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Enablers and Barriers Facing Nurse Managers for Implementing the Innovative Managerial Skills at Menoufia University Hospitals

Faten F Abo Baraka[1], Manal M Ibrahim[2], Sanaa M Safan[3]

[1] Assistant Lecturer in Nursing Administration, [2 3]Professor of Nursing Administration, 123Faculty of Nursing- Menoufia University

Abstract: Background: Innovation considered a key to improve an organization's competitiveness. There are variety barriers impede innovation as external environment, also, enablers for innovation include easily access to finance and training. **Purpose:** Identify enablers and barriers facing nurse managers for implementing the innovative managerial skills at Menoufia University Hospitals. **Design:** Descriptive research design was utilized at this study. **Setting:** At different departments in Menoufia University hospital at Shebin El-Kom. **Subjects:** All available nurse managers (70) were included at this study. **Instruments:** Two instruments used for data collection: Instrument I; Self-administered knowledge questionnaire, and Instrument II; Barriers and enablers of innovative managerial skills questionnaire. **Results:** The most organizational enablers for innovative managerial skills among the nurse managers were having a champion management and having sufficient resources to support innovations, while the most individual enablers for innovative managerial skills among the nurse managers were access to funds of innovative ideas not requiring approval and overarching team to drive innovative process. Also, the most barriers for the nurse managers' innovative managerial skills were management tying up critical resource better allocated and decision making by consensus items. **Conclusion:** The level of barriers that face nurse managers' for implementing the innovative managerial skills was higher than enablers' level that support implementing the innovative managerial skills among nurse managers. **Recommendation:** Hospital administration should outline and discuss strong impact of barriers that hinder innovative managerial skills among nurse managers and determine strategies to control negative impact of these barriers.

Key words: *Barriers, Enablers, Innovative managerial skills, Nurse managers.*

Introduction

Currently, worldwide nursing experts have been inspiring nurses to pursue innovation in nursing to improve nursing outcomes, so they ought to have the capability to be receptive to the innovation in their practice environment.

The adoption of contemporary innovation necessitates the nursing staff to have innovation conduct to create more proficient work processes and have better productivity and performance of the health care organization (Koszalinski, et al, 2021). Innovation is central to maintaining and improving quality of care. Without nurses, health and social care would come to a cessation because nurses are fundamental to high-quality healthcare. The excellence in nursing practice and

innovation requires nurse managers must take the responsibility for training and development, recruitment, and reward systems (Zhang, et al, 2019).

Innovation enablers include factors occur on a holistic level, clusters of innovation enablers emerged from three perspectives: the organizational, team, and individual perspectives. The organizational perspective includes five factors: climate, e.g. factors that stimulate creativity and innovation in the work place; collaboration, e.g. how the organization is set up to ease collaboration between departments and external parties; culture, e.g. how innovation work is supported by informal norms; education, e.g. how organizational staffs receive obvious training and learning in innovation management techniques; knowledge, e.g. innovation-related knowledge regarding how to execute innovation management (Johnsson, 2016a).

Barriers may act on one or more points of the innovation process, the assumption behind the barriers approach is that once inhibitors of innovation are identified, its effect is understood and action is taken to eliminate them, then the natural flow of innovation will be re-established. Innovation, however, demands motivation, extraordinary effort and risk acceptance to proceed (Nassar & Faloye, 2015 and Kronenberg, et al, 2017).

Significance of the study:

Innovative nurse managers are constantly faced with the fast-paced changes in healthcare, challenges and opportunities, and the needs to improve healthcare quality and safety while reducing costs. Thus innovative behavior is necessary for the evolution of nursing practice and organizational success. So, innovative nurse managers should support innovation, oversee change effectively, create an infrastructure that integrates innovation into their organization in which staff nurses are both empowered and encouraged to develop innovative solutions to solve healthcare issues for systems to operate smoothly and to produce positive patient outcomes (Porter-O'Grady & Malloch, 2017 and Gallagher-Ford, et al, 2019).

From clinical observation, it was observed that nurse managers had defect in their managerial skills especially innovative skills. So it's important to determine and manage barriers that face nurse managers as well as support enabling factors to improve their innovative managerial skills which can contribute to the improvement of nursing service management processes and the achievement of organizational goal (Goktepe, et al., 2018). Thus, the aim of present study was to identify enablers and barriers facing nurse managers for implementing innovative managerial skills at Menoufia University Hospitals.

Purpose of the study:

Identify enablers and barriers facing nurse managers for implementing the innovative managerial skills at Menoufia University Hospitals.

Research questions:

- What are the enablers that support implementing innovative managerial skills among nurse managers?
- What are the most common barriers facing nurse managers for implementing innovative managerial skills?

