Polarity Management Knowledge among Unit Managers at Mansoura University Children's Hospital

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ABSTRACT

Background: Polarities exist in the world, where ever there is life. Polarity management assist unit managers navigate changes by identifying and balancing polarities that arise during periods of transition. That helping them to manage complex issues and take significant decision. **Aim:** To assess polarity management knowledge among unit managers at Mansoura University Children's Hospital. **Method:** A descriptive, A cross-sectional approach was used employing a sample of 63 unit managers at Mansoura University Children's Hospital. Polarity Management Knowledge Test. **Results:** The majority of studied unit managers (98.4%) had poor level of polarity management knowledge. **Recommendations:** Adopting polarity management in hospitals as a means for evaluating the quality of health care services through collaboration with quality management units in hospitals. Conducting polarity management training program, workshops periodically for unit managers to improve their skills. Adding polarity thinking model in internship students' training to practice them on diagnosing and managing of healthcare polarities at their unit

Keywords: Polarity, Polarity management, Unit managers

Introduction

The healthcare system is so difficult and full of paradox that it needs an integrated system as an answer to its problems. There are some universal solutions that are considered as answers and help the decision makers in the integration of the healthcare organizations **(Wimelius, Mathiassen, Holmström & Keil, 2021).** Mansoura University Children's Hospital is complex organizations with several departments, hierarchies, and processes. It is a dynamic environment that continuously faces changes, such as advancements in medical technology, changing healthcare policies, and shifting patient demographics, which get up many organizational polarities, such as balancing efficiency with patient-centered care, standardization with flexibility, or centralized decision-making with decentralized autonomy. Addressing these polarities, hospitals can generate a more cohesive and harmonious working environment **(Stache & Sydow, 2023).**

One of the most challenges organizations and unit managers' face on daily basis is making judgments that may appear uncontrollable. They are constantly faced with problems that cannot be avoided and cannot be resolved, These are termed as polarities **(Mintzberg, Ahlstrand & Lampel, 2020).**

Polarities are pairings with highly different values or points of view that are dependent on each other for free energy. They may appear to be opposites, but over time, they compete with one another to achieve a greater goal or result that neither can achieve on their own. Polarities are energy systems that cannot be stopped, avoided, solved. **(Thomas, 2024).**

Polarity management assist unit managers navigate these changes by identifying and balancing polarities that arise during periods of transition **(Fish & Bergquist, 2022).** It inspires them to embrace innovation, adjust to change, and discovery creative solutions that integrate different perspectives and goals by drawing polarity mapping. Barry Johnson (1992) created the polarity mapping framework as a means of combining the advantages and disadvantages of conflicting ideas to produce a flow that maximizes the beneficial aspects while minimizing the negative aspects. **(Pesut, Headrick, Holmboe & Moore, 2023).**

Significance of Study

Many health-care organizations are facing the challenge of transforming the way they work. From these organization Mansoura University Children's Hospital , that provides a wide spectrum of health service for children who have serious health problems, and those consider

vulnerable patients which require the highest level of quality care that make staff under pressure all the time and dissatisfaction leading to confront with numerous dilemmas. Traditional problem solving not effective to overcome these dilemmas, so that unit manager should have sufficient knowledge about how to manage these dilemmas which called polarity. If managed properly, this strategy will unite the workforce, improve quality of patient care, striving stability in their organizations. So the current study aims to assess polarity management knowledge among unit managers at Mansoura University Children's Hospital

Aim of the study

This study aims to assess polarity management knowledge among unit managers at Mansoura University Children's Hospital

Methods

Research design:

This study research methodology was descriptive cross sectional design

The study setting

The study was carried out in all inpatient units at Mansoura University Children's Hospital (MUCH) which affiliated to Mansoura University Hospitals and provides a wide spectrum of health service for children.

Study participants:

A convenience sample was utilized which includes all available unit managers (n=63) during collected data.

Tool of data collection

Data was collected using polarity Management Knowledge Test.

Tool (I): Polarity Management Knowledge Test

The researcher created this tool based on a review of pertinent literature as (Yohemas, 2020 and Wesorick, 2014).

The first part: It was employed to identify personal characteristics of the study participants such as, age, gender, years of experience, educational qualification, and attendance of training program about leadership

The second part: It aimed to assess study unit managers knowledge about polarity management. It contained (43) questions in form of true /false and multiple choice questions categorized into six domain namely; definition of polarity, polarity management and problem (4 questions), benefits of polarity management (2 questions), principle of polarity management (3 questions), steps of polarity management (9 questions), difference between polarity and problem (10 questions) , polarity management concepts (4 questions), polarity map (8 questions) and finally benefits of polarity map management (3 questions).

