And other . The tangible

Services Services Support : It is:With the elements added that He offers it the hospital to essence ts, angel the service Health the introduction For patients, including: System reservation appointmen Reception For patients, Services Telecommunications telephone, Coordination With hospitals The product ,other And organizations Social Humanity And others(service)in the hospital she treatment diagnostic or Y Irshad or Intervention for lmedica Produce about him Satisfaction the patient.

.Fourth: The relationship between productivity and nursing services

It was completed identification Productivity As a measure For production for every One unit from g services, described Productivity As proof or Evidence inputs, and within science Nursing or nursin on Bezel Nurse competence in the job , And determine job, or Bezel efficiency Dealing with Resources And equipment, which is a measure of the extent of compliance Presenter care Health eeds the society , And often what expresses Productivity from where number The And serve his n patients Whose It was completed Check them out During a specified period of time or the amount e knowledge Required Recover it when Submit it, if required production any commodity or servic Input or ingredients production, And determine Standard Target quality, including that Production Healthy Requires levels High from Efficiency Productivity And quality, The turn Economic e And the best that Check The highest Centered in to set Input Productivity The most appropriat Nurses ,(levels production in Shade Resources Available and ltd Relatively (Baz and Saleh, 2010.1 are represented in Most Institutions care Health Larger group a job And play Dora President in _ And therefore effect productivity Nurses On success Health organization , success the organization and counting Productivity And efficiency As Most important factors Which managers seek To , Progress in the increase it With enhanced efforts aiming to to a guarantee stability Organizational in) world full of Competition2012: 452 (Bahrami and represents Productivity Nursing condition , Balance between the demand And the show from Services And management structure Cost Health And saving care The good one in a way ,system on road to merge Processes Finance and clinical) Active from where Cost2005:2 Nahid a contribution Nursing in Productivity no maybe That's ,(Measure it Easily, Due For nature And focus a job Nursing, it's nature a job Nursing Concentrated to ilding Relations Therapeutic, that works Nursing Focused on results Health For Limit big around bu good care For patients And nurses, And this Concepts no Proportionate completely with situation) model the focus on Input and outputsO'Connor, 2010:2 nt reasons Among the most importa ,(Bakri, 2005-behind interest in the productivity of health and nursing services are the following (Al: :(194

The hospital administration adopts scientific behavior in measuring the results of its work and .ng balanced and evaluatedmaking them quantitative, capable of bei

The hospital's transition from the concept of being a public organization to being a business organization seeking to achieve profitable results in its work requires it to use the concept of .ultsproductivity to indicate financial res

The disappearance of the previous belief that the amounts spent in the health sector were considered .recoverable expenses, as they were an investment cost that would return a return at a later stage-non

ween hospitals in the health market and those The expansion of the volume of competition bet operating in the private sector or even in the public sector itself, in order to determine their internal .capabilities to determine the strengths, weaknesses, opportunities and threats to survive and continue

.Fifth: Factors affecting the productivity of nursing services

that the problem Economic that Facing any Community or section economic Whatever He was His system she The problem of scarcity relativity, And for a solution This is amazing the problem; the answer on questions All three Next : (What Society produces And how Produce the should society And to whom Distributed Production) , And by projection This is amazing Questions On : (and Saleh, 2010:1 health sector, It is The useful one Signal to Questions The following (Baz

What Produce Community : that is Type from Services And goods Health He should that He offers it health sector, Do she Services Therapeutic on A way Medicines And surgeries and health care, wareness And the province On Environment and Mother Services Preventive on road Programs A . combat Epidemics And otherwise Mother both of them

how Produce Community : What she better Roads that from Possible Use it To produce Goods and epresent Exploitation Optimum services Health In shape The most efficient productively, Which R for available resources, gesticulate he Mix optimum from Input Production the duty Use it In .Production process

To whom should the production be distributed: Who is the target segment for the production, and tion be targeted at all Segments and groups of society and its individuals, or is it should the produc income -limited to certain segments according to their income or health conditions (such as: low the methods of distributing people or diabetics), or according to regions and territories, and what are production that can be used to ensure the achievement of fair distribution