Methods:

Research design:

Descriptive research design was conducted to achieve the purpose of the study.

Setting:

The study was conducted at different departments and units in Menoufia University Hospitals at Shebin El-Kom. It was established in 1993, the bed capacity of it is 1000 beds. This hospital was divided into four buildings, three of these buildings are interlinked (General Hospital, Emergency Hospital, the Specialized Hospital), and one separate building namely Oncology Institution.

Subject:

The sample of the present study included all available nurse managers working in Menoufia University Hospitals at Shebin El-Kom of the pre-mentioned units and available at the data collection period. The available number was 70 nurse managers from the total number of 92 nurse managers.

Tools of data collection:

The data was collected by using two different instruments adapted and modified by the researcher after reviewing the related literature; was introduced to study subjects and included:

Instrument one: Self-administered knowledge questionnaire. It was developed by the researcher after reading literature review (Jasińska & Hab, 2019 and Adams, 2017). The aim of that instrument was to assess the nurse managers' knowledge of innovative managerial skills. It contained 50 questions (18 mcq - 16 true &false- 16 matches) divided into 8 dimensions of innovative managerial skills: creativity and imagination (6 questions), learning and technology (6 questions), motivation (6 questions), communication and emotional intelligence (8 questions), leading groups and teams (6 questions), understanding the external environment (6 questions), goal-orientation (6 questions) and crisis and risk management (6 questions).

Instrument two: Barriers and enablers of innovative managerial skills questionnaire. It was adapted from Evitt (2007) and was modified by the researcher. The aim of that instrument was to identify the barriers and enablers for implementing the innovative managerial skills from the nurse managers' point of view. It contained 36 items: included 17 items that indicated barriers facing the nurse managers in implementing innovative skills and 19 items that expressed the enablers that helped the nurse managers in implementing innovative skills.

Validity of the instruments

The instruments were distributed to a panel of experts consisted of two professors and three assistant professors in the field of nursing administration to judge the content and face validity of the instruments, presented from different faculties of nursing affiliated to Menoufia, Tanta and Cairo Universities. The period taken by the experts group lasted from the beginning of January month at 2020 to the end of February at 2020. The instruments were considered valid from the experts' views. Finally, modifications were done based on their comments such as (e.g. modify some words to give the right meaning).

Reliability of the instruments

Cronbach's alpha for self-administered knowledge questionnaire scale was 0.925, and Cronbach's alpha for barriers and enablers' questionnaire scale was 0.947. In the light of these values, it can be said that reliability of the three questionnaires was high.

Ethical considerations

The study was conducted with careful attention to ethical standards of research and rights of the participants.

The respondent rights were protected by ensuring voluntary participation, so the informed consent was obtained by explaining purpose, nature time of conducting the study, potential benefits of the study, how data will be collected, any invasive procedure, expected outcomes and the respondent rights to withdrawing from the research study at any time in case of violation of his rights.

The respondent was assured that the data would be treated as strictly confidential; furthermore, the respondent anonymity would be maintained as they would not require mentioning their names; and the protocol of the study was revised and accepted by ethical committee in the faculty before starting the study. To ensure scientific honesty, the researcher used bracketing and intuiting to avoid bias.

Pilot study

Pilot study was conducted to assess instruments clarity and applicability of the questions and to detect the obstacles and problems that may encountered during data collection. It had also served in estimating the time needed for filling the instruments. The study was tested on 10 % of total subjects (7) nurse managers. Based on the results of pilot study, there was no necessary modification and clarification of some questions so this sample was included in the studied group of this study.

Fieldwork (Data collection procedure):

In this phase the researcher review the available literature concerning the topic of the study national and international (books, articles, periodicals, and journals) and theoretic knowledge of the various aspects concerning the study topic to modify the study instruments of data collection.

Before starting the collection of data, an official permission was obtained from the director of Menoufia University Hospital at Shebin El-Kom to carry out this study. This was done by sending letters clarifying the aim of the study from the faculty of nursing to hospital director. Then oral official permission had been obtained from the matron of the hospital and then from units nurse managers. The purpose of the study was explained to each nurse manager in the study and control group and getting their agreement to participate in the study.

Before distributing the instruments, clear instructions were given to every nurse manager. The questionnaire sheets were distributed and collected from nurse managers from the above mentioned study settings in the same day or next day, according to the type of work and workload of each department to determine knowledge of the innovative managerial skills, the barriers and enablers for implementing the innovative managerial skills from the nurse managers' point of view.

The data was collected in the middle of the shift and other time before the end of the shift and time needed to complete each instrument sheet was15:20 minutes. It took from 22/6 to 20/7/2020.