Scoring system

Every statement response was regarded as (1) for the correct answer and (zero) for the incorrect answer. One point was given for each right answer. These scores were converting into percent score. The scoring system of this tool based on statistically cutoff point ranged from (0-43) and was categorized into three levels as the following:

- Poor level: < 60% (0-25)
- Average level: 60-75% (26-32)
- Good level: >75% (33-43)

Validity and reliability

Validity : Five experts with expertise in nursing administration reviewed the instruments after they were translated into Arabic to ensure that they were clear, relevant, applicable, comprehensive, easy to understand, and feasible to use. They also assessed each item separately to ensure that it was appropriate and relevant for testing the objectives of the instrument, and considering their suggestions, the required adjustments were done., such as increasing the number of examples in the practical test from three to nine. Based on the opinions of experts, the questionnaire's face validity was determined and it was **97%** and the content validity index (%) of its items **96%** for knowledge questionnaire, **Reliability:** The pilot participants evaluated the instruments during the first session in order to determine Cronbach's Alpha, which came out to be (0.805) for the polarity management knowledge test. The significance level for interpreting test findings was set at $p<0.05$.

Pilot study

Before starting a primary investigation, a pilot study using the data gathering instruments was carried out. At Mansoura University Children's Hospital, A pilot study was conducted with seven unit managers (ten percent) of the research sample. They were eliminated from the research after being chosen at random. The pilot study's objectives were to assess the questions' viability and clarity, spot any roadblocks and issues during data collection, evaluate the language's clarity, and calculate the amount of time needed to complete each question. Unit managers needed around twenty to twenty-five minutes to complete all of the surveys.

Ethical Considerations

Ethical approval was given by the Mansoura University Faculty of Nursing's Research Ethics Committee. The hospital's responsible administrator granted formal approval to conduct the study. Every person who agreed to take part in the study gave written informed permission after being informed of its purpose and design. Each participant was informed that participation in the study was entirely voluntary and that they might stop at any time. At every stage of the research's data collection, Participants were given assurances regarding the confidentiality of the collected data and the privacy of the research sample.

Data Collection

The questionnaire papers were delivered to all available unit managers. The researcher explained the purpose of the study as well as how to fill out the questionnaire. Unit managers completed the tools separately at once, reading the questions and filling out the sheets which took 25-30 minutes. The data gathering procedure began in early January 2024 and ended in late February 2024.

Data Analysis:

The acquired data was coded, entered, organized, and analyzed using SPSS (Statistical Package for Social Science) version 25 (IBM Corporation, Armonk, NY, USA). The range, mean, and standard deviation were determined for quantitative data. For qualitative data, which represent a categorical collection of data by frequency, percentage, or proportion of each category **(Dawson & Trapp, 2001).**

Results

Table (1) illustrates personal characteristics of the studied unit managers. It discovered that more than two third (65.1%) of unit managers' age were between (30-40) years old with mean score (36.98±5.27), all of them were women (100%) also more than half of them (52.4%) had years of experience ranged from (1-10) years with mean score (10.27±5.35). Concerning unit managers' educational qualifications, majority of them (68.3%) had bachelor degree and (61.9%) of them don't attend any previous training program about management.

Table (2) illustrates mean scores of unit managers' knowledge about polarity management. It showed that the total polarity management knowledge means core was 13.44±3.16. The highest mean score was 3.22±1.14 as regard to difference between problem and polarity, while the lowest mean score was 0.76±0.73 as regard principles of polarity management.

Table (3) illustrates total knowledge level of the studied unit managers about polarity management. It showed that, majority of the unit managers' knowledge was at poor level (98.4%). While a very small percentage (1.6%) was at average level.