Productivity is one of the important measures and indicators used to measure the success and Productivity is linked and affected by .development of any organization, sector, or even country many factors, to the point that some have said that everything affects productivity, and the degree of . factors this effect varies from one factor to another, and productivity is affected by several :(rairi, 2013: 44Ghu-Including (Al

A group of technical and organizational factors: such as the degree of integration of production systems and their suitability to technological changes, the level of technical preparation of the internal arrangement of production units, as well as the workforce and methods of selecting it, the degree of suitability of materials, their quality and regularity of their flow, and the quality of the .machines and equipment used

ns of the work environment, A group of behavioral and social factors: most notably the conditio incentive systems and incentive wages and the extent of their connection to production, social .customs and traditions, and the relationship between producers and management

ather and climatic conditions, the geographical A group of natural and operational factors: such as we distribution of natural resources and services, the structure of the labor market in the country, and the .provision of scientific and technological research centers

s determinants of work and productivity in the hospital, A number of factors have been identified a which constitute the main obstacle to workload (nurses' interactions with patients and the presence not of many qualitative indicators in the process of providing care to patients. In addition, nurses do

allocate sufficient time for each patient and increase the burden Services provided to patients, and) the shortage of nursesBahadori ,2014:2 For the purposes of this research, the factors mentioned .( ) in the studyKien, 2012 ich are seven factors affecting productivity, including will be adopted, wh (the workforce, management team, motivation, work pressure, and materials. Equipment, supervision,) and safety as described belowKien, 2012: 17-25) :

_ : Workforce_ _

ability of highly skilled nurses, their appropriate training and the This factor indicates the avail provision of the required resources for this, and the work of nurses with high morale and high om commitment to the work entrusted to them, as well as determining whether there is absence fr work among nurses. With the need to pay attention to the health level of nurses, and good working . relationships between nurses

: Management Team_ _

Management leadership skills are important to improve productivity, as well as the presence of good lations between the nurse and the direct supervisor, the presence of monitoring performance and re .paying attention to listening to nurses' problems by holding periodic meetings with them

_ : Motivation_ _

n, wages and salaries granted to nurses for the Attention must be paid to the financial compensatio work they do, as well as introducing nurses to the nature of their work through introductory programs to nursing work, encouragement and opportunities to continue studying and develop .nurses' skills

) (of working hours (time Pressure Pressure of working hours :

Most nurses suffer from pressure at work, with no rest or vacation times, as well as shift work .morning and evening) and overtime, and poor planning for nursing work)

Materials/ : equipment_

work requires appropriate speed to perform the work, so attention must be given to the place Nursing where medical materials are stored in order to access them quickly and without wasting time, which ools and equipment of the required requires appropriate arrangement, as well as the provision of t .quality

: Supervision_

The performance of nursing services requires supervising the provision of these services to ensure that they are provided in a timely manner, as well as overcoming problems that obstruct nurses' ork, holding periodic meetings with nurses, and verifying that the work is performed correctly and w .without the need to repeat nursing work

: Safety_

Nurses need to work in an appropriate atmosphere, such as adequate ventilation and lighting, in to paying attention to their safety and protecting them from threats and accidents that they addition may be exposed to during their work, and nurses being exposed to interference and threats from the .patient's family

axis /the practical aspect of the research

.Khalis General Hospital-st/ An introductory overview of AlFir

The hospital was established in 1976. It is located in the center of Khalis district. The area is 1650 square meters and consists of: The hospital includes the Department of Internal Medicine and and the number of nursing , Surgery and the Department of Gynecology, Obstetrics and Children . (male and female nurse, As shown in Table (5 (181) 2016 Of both sexes until staff has reached

Nursing staff in a hospital Sincere General-Table 5

Female	Male	Category	ت
11	8	University nurse (nursing college graduate)	1
18	25	Technical nurse (institute graduate)	2
56	59	Skilled nurse (nursing preparatory school)	3
/	4	Nursing Assistant (Nursing Course)	4
85	96	total summ	5