Statistical design:

The collected data were organized, tabulated and statistically analyzed using SPSS software statistical computer package version 26. For quantitative data, number and percentage (%) were calculated.

Results

Table(1): Illustrates percentage distribution of personal characteristics of the nurse managers. This table showed that the highest percent (35.7%) of the studied nurse managers was at age range from 40 to less than 45 years. Regarding academic qualification, all nurse managers had bachelor degree in nursing. According to experience years, the highest percent (48.6%) of the studied nurse managers range from 15 to less than 20 years. Furthermore, in relation to marital status; the majority of the studied nurse managers (91.4%) were married. In addition, regarding to work unit; the highest percent of the studied nurse managers (50%) were working at departments.

Table(2): Shows percentage distribution of the nurse managers' knowledge regarding the innovative managerial skills and its dimensions. It illustrated that nurse managers' had low knowledge level (47.1%) regarding the innovative managerial skills. Also, more than half (58.6%) of the nurse managers' had low knowledge level about the innovative managerial skills regarding leading groups and teams, and (52.9%) had knowledge about motivation skills, while the least nurse managers' knowledge of innovative managerial skills was regarding the creativity & imagination (18.6%) and learning & technology skills (22.9%).

Figure(1): Shows percentage distribution of the nurse managers' satisfactory knowledge regarding the innovative managerial skills. It presented that the more than half of nurse managers (52.9%) had satisfactory knowledge about the innovative managerial skills, while (47.1%) of the nurse managers had unsatisfied knowledge about the innovative managerial skills.

Table(3): Illustrates percentage distribution of the nurse managers' organizational enablers for implementing the innovative managerial skills. It showed that the most organizational enablers for implementing the innovative managerial skills among the nurse managers were having a champion management (58.6%) and having sufficient resources to support innovations (57.1%) items, while the least organizational enablers for implementing the innovative managerial skills were training staff nurses to encourage innovativeness (35.7%), setting goals for innovative achievement (37.1%), cultural pride in hospital's innovative achievements (37.1%), and organizational structure and cross functionality of divisions (37.1%).

Table(4): Illustrates percentage distribution of the nurse managers' individual enablers' for implementing the innovative managerial skills. It showed that the most individual enablers for implementing the innovative managerial skills among the nurse managers were access to funds of innovative ideas not requiring approval (57.1%) and overarching team to drive innovative process (57.1%) items, while the least individual enablers for implementing the innovative managerial skills was drawing on patients' experience (22.9%).

Table(5): Clarifies percentage distribution of the nurse managers' barriers for implementing the innovative managerial skills. It presented that the most barriers for implementing the innovative managerial skills among the nurse managers were management tying up critical resource better allocated (54.3%) and decision making by

consensus (52.9%) items, while the least barriers for implementing the innovative managerial skills were mis-allocation of finances (10%) and internal politics (12.9%).

Table(6): figure (2): Clarifies percentage distribution of the nurse managers' enablers and barriers for implementing the innovative managerial skills. It presented that the level of barriers that face nurse managers' for implementing the innovative managerial skills was higher than enablers' level that support implementing the innovative managerial skills among nurse managers. Also, the high level of nurse managers' enablers that support implementing the innovative managerial skills was (35.7%), while the moderate enablers' level was (22.9%), and the low enablers' level was (41.4%). In addition, the high level of nurse managers' barriers that hinders implementing the innovative managerial skills was (62.9%), while the moderate barriers ' level was (11.4%), and the low barriers ' level was (25.7%).

Table (1): Percentage Distribution of Personal Characteristics of the Nurse Managers (n=70).

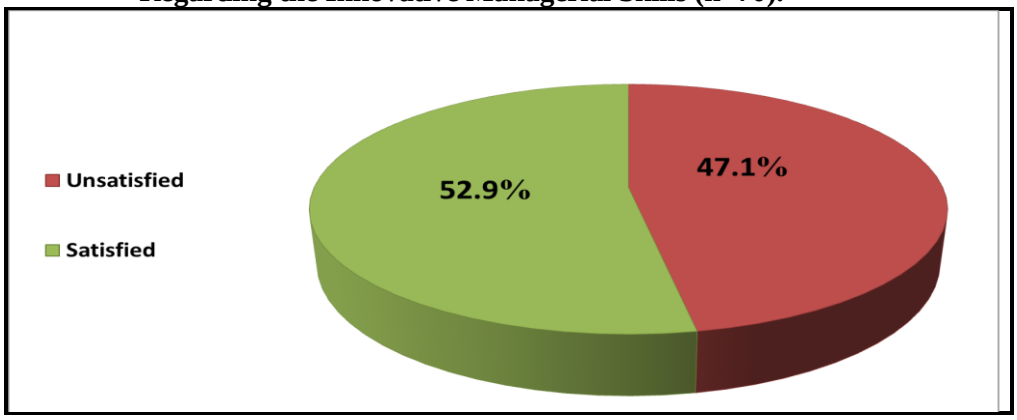
Socio-demographic items	Studied sample (n=70)	
	N	%
Age (in years)		
▪ (35-<40)	21	30
▪ (40-<45)	25	**35.7**
▪ (45-<50)	18	25.7
▪ ≥50	6	8.6
Mean ± SD	42.4±4.5	
Academic qualification		
▪ Bachelor degree in nursing	70	**100%**
Experience years		
▪ <10	2	2.8
▪ (10-<15)	4	5.7
▪ (15-<20)	34	**48.6**
▪ ≥20	30	42.9
Mean ± SD	18.53±3.92	
Marital status		
▪ Married	64	**91.4**
▪ Single	4	5.7
▪ Widow	2	2.9
Work unit		
▪ Operating rooms (OR)	10	14.3
▪ Departments	35	**50**
▪ ICUs	25	35.7