Table (1): Personal Characteristics of the Studied Unit Managers

Personal characteristics		The studied unit managers (n=63)	
		No	%
Age years			
•	28-30	9	14.3
•	>30-40	41	65.1
•	>40-51	13	20.6
Range Mean±SD		28-51 36.98±5.27	
Gender			
• Women		63	100
• Men		0	0
Experience years			
•	1-<10	33	52.4
•	10-<20	23	36.5
•	20-22	7	11.1
Range Mean±SD		1-22 10.27±5.35	
Educational qualification			
• Bachelor degree		43	68.3
• Master degree		7	11.1
• Others		13	20.6
Attending any previous training program about management?			
• No		39	61.9
• Yes		24	38.1

Table (2): Mean Scores of Unit Managers' Knowledge About Polarity Management

Polarity management Knowledge sub items (Each item was scored from 0-1)	Knowledge mean scores of the studied unit managers	
	No. (Score)	Range Mean±SD
A-Definition of polarity , polarity management and problem	4 (0-4)	0-3 1.22±0.79
B-Benefits of polarity management	2 (0-2)	0-2 0.44±0.56
C-Principles of polarity management	3 (0-3)	0-2 0.76±0.73
D-Steps for polarity management (polarity map)	9 (0-9)	0-6 2.28±1.52
E-Difference between problem and polarity	10 (0-10)	1-6 3.22±1.14
F-Polarity management concepts	4 (0-4)	0-4 1.14±0.95
G-Polarity map	8 (0-8)	0-6 3.08±1.44
H-Benefits of polarity map management	3 (0-3)	0-3 1.28±1.02
Total knowledge score	**43 (0-43)**	**7-26 13.44±3.16**

Table (3): Total knowledge Level of the Studied Unit Managers About Polarity Management

Total knowledge level of the studied unit managers (n=63)		
	n	**%**
• **Poor level (0-25)**	62	98.4
• **Average level (26-32)**	1	1.6
• **Good level (33-43)**	0	0

N.B. Knowledge level was classified into; low level (<60% of scores), average level (60-75% of scores) and good level > 75% of scores)

Discussion

Polarity management is a technique that enables nursing managers to fulfill organizational goals. Managing polarity is about (both-and) thinking that encourages a shift from believing I am right and you are wrong to thinking we are both right. This sort of thinking complements our usual issue solving (either-or) thinking. **(Martin & Oshea, 2021).**

The goal of the present study was to assess polarity management knowledge among unit managers at Mansoura University Children's Hospital. The result in present study revealed that majority of unit managers' knowledge was at poor level. From an investigator's perspective, the poor level of knowledge about polarity management may attributed to the polarity management is a novel concept in nursing, and the majority of the investigated unit managers had no idea about it. For this reason there is no any training program about polarity management is launched

These findings of the study were congruent with Mohamed, Ismail, Abo Elsoud & Mohammed, (2024) who explored effectiveness of polarity training program on nurse managers' performance, conducted at Kafr El-Dawar General Hospital and reported that, participants lack knowledge of all polarity dimensions the researchers believed that knowledge was lacking regarding the concepts, methods, and roles associated with dealing with polarity and creating polarity maps. This was due to participants have insufficient knowledge about this concept and hospital focus on improving their knowledge that are related to daily technical skills to deliver patient care.

Moreover, Khalaf Alah, Abdelrahman & Mohamed, (2024) who conducted a study about polarity management educational training program and its effect on head nurses' leveraging health care polarities and guiding hospitals' transformation, conducted at Minia University Hospitals and the study revealed that the majority of head nurses had

insufficient knowledge level about polarity management in pre-program implementation The poor head nurses knowledge about polarity management could be due to the uniqueness of the concept while the continuous training units in University Hospitals give attention to develop head nurses basic skills for patient care and management while marginalize the new trends,

The present study also was in agreement with Elsayed, Eid & Kamel, (2023) who conducted a study about effect of polarities management educational program on head nurses' performance, conducted at Tanta International Teaching Hospital and revealed that more than two thirds of the studied head nurses had poor total knowledge in pre-program phase and this may be due to novelty of the concept

Similarity to, the finding supported with Mohamed, Abo Elmagd & Yussief ,(2021) in their study entitled as effect of educational training program about polarity management on nurse managers' knowledge and skills , conducted at Assuit University Hospital and revealed the majority of the investigated sample preprogram had poor awareness about all dimension of polarity management due to polarity management is a specialized area within organizational development, so it might not be as widely covered as more mainstream training.

Conclusion

This study concluded that majority of the unit managers' were deficit knowledge regarding polarity management

Recommendations

- Adding polarity thinking model in internship students' training to practice them on diagnosing and managing of healthcare polarities at their unit
- Adopting polarity management in hospitals as a means for evaluating the quality of health care services through collaboration with quality management units in hospitals
- Emending the concept of polarity in cultures of healthcare settings.
- Conducting polarity management training program, workshops periodically for unit managers to improve their skills.

Further research:

- Assessment of polarity management skills
- Effect of training program on polarity management knowledge and Skills.
- Impact of polarity management training program on quality of patient care.

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