.y the researcher based on the Health and Life Statistics Division at the hospitalSource: Prepared b

This hospital ranks third in terms of the number of beds , amounting to (130) beds. The hospital and the residents of Diyala , provides health services to the residents of the district in particular Governorate in general. The total number of patients in the hospital during the year (2015), distributed among the departments in the hospital, reached (91,717) patients . The number of patients Department during the same year was (1873) patients, the Surgery admitted to the Internal Medicine Department (690) patients, the Obstetrics and Gynecology Department (5039) patients, the Children's Department (3295) patients, the Consulting Department (60355) patients, (18521) As for the surgeries performed in the hospital, they amounted to (1944) surgeries during the ,patients .year 2015

.Second: Results of measuring partial productivity

Khalis General), in-Batoul Al-Partial productivity will be measured at the hospital level (Al addition to measuring it for the departments in these hospitals in order to determine the level of hospital productivity . Data related to the number of patients and the number of nurses in the hospital ch of the year (2015) until the month of will be approved for the period from the month of Mar March. February of the year (2016), in order to observe the results of measuring productivity over the course of an entire year in order to identify the level of productivity in all seasons and the extent Khalis General -here is a change in the results that can be noted throughout the year in Alto which t : (Hospital , which will be measured according to formula (1

$$PT = \frac{OT}{IT}\ \text{--------------}\ (1)$$

) WherePT) represents) ,partial productivityOT) or numbers of patients, and represents outputs (IT .(represents inputs, i.e. numbers of nurses. As shown in Tables (6) and (7 (

The results of measuring the partial productivity of nurses at Khalis General Hospital, shown in results between departments , through the use of Formula Tables (6) and (7), showed variation in the) No. (1), whereOT) represents the outputs or numbers of patients and (IT the inputs, i.e. Number (y of nurses , as the results of the internal medicine department indicate that partial productivit achieved the highest results in August of the year (2015) due to the increase in the number of inpatient patients in this month. The highest productivity of the internal medicine department was nts, there is a nurse responsible for which means that For approximately every eight patie ,(8.08) taking care of them and providing them with nursing care in this department. As for the lowest productivity, it reached (5.65) in July of the year (2015). This result indicates that there is a nurse for very six patients in this department. Department , the highest partial productivity of approximately e the Surgery Department was (9) patients per nurse in the month of September, while the lowest e results of the Obstetrics productivity was (2.7) nurses per patient for the month of December, and th and Gynecology Department were higher than the other departments, as productivity in August reached (27.15), that is, Approximately (27) patients per nurse, while productivity was less in .r nurseDecember and reached (18.15) patients pe

The results of measuring the partial productivity of the pediatric department showed that the highest productivity was in the month of December and reached (19.5), which means that each nurse is g in this department, while the lowest productivity responsible for approximately twenty patients lyin was in the month of February of the year (2016) and amounted to (7.92). This result indicates that .each nurse is responsible for providing nursing care to eight patients lying in this department

lts of the consulting department at Khalis General Hospital indicate that the highest The resu productivity was for the month of April of the year (2015) and reached (186.69) per patient, while and reached (123.3) (6the lowest productivity was for the month of February of the year (201 patients per nurse. As for the emergency department In the hospital, productivity was highest in May, reaching (31.42) patients per nurse, and lowest productivity in February of 2016, reaching .patients per nurse (17.37)

of measuring the partial productivity of surgical operations showed that the highest The results productivity was for the month of August, which amounted to (7.77) patients per nurse, while the patients per nurse. (lowest productivity was for the month of December, which amounted to (3.22 The previous presentation of the results of the partial productivity measurement is that what can : results the following indicate the

at Most of the results are somewhat high , and are higher than international indicators, which show th the number of patients to the number of nurses is (4 :1), meaning that each nurse is responsible for caring for six patients within the clinical departments. As for the surgical departments, operations, ow that the ratio (1:1) That is, each nurse is and other critical departments, the indicators sh responsible for caring for only one patient, which indicates that the time allocated to each patient will decrease as a result of the increase in the number of patients per nurse, and this number will also .se exhaustion and fatigue for the nurses as a result of the workloadcau