Table (2): Percentage Distribution of the Nurse Managers' Knowledge about the Innovative Managerial Skills and Its Dimensions (n=70).

Knowledge dimensions of innovative managerial skills	Studied sample (n=70)	
	N	%
1. Creativity and imagination	13	**18.6**
2. Learning and technology	16	**22.9**
3. Motivation	37	**52.9**
4. Communication and emotional intelligence	31	44.3
5. Leading groups and teams	41	**58.6**
6. Understanding the external environment	33	47.1
7. Goal-orientation	27	38.6
8. Crisis and risk management	23	32.9
Total knowledge	33	47.1

<60% Low (60-<75) % Moderate ≥75% High

Figure (1): Percentage Distribution of the Nurse Managers' Satisfactory Knowledge Regarding the Innovative Managerial Skills (n=70).



<60% Unsatisfied ≥60% Satisfied

Table (3): Percentage Distribution of the Nurse Managers' Organizational Enablers' for Implementing the Innovative Managerial Skills (n=70).

Organizational enablers	Studied sample (n=70)	
	N	%
1. Having sufficient resources to support innovations.	40	**57.1**
2. Rewarding successful innovation.	36	51.4
3. Having a champion management	41	**58.6**
4. Training staff nurses to encourage innovativeness	25	**35.7**
5. Protecting innovation from bureaucratic limitations	30	42.9
6. Setting goals for innovative achievement	26	**37.1**
7. Encouraging long-term perspectives	30	42.9
8. Culture supportive of innovation vision	29	41.4
9. Cultural pride in hospital's innovative achievements	26	**37.1**
10. Organizational structure and cross functionality of divisions	26	**37.1**
11. Innovation introduced as complementary to previous	34	48.6

<60% Low (60-<75) % Moderate ≥75% High

Table (4): Percentage Distribution of the Nurse Managers' Individual Enablers for Implementing The Innovative Managerial Skills (n=70).

Individual enablers items	Studied sample (n=70)	
	N	%
1. Access to funds of innovative ideas not requiring approval	40	**57.1**
2. Overarching team to drive innovative process	40	**57.1**
3. Drawing on patients' experience	16	**22.9**
4. Patients' interrelationship by backroom personnel	22	31.4
5. Free flow of information	20	28.6
6. Accepting failure	33	47.1
7. Individual perspective of innovation	23	32.9
8. Participative or team style of management	24	34.3

<60% Low (60-<75) % Moderate ≥75% High

Table (5): Percentage Distribution of the Nurse Managers' Barriers for Implementing The Innovative Managerial Skills (n=70).

Barriers items	Studied sample (n=70)	
	N	%
1. Competing management priorities	15	21.4
2. Mis-allocation of finances	7	**10**
3. Rewards and incentives	17	24.3
4. Encouraging status quo	15	21.4
5. Management tying up critical resource better allocated	38	**54.3**
6. Fear innovation weakening existing outcomes	30	24.9
7. Management inability to implement innovation	23	32.9
8. Processes that do not support change	18	25.7
9. Innovation introducing contradictions	20	28.6
10. Decision making by consensus	37	**52.9**
11. Multiplicity of meeting to decide	28	40
12. Preoccupation with current activities and outcomes.	22	31.4
13. Short term focus and excessively internal focus	15	21.4
14. In appropriate strategic orientation	19	27.1
15. Internal politics	9	**12.9**
16. Organizational resistance to change and or cultural inertia	21	30
17. Lack of support to adopt change	13	18.6