There is a discrepancy in the distribution of the number of nurses among the departments, as it is s of each noted that there is a large discrepancy in the results between the different department .hospital

Measuring the partial productivity of nurses for the clinical departments in Khalis General -6 Table Hospital for the period from March 2015 to February 2016

children			Gynecology and obstetrics			Surgery			Esotericism			Hospital departments
Producti vity	Preparat ion of nurses	Numb er of patien ts	Producti vity	Preparat ion of nurses	Numb er of patien ts	Producti vity	Preparat ion of nurses	Numb er of patien ts	Producti vity	Preparat ion of nurses	Numb er of patien ts	the month
7.96	26	207	21.89	19	416	5.7	10	57	7.34	23	169	March
11.15	26	290	24.89	19	473	6.1	10	61	7.08	23	163	April
10.65	26	277	22.05	19	419	5.6	10	56	7.17	23	165	May
10.42	26	271	22	19	418	6	10	60	6.73	23	155	June
9.11	26	237	22.63	19	430	4.7	10	47	5.65	23	130	July
8	26	208	27.15	19	516	7.2	10	72	8.08	23	186	dad
8.5	26	221	22.10	19	420	9	10	90	6.69	23	154	September
8.30	26	216	22.15	19	421	6.1	10	61	5.95	23	137	October
11.8	26	309	23	19	437	4	10	40	6.26	23	144	November
19.5	26	507	18.15	19	345	2.7	10	27	7.34	23	169	December
13.3	26	346	20.36	19	387	4.9	10	49	6.91	23	159	January
7.92	26	206	18.78	19	357	7	10	70	6.17	23	142	February

International Journal of Health Systems and Medical Sciences
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Volume 2, No 11 | Nov – 2023

Table 7- Measuring the partial productivity of nurses for other departments in Khalis General Hospital for the period from March 2015 to February 2016

surgeries			Emergency			Consulting			Hospital departments
Productivity	Preparation of nurses	Number of patients	Productivity	Preparation of nurses	Number of patients	Productivity	Preparation of nurses	Number of patients	the month
4.7	31	146	18.38	59	1085	166.87	33	5507	March
5.67	31	176	30.33	59	1790	186.69	33	6161	April
5.41	31	168	31.42	59	1854	152.45	33	5031	May
5.12	31	159	29.44	59	1737	154	33	5082	June
4.7	31	146	25.66	59	1514	108.54	33	3582	July
7.77	31	241	28.50	59	1682	155.78	33	5141	dad
7.38	31	229	24.44	59	1442	138.54	33	4572	September
5.16	31	160	21.62	59	1276	127.18	33	4197	October
4.80	31	149	28.49	59	1681	163.57	33	5398	November
3.22	31	100	29.37	59	1733	167.72	33	5535	December
4.09	31	127	28.84	59	1702	184.24	33	6080	January
4.61	31	143	17.37	59	1025	123.3	33	4069	February

Third : Presentation and analysis of the results of measuring the influential factors to improve productivity.

This paragraph aims to identify the answers of the research sample of nurses working in a hospital General conclusion. In order to determine the most important factors affecting productivity, and the problems and obstacles present in the hospital that prevent the improvement of nursing work, through the use of percentages, frequencies, arithmetic means, and standard deviations, the level of answers was determined in light of the arithmetic means and compared to the hypothetical mean, which has a value of (3), and the results were For each dimension of the influential factors to improve the productivity of nursing services, according to the five-point Likert scale items (strongly disagree, disagree, neutral, agree, strongly agree), as explained as follows:

1- Arithmetic mean and standard deviation:

The results of the answers of the research sample of nurses on the seven dimensions of measuring the influential factors to improve nursing productivity in Al-Khalis General Hospital were shown in Table (8). The arithmetic mean and standard deviation were used to identify the severity of their answers as follows:

A- Manpower.