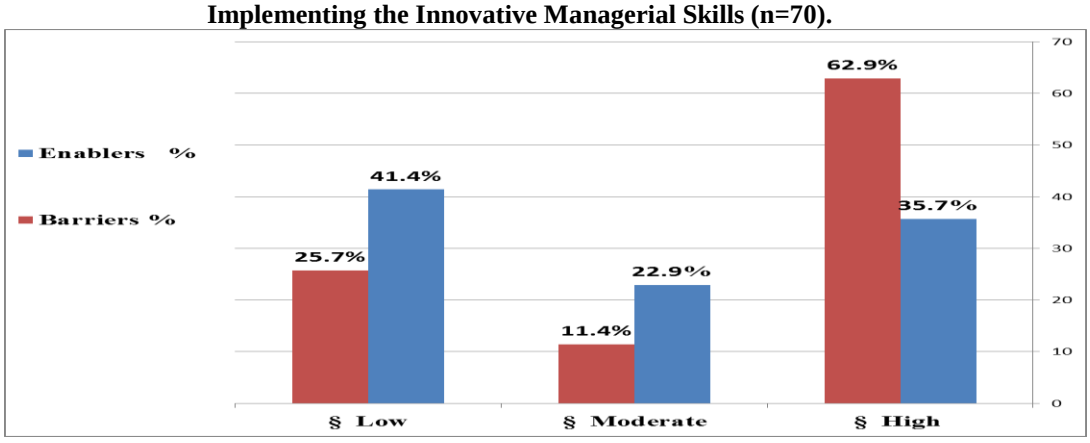
<60% Low (60-<75) % Moderate ≥75% High

Table (6): Percentage Distribution of the Nurse Managers' Enablers and Barriers for Implementing the Innovative Managerial Skills (n=70).

Enablers and barriers	Studied sample (n=70)			
	Enablers		Barriers	
	N	%	N	%
▪ High	25	35.7	44	**62.9**
▪ Moderate	16	22.9	8	11.4
▪ Low	29	**41.4**	18	25.7

<60% Low (60-<75) % Moderate ≥75% High

Figure (2): Percentage Distribution of the Nurse Managers' Enablers and Barriers for Implementing the Innovative Managerial Skills (n=70).



Discussion

In healthcare, innovation is necessary to achieve goals such as overcoming the challenges, controlling the costs, improving patient experiences and promoting community health. Innovation keeps an organization competitive and adaptive to change, involves risk as well as new ways of thinking. Nurse mangers are looking for new ways to innovate and transform, being challenged to influence quality, design new care delivery models, must be role model use of creative approaches to problem-solving, generate innovative solutions to real practice problems, advance new ideas and promote a spirit of innovation among today's workforce (Snow, et al, 2019).

Thus, the current study aimed to identify enablers and barriers facing nurse managers for implementing innovative managerial skills in Menoufia University Hospitals at Shebin El-Kom, through the following questions; what are the enablers that support implementing innovative managerial skills among nurse managers? What are the most common barriers facing nurse managers for implementing innovative managerial skills?

Before discussing the results related to test the study questions, light should be directed to personal characteristics of the studied subjects which illustrated that the highest percent (35.7%) of the studied nurse managers was at age range from 40 to less than 45 years. Regarding academic qualification, all nurse managers had bachelor degree in nursing. According to experience years, the highest percent (48.6%) of the studied nurse managers range from 15 to less than 20 years. Furthermore, in relation to marital status; the

majority of the studied nurse managers (91.4%) were married. In addition, regarding to work unit; the highest percent of the studied nurse managers (50%) were working at departments.

Regarding the nurse managers' knowledge about the innovative managerial skills, the more than half of nurse managers had satisfactory knowledge about the innovative managerial skills, while the other nurse managers had unsatisfied knowledge about the innovative managerial skills. And also, nurse managers' had low knowledge level regarding the innovative managerial skills.

In addition, more than half of the nurse managers' had low knowledge level about the innovative managerial skills regarding leading groups and teams, and had knowledge about motivation skills, while the least nurse managers' knowledge was regarding the creativity & imagination and learning & technology skills. From the researcher point of view, this may be due to that nurse managers have knowledge deficit that might be due to novelty of the concept and it is essential to be practiced at the organization and not exposure of nurse managers to the program content and activities.

The present study results were supported by Wardan, et al, (2020) who conducted the study that investigates "Entrepreneurship and Work Innovation among Nurse Managers at Port Said Governmental Hospitals" and revealed that the majority of nurses' managers hadn't innovation at the work. On the opposite side, this result was disagreed with Afsar, et al, (2018) who conducted the study that investigates "Do nurses display innovative work behavior when their values match with hospitals' values?" and concluded that the study participants had significantly higher levels of innovativeness skills at work. Also, the results of the present study was contradicted with Deborah & Joyce, (2019) who conducted the study that investigates "Levels of innovativeness among nurse leaders in acute care hospitals" and reported that there were higher levels of innovativeness skills at work among the study participants. Moreover, this result was inconsistent with Tokmak, (2020) who conducted the study that investigates "The relationship between ethical climate perception and ınnovative work behavior in health workers" and illustrated that levels of innovative work were above the median value among the health workers. Additionally, these results contradictory with Mulligan, et al, (2021) who conducted the study that investigates "Inspiriting innovation: The Effects of leader- member exchange (LMX) on innovative behavior as mediated by mindfulness and work engagement" and revealed that the innovative work level among study participants was high.

On the opposite side, this result was disagreed with Ali, et al, (2021) who conducted the study that investigates "Spiritual leadership and its relation to organizational trust among nurses at Menoufia University Hospitals" and revealed that the nursing managers' perception level of spiritual leadership was observed between moderate and high. Conversely, this result was disagreed with Jankelová & Joniaková, (2021) who conducted the study that investigates "Communication skills and transformational leadership style of first-line nurse managers in relation to job satisfaction of nurses and moderators of this relationship" and reported that there was high transformational leadership style among studied participants.

Furthermore, the result of the present study disagreed with Maglione & Neville, (2021) who conducted the study that investigates "Servant leadership and spirituality among undergraduate and graduate nursing students" and reported that the mean score of servant leadership characteristics was relatively high among studied personnel. Conversely, this result was disagreed with Barkhordari-Sharifabad & Mirjalili, (2020) who conducted the study that investigates "Ethical leadership, nursing error and error reporting from the nurses' perspective" and founded that the level of nursing managers' ethical leadership was moderate from the nurses' point of view. Also, the results of the present study was contradicted with Wong, et al, (2020) who conducted the study that investigates "Authentic leadership and job satisfaction among long-term care nurses" and revealed that the studied participants reported moderate authentic leadership level.

Also, the results of the present study was contradicted with Abd-EL Aliem & Abou Hashish, (2021) who conducted the study that investigates "The relationship between transformational leadership practices of first-line nurse managers and nurses' organizational resilience and job involvement: a structural equation model" and revealed that there was a moderate mean score of first-line nurse managers' leadership practices. Moreover, contradictory to the present study results, Ofei & Paarima, (2022) who conducted the study that investigates "Nurse managers leadership styles and intention to stay among nurses at the unit in Ghana" and founded that the mean score for participative leadership, transformational leadership, transactional leadership, laisser-faire leadership and autocratic leadership styles among nurse managers was moderate.

These results go in line with Ayalew, et al, (2019) who conducted the study that investigates "Understanding job satisfaction and motivation among nurses in public health facilities of Ethiopia: a cross-sectional study" and founded that composite mean scores for intrinsic and extrinsic motivational factors among studied personnel were moderate. Conversely, this result was disagreed with Windarwati, et al, (2021) who conducted the study that investigates "Stressor, coping mechanism, and motivation among health care workers in dealing with stress due to the COVID-19 pandemic in Indonesia" and reported that the health workers were adopting a positive high motivation attitude toward themselves to deal with the COVID-19 outbreak.

On the opposite side, Iqbal, et al, (2021) who conducted the study that investigates "Motivation levels, attitudes and intensions regarding knowledge sharing among nurses in Faisalabad, Pakistan" and reported that studied nurses show high mean scores of the intrinsic motivation values. Also the result of the present study disagreed with Angelo, et al, (2022) who conducted the study that investigates "Academic motivation and self-directed learning readiness of nursing students during the COVID-19 pandemic in three countries: A cross-sectional study" and reported that there was the highest mean of academic motivation and extrinsic motivation among the studied participants.

Furthermore, the results of the present study was contradicted with Ramdan, et al, (2021) who conducted the study that investigates "Relationship between nurses' motivation and patients' satisfaction in dialysis units in Minia

city" and revealed that the majority of the studied nurses had moderate level of motivational factors in selected hospitals. Moreover, contradictory to the present study results, Bayoumy & Alsayed, (2021) who conducted the study that investigates "Investigating relationship of perceived learning engagement, motivation, and academic performance among nursing students: A multisite study" and founded that the motivation level among the studied participants was high.

The present study results were supported by El-Demerdash & Mostafa, (2018) who conducted the study that investigates "Association between organizational climate and head nurses administrative creativity" and revealed that around two thirds of studied nurses had low organizational creativity. Additionally, these results go in line with, El-seidy, et al, (2021) who conducted the study that investigates "Relationship between spiritual leadership and creativity as perceived by staff nurses" and founded that slightly more than one -half of the studied personnel perceived low level of creativity.