This dimension included seven items, all of which achieved arithmetic means higher than the hypothesized mean of (3), and the highest arithmetic mean of ,(4.33) was for the seventh item, which nurses in this hospital agree that there are good relationships between nurses, which confirms that the , which leads to... To increase productivity and vice versa . As for the standard deviation, it was (0.80) which indicates homogeneity in the nurses' answers regarding this paragraph. The lowest arithmetic mean, which was (3.50) was for the fourth paragraph, and this indicates that Nurses' high morale and commitment It has a significant effect on increasing productivity, and the standard deviation was (1.45) which indicates somewhat dispersion in the nurses' answers regarding this paragraph.

The mean for this dimension, from the nurses' perspective in this hospital, was (3.83) which is higher than the hypothesized mean of (3) which confirms the trend of the sample's answers towards agreement regarding the items of the workforce dimension. While the standard deviation was

International Journal of Health Systems and Medical Sciences
For more information contact: mailto:editor@inter-publishing.com

Volume 2, No 11 |
Nov – 2023

) recorded0.77 which indicates the extent of homogeneity of the sample's answers regarding this ,(
. dimension

.Management team -B

) ed arithmetic means higher than the hypothesized mean ofincluded four items, all of which achiev3
) and the highest arithmetic mean of ,(3.98 was for the second paragraph , which confirms that (
r the nurses agree that there are good relationships between the nurse and the direct supervisor. As fo
) standard deviation It reached1.25 which indicates a somewhat dispersion in the nurses' answers , (
) regarding this paragraph. The lowest arithmetic mean, which was3.23), was for the fourth
meetings held with nurses. As for the standard paragraph , and this indicates the presence of periodic
) deviation, it reached1.54 which indicates a dispersion in Nurses' answers about this paragraph as ,(
. well

al, The overall arithmetic mean for this dimension, from the perspective of the nurses in this hospit
) was3.75) which is higher than the hypothesized mean of ,(3 which confirms the trend of the ,(
sample's answers towards agreement regarding the items of the management team dimension, while
) the standard deviation was recorded1.07 tes To what extent the sample's answers which indica ,(
.were dispersed regarding this dimension

.Motivation -C

This dimension was measured with four items, all of which achieved arithmetic means less than the
) hypothesized mean of3) and the highest arithmetic mean of ,(2.53 was for the third item , which (
confirms that the nurses agree that the hospital lacks induction programs . About nursing work
) duties and rights) and that this leads to a decrease in productivity. The standard deviation was)1.48
tes a somewhat dispersion in the nurses' answers regarding this paragraph. The lowest which indica ,(
) arithmetic mean of1.95 was for the first paragraph, which relates to granting financial rewards . (
) the standard deviation was For nurses , which indicates that there are no such rewards , while1.40
. which indicates dispersion in the nurses' answers regarding this paragraph as well ,(

The overall arithmetic mean for this dimension from the perspective of nurses in this hospital was
(2.13)) pothesized mean ofwhich is less than the hy ,3 which confirms the tendency of the ,(
sample's answers towards disagreement regarding the items of the motivation dimension, while the
) standard deviation was recorded1.05 which indicates the extent to which The sample's answers ,(
.were dispersed regarding this dimension

.(Pressure of working hours (time -D

) included five items, all of which achieved arithmetic means higher than the hypothesized mean of3
) and the highest arithmetic mean of ,(3.69 This indicates that work .was for the first paragraph (
) pressure is great in the hospital during week and without vacation. The standard deviation was1.31
which indicates somewhat dispersion in the nurses' answers regarding this paragraph. The lowest ,(
) arithmetic mean was3.10 or the second paragraph, which confirms that nurses agree that there is f (
) crowding in the workplace . The standard deviation was1.38 which indicates dispersion in the ,(
. nurses' answers regarding this paragraph as well

c mean for this dimension, from the perspective of the nurses in this As for the overall arithmeti
) hospital, it was3.34) which is higher than the hypothesized mean of ,(3 which confirms the ,(
working trend of the sample's answers towards agreement regarding the items in the pressure of
) hours (time) dimension, while the standard deviation was recorded0.90 which indicates the extent (
.of homogeneity of the sample's answers regarding this dimension

. Materials/Equipment -E

) ns less than the hypothesized mean ofincluded six items, all of which achieved arithmetic mea3 ,(
) and the highest arithmetic mean of2.95 was for the second paragraph . This indicates a lack of (
agreement regarding this paragraph, and that not arranging the materials appropriately causes a loss
) The standard deviation was . of time1.33 which indicates a somewhat dispersion in nurses' ,(
) answers regarding this paragraph. The lowest arithmetic mean, which was2.56 was for the fourth ,(

devices and equipment, let paragraph, which confirms that nurses do not agree on the quality of) alone their lack of availability . As for the standard deviation, It reached1.33 which indicates ,(dispersion in the nurses' answers regarding this paragraph as well. As for the overall arithmetic mean reached (2.73) from the nurses' perspective in this hospital, which is less than for this dimension, it) the hypothesized mean of3 which , (confirms the tendency of the sample's answers towards ard deviation disagreement . Regarding the items on the materials/equipment dimension, the stand) was recorded at1.11 which indicates the extent of the sample's responses regarding this ,(.dimension

. Supervision -D

This dimension included six items, all of which achieved arithmetic means higher than the) hypothesized mean of3) and the highest arithmetic mean of ,(3.74 was for the sixth item , which (confirms that nurses agree that nursing work is performed well and without the need to repeat it) again. Other , as for the standard deviation, it was1.18 es a somewhat dispersion in which indicat ,( ) the nurses' answers regarding this paragraph. The lowest arithmetic mean, which was3.28 was ,(for the third paragraph , and this indicates that there are periodic meetings of supervisors that are) s . As for the standard deviation, it wassomewhat held with the nurse1.51 which indicates a ,(dispersion in the nurses' answers regarding this paragraph as well. As for the overall arithmetic mean for this dimension, it was (3.54), which is higher than the hypothesized meanof (3), which confirms the trend. The sample's answers were towards agreement regarding the items of the) supervision dimension, while the standard deviation was recorded1.17 which indicates the ,(.s dimensiondegree of dispersion of the sample's answers regarding thi

. Safety -F

) included seven items, all of which achieved arithmetic means less than the hypothesized mean of3) and the highest arithmetic mean of ,(2.39 was for the fifth paragraph , which confirms that nurses ( ) fficient , which leads to low productivity. The standard deviation wasagree that lighting is insu1.31 which indicates a somewhat dispersion in the nurses' answers regarding this paragraph. The lowest ,( ) arithmetic mean was1.71 nurses are exposed to for the seventh paragraph. Which indicates that ( ) interference and threats from the patient's family The standard deviation was0.97 which ,(. indicates dispersion in nurses' answers regarding this paragraph as well

) spective of nurses in this hospital isThe overall arithmetic mean for this dimension from the per 1.98) which is less than the hypothesized mean of ,(3 which confirms the tendency of the ,(sample's answers towards disagreement regarding the items of the safety dimension, while the) dedstandard deviation was recor0.77 which indicates The extent of homogeneity of the sample's ,(.answers regarding this dimension

Arithmetic mean and standard deviation of nurses' responses at Al Khalis General Hospital 8 Table

standard deviation	Arithmetic mean	Paragraphs	ت
		Manpower (nurses)	
1.19	3.83	The hospital has experienced and skilled nurses.	1
1.39	3.56	It allows nurses to be empowered through training and resource allocation	2
1.07	3.99	Reduced absenteeism rate for nurses.	3
1.45	3.50	Nurses' commitment and morale are high in the hospital	4
1.23	3.74	The low age of most nurses in the hospital.	5
1.16	3.89	Nurses enjoy good health.	6
0.80	4.33	There are good relationships between nurses.	7