On the opposite side, Hamouda & Abd El-Aliem, (2020) who conducted the study that investigates "Organizational creativity as a mediating factor for organizational performance and excellence among nurses: Developing a model" and revealed that the most of studied nurses had high organizational creativity level. Also, the results of the present study was contradicted with Awad, et al, (2021) who conducted the study that investigates "Staff nurses' perception of head nurses' support for their creativity" who reported that majority of studied nursing personnel had high percentage of creativity as a total.

Conversely, this result was disagreed with Sorour, et al, (2021) who conducted the study that investigates "Relationship between servant leadership and its' role on staff nurses' creativity and sustainable development behavior" and founded that there was moderate level of creativity among studied nurses. Furthermore, the result of the present study disagreed with Abedini, et al, (2022) who conducted the study that investigates "Creativity abilities in students of selected military nursing universities" and revealed that the overall score of creativity was average among studied nursing participants.

This result congruent with Nazarianpirdosti, et al, (2021) who conducted the study that investigates "Evaluation of self-directed learning in nursing students: A systematic review and meta-analysis" and reported that mean score of self-directed learning was at a moderate level among the studied personnel. Also, in agreement with the present study results, Phillips, et al, (2015) who conducted the study that investigates "Assessing readiness for self-directed learning within a non-traditional nursing cohort" and revealed that there was a low level of self-directed learning among the studied participants.

Conversely, this result was disagreed with Chakkaravarthy, et al, (2020) who conducted the study that investigates "Determinants of readiness towards self-directed learning among nurses and midwives: Results from national survey" and founded that there was a high level of readiness towards self-directed learning among the study participants. Furthermore, the result of the present study disagreed with Hwang & Oh, (2021) who conducted the study that investigates "The relationship between self-directed learning and problem-solving ability: The mediating role of academic self-efficacy and self-regulated learning

among nursing students" and revealed that the mean self-directed learning among the studied personnel was higher than the midpoint.

Regarding the nurse managers' enablers and barriers facing nurse managers for implementing innovative managerial skills at Menoufia University Hospitals, the level of barriers that face nurse managers' for implementing the innovative managerial skills was higher than enablers' level that support implementing the innovative managerial skills among nurse managers. From the researcher point of view, this may be due to that due to that nurse managers have knowledge deficit about the enablers and barriers of implementing the innovative managerial skills within the organization and how to overcome these barriers and enhance enablers to work more effectively with the staff and develop and implement new innovative ideas.

Concerning to the enablers that support implementing innovative managerial skills, the most organizational enablers for innovative managerial skills among the nurse managers were having a champion management and having sufficient resources to support innovations, while the least organizational enablers for innovative managerial skills were training staff nurses to encourage innovativeness, setting goals for innovative achievement, cultural pride in hospital's innovative achievements, and organizational structure and cross functionality of divisions.

In addition, the most individual enablers for innovative managerial skills among the nurse managers were access to funds of innovative ideas not requiring approval and overarching team to drive innovative process, while the least individual enablers for innovative managerial skills was drawing on patients' experience

These results came in harmony with Gupta & Barua, (2018) who conducted the study that investigates "Modeling cause and effect relationship among enablers of innovation in SMEs" and revealed that enablers including entrepreneur traits, knowledge management, resources for innovation, and linkage capabilities were significantly prominent enablers for successful innovation among study participants in SMEs. Additionally, these results go in line with Sergeeva & Zanello, (2018) who conducted the study that investigates "Championing and promoting innovation in UK megaprojects" and concluded that innovation champions proactively and enthusiastically encourage innovative ideas, and enhance innovation narratives among study participants at the work.

Moreover, this result was consistent with Ruggiero & Cupertino, (2018) who conducted the study that investigates "CSR strategic approach, financial resources and corporate social performance: the mediating effect of innovation" and revealed that corporate financial performance (CFP) and resources had a positive impact on corporate innovation skills and activities among study participants within the organization.

Furthermore, these results came in harmony with Damanpour, et al, (2018) who conducted the study that investigates "Internal and external sources and the adoption of innovations in organizations" and founded that centralization in support of innovation policy not significantly improve innovation throughout the bureaucratic system in which the hierarchical structures and the absence of effective horizontal coordination between departments continues to be a major obstacle to innovation.

Also the result of the current study agreed with Smith, et al, (2020) who conducted the study that investigates "When Failure is the only option: How communicative framing resources organizational innovation" and founded that innovation failure significantly occurred through communicative framing that has a central role in constituting innovation skills and practices and encouraging change within the organizations.

In agreement with the current study results, De Azevedo, et al, (2021) who conducted the study that investigates "Building organizational innovation through HRM, employee voice and engagement" and reported that the resources available for innovation (RI) within the organization had a positive influence on organizational innovation (OI) among study participants in which organizational human resource policies should aim to create, develop and maintain action that recognizes and supports innovation within the organization.