0.77	3.83	Total	
Management team			
1.39	3.93	The management has high leadership skills	8
1.25	3.98	There are good relationships between the nurse and the direct supervisor.	9
1.32	3.89	There is high precision in monitoring work.	10
1.54	3.23	The administration holds periodic meetings with nurses.	11
1.07	3.75	Total	
Stimulus			
1.40	1.95	Appropriate financial rewards are given to nurses	12
1.28	2.06	Wages and salaries given to nurses are adequate	13
1.48	2.53	There are programs to learn about nursing work (duties and rights).	14
1.46	1.99	It is allowed to complete studies and there are opportunities to continue studying.	15
1.05	2.13	Total	
Working hours pressure (time)			
1.31	3.69	Nurses work during the week without days off	16
1.38	3.10	There is crowding in places designated for work	17
1.28	3.41	There is an appropriate distribution of work shifts (morning and evening).	18
1.35	3.36	Nurses are working overtime	19
1.36	3.18	There is planning and coordination of the nursing process.	20
0.90	3.34	Total	
Materials/equipment			
1.38	2.88	Material storage places are adequate	21
1.33	2.95	Materials are easily found due to their convenient arrangement	22
1.37	2.60	Devices and equipment are available and used well by nurses	23
1.30	2.56	Most of the equipment is in good condition and adequate in number	24
1.35	2.80	High quality raw materials are used	25
1.38	2.65	Materials arrive on time and are always available	26
1.11	2.73	Total	

International Journal of Health Systems and Medical Sciences
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Volume 2, No 11 |
Nov – 2023

		Supervision	
1.41	3.62	There are appropriate procedures for supervising the work of nurses	27
1.46	3.60	Most supervisors are competent and unbiased	28
1.51	3.28	Regular meetings of supervisors with nurses are constantly held	29
1.60	3.34	There is an agreed upon system of work	30
1.39	3.71	The inspection process takes place without delay	31
1.18	3.74	Nursing work is performed without the need to do it again	32
1.17	3.54	Total	
		safety	
0.95	1.76	There are measures to protect nurses	33
1.02	1.94	There is calm on the work site	34
1.06	2.00	The hospital has a safety plan for nurses	35
1.01	1.88	Working conditions are safe for nurses	36
1.31	2.39	There is appropriate and sufficient lighting	37
1.20	2.21	Reduced accident rates in the hospital	38
.970	1.71	There are no interferences or threats to nurses from the patient's relatives.	39
0.77	1.98	Total	

.Factor analysis -2

A number of criteria should be adopted in the results of this analysis, which indicate the adequacy of the sample iance and the existence of correlations between variables , and that the cumulative percentage of explained var) gives greater significance when it exceeds0.60 and the latent root value , ((Eigen Value) does not decrease.) More than the correct one , and the values of paragraph branchesLoading) exceed (0.30 in order for them to ( ) icant , and good paragraphs must have branches more thanbe statistically signif0.30 otherwise the paragraph ,(The condition of the adequacy of the research sample is also one of the most . will be invalid) so we will use the ,important necessary conditions that must be met to use factor analysisKaiser-Meyer-Olkin)) scale (or what is called for short asKMO which represents one of the most important steps in ,(the analysis. Factorial: The value of(KMO) ranges) between0 -1 at When the value is (zero), this indicates th .(the use of factor analysis is not appropriate. However, if the value is close to (one), this is an indication that the use of factor analysis is appropriate. It will give results that are described as highly credible. The scientist Kaeser) t the accepted values be greater thanrecommends tha0.50 .in order for it to be appropriate and more credible ( ) Table 9) shows the results of the factor analysis on a sample of nurses working at Khalis General Hospital .) What can be noted is that the value ofKMO) is (0.77) which is greater than ,(0.50 which indicates that it is a ,(very good value according to the Kaiserclassification As for the presence of correlations between the variables, it . indicates that the result of Bartlett's testBartlett) is significant, especially since the approximate value(Approx. Chi-Square)) It was recorded 211.6 and the probability value (is Sig.) It is equal to0.00 and is explained as (:follows

Schedule9 KMO and Bartlett ((s HospitalKhali-answers of nurses at Al) test

KMO and Bartlett Test	
0.77	**Kaiser – Meyer – Olkin measure of sampling adequacy** كايسر – ماير – اولكين الاستكشافي(مقياس
Bartlett Test of Sphericity	
211.6	**Approx. Chi-Square**القيمة التقريبية
21	درجة الحرية **DF**
0.00	القيمة الاحتمالية **Sig**

The Principal   Components method will be used for the purpose of measuring the seven dimensions in Khalis General Hospital and to verify the validity of the statements and The sufficient number of dimensions for the scale, e results of the factor analysis according to the principal components method, which is as Table (10) will show th one of the most accurate and widely used methods of factor analysis, and what can be observed from the results (furcations (Loadingshown in the table is that the values of the component biare) higher than all0.30 and for all ( ) The seven research dimensions, in addition to the latent root values of the dimensionsEign ValueIt was greater variance explained for the first than the correct one, which conforms to the aforementioned conditions, and the factor is higher than the rest of the variances explained for the other factors, which is confirmed by the fact that the ortance by the second value of the latent root of the first factor is also the largest, then it is followed in terms of imp :factor and so on, then the third factor until the seventh factor. And as explained as follows

In Khalis Hospital Table (10): Results of factor analysis according to nurses' answers

Dimensions		Factors
العامل الثالث	0.72	**workforce**
العامل الأول	0.89	**Management team**
العامل السابع	0.00	**Stimulus**
العامل الخامس	0.58	**Working hours pressure (time)**
العامل الرابع	0.71	**Materials/equipment**
العامل الثاني	0.88	**Supervision**
العامل السادس	0.21	**safety**
3.28		**underlying root**
46.85		**Percentage of variance explained (%)**
46.85		**Cumulative percentage of variance (%)**

conclusions and recommendations :Fourth axis
.Conclusions :First
1. It has been observed that the rate of patient stay in hospital departments varies, as some have a very high rate of patient stay during the year compared to other artmentsdep . departments of the same hospital, where the stay rate is low to very low

2.   It was noted that the nursing administration in the hospital is not ting nursing staff to the different departments in this hospital based on a standard for distribu .according to the number of patients staying in these departments

3. Due to the variation in the rate of patient stay and its lack of among the departments in relation to them, proportion to the scale of the distribution of nursing staff this led to a high momentum on nursing staff in some departments, especially in the consulting and emergency departments, and sagging in other departments.

4. moral It was found that there were no appropriate material or incentives for nurses, in addition to the fact that the monthly wages granted to them did not match the effort expended by them, and there were no opportunities given to them to develop their skills greatly to the lack of motivation to work in this and complete their studies. All of this contributed hospital.

5. The medical materials and equipment used by nurses are not of the required quality and are not constantly available, which affects their performance of work inside the hospital.

6. asures to protect nurses from a security standpoint The hospital's me are insufficient, as it has been noted that there are interventions and threats to nurses by patients' relatives in exchange for weak protection measures, which causes unsafe working conditions that to a high rate of accidents and attacks on staff inside the hospital, and in the absence of any lead safety plan or strict law to preserve the rights of Nurses.

7. up and evaluation by the hospital's -A defect in supervision, follow nursing administration.

Second: Recommendations.

Recommendations related to Al-Khalis General Teaching Hospital.

1− It is necessary to take into account the need for nurses in each hospital department and according to the number of patients present in each department in order to the workload equally among all nurses in this hospital distribute.

2− Appropriate spaces must be allocated to each department to avoid overcrowding in these departments, especially with regard to the emergency and counseling departments.

3− tives granted to nurses and grant Reconsider the rewards and incen them in a manner consistent with the seriousness and volume of work within the hospital.

4− Avoid purchasing materials and equipment based on the lowest -price and the need to search for suppliers who provide these high qualit-y materials.

5− Paying attention to the safety and protection of nurses, whether related to the risks that nurses are exposed to inside the hospital or the threats they are exposed to from patients' families in the event of any health problem for the patient.

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