In addition, this result congruent with Drechsler, et al, (2021) who conducted the study that investigates "Innovation champions' activities and influences in organizations: A literature review" an revealed that the innovation champion context improve and support the advantages of new ideas or innovations as innovation champions maintain access to resources.

Conversely, this result was disagreed with Sareen & Pandey, (2021) who conducted the study that investigates "Organizational innovation in knowledge intensive business services: The role of networks, culture and resources for innovation" and concluded that resources for innovation (RI) not had an effect on organizational innovation skills and strategies at the work.

Regarding the nurse managers' barriers for innovative managerial skills, the most barriers for innovative managerial skills among the nurse managers were management tying up critical resource better allocated and decision making by consensus, while the least barriers for innovative managerial skills were mis-allocation of finances and internal politics.

These results go in line with LESÁKOVÁ, et al, (2017) who conducted the study that investigates "Innovation leaders, modest innovators and non-innovative SMEs in Slovakia: Key factors and barriers of innovation activity" and concluded that innovation managers and leaders indicated that bureaucracy and corruption, high cost of innovations, and inappropriate state support of innovation activities were significant barriers to innovative skills and activities among personnel within the organization.

Furthermore, the result of the current study agreed with Birgit, et al, (2018) who conducted the study that investigates "Needs, drivers and barriers of innovation: The case of an alpine community-model destination" and reported that knowledge and coaching gaps, missing engagement of employees and cooperation impede innovation skills and activities among personnel within the organization.

Also, this finding was in agreement with Chuang, et al, (2018) who conducted the study that investigates "A qualitative study of barriers to innovation in academic libraries in Taiwan" and founded that barriers to innovation include the tensions, conflicts and dilemmas faced throughout the implementation of innovations within the organization as well as innovation failures organizational barriers, leadership- and resource-related barriers, network- and system-related barriers, and culture-

related barriers that stem from resistance to innovation, fear of change or failure, conservative decision making and restrictive organizational culture.

Moreover, this result was consistent with, López Ramos, et al, (2018) who conducted the study that investigates "Management, innovation capacity and fear of failure in a sample of Spanish firms" and concluded that fear of failure (FF) associated with innovation capacity (IC) blocking behaviors in which fear of failure behaviors generate pressure, discomfort, demotivation, frustration or stress, decrease the organization efficiency, facilitating the occurrence of errors and reducing the quality of an appropriate environment for innovation.

Furthermore, the result of the current study in the same line with Hameduddin, et al, (2020) who conducted the study that investigates "Conditions for open innovation in public organizations" and reported that managers and policy makers that granting power to organizational personnel was a crucial practice that can decrease perceived barriers to innovation skills and strategies within the organization in which providing information was positively associated with perceived barriers to innovation, while offering rewards and access to knowledge and skills were negatively associated with perceived barriers to innovation.

In agreement with the current study results, Cinar, et al, (2021) who conducted the study that investigates "An international exploration of barriers and tactics in the public sector innovation process" and stated that increased personnel power from the organization associated with decreasing perceived barriers to innovation among study participants at work.

On the opposite side, Ouslis, et al, (2020) who conducted the study that investigates "How team innovation beliefs and performance relate to fear of failure: A Fear of failure fallacy?" and concluded that fear of failure not associated with team ratings of innovation skills quality among study participants at the work. Also, this result disagreed with Hartono & Kusumawardhani, (2019) who conducted the study that investigates "Innovation barriers and their impact on innovation: Evidence from Indonesian manufacturing firms" and revealed that finance, risk, knowledge and cooperation barriers had negative influence on innovation skills, activities and innovation performance among organizational personnel at the work.

Conclusion

The level of barriers that face nurse managers' for implementing the innovative managerial skills was higher than enablers' level that support implementing the innovative managerial skills among nurse managers.

Recommendation

Based on the findings of the present study, the following recommendations are proposed:

1) Hospital administration should continuously assess nurse managers' needs for innovative managerial knowledge and skills to integrate these skills into hospital culture and create a more innovation-friendly environment.

2) Health care systems should continuously assess and overcome barriers for implementing innovative managerial skills among nurse managers as better allocate resource and improve decision making abilities to develop innovations early and enhance organizational growth and improvement.

3) Nurse managers should attend conferences, workshops and training programs about innovation, its enablers and barriers that inspire climate to serve inspiration of innovative ideas and enhance innovative managerial knowledge and skills.

4) Investigate the relation between the innovative managerial skills barriers and organizational performance and personnel decision making abilities.

5) Study the effects of innovative managerial skills enablers on the organizational productivity and quality of care.

6) Develop and implement an innovative managerial skills training program for nurse managers.

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