

## Relationship between Structural Empowerment, Magnet Hospital Characteristics and Patient Safety Climate among Nurses Working in Intensive Care Units

Fatma Gouda Metwally

Lecturer of Nursing Administration- Faculty of Nursing- Zagazig University

### Abstract:

**Background:** The nursing work environments that empower nurses to practice according to professional standards are more likely to support a culture of patient safety. When nurses find that their work environment provides the necessary information, support, opportunity and resources to accomplish their work, they are more likely to describe their professional practice environment in magnet hospital terms. **Aim of the study:** was to investigate the relationship between structural empowerment, magnet hospital characteristics and patient safety climate among nurses. **Subjects & methods: Research design:** A descriptive design was used. **Setting:** the study was conducted at the medical and surgical intensive care units in Zagazig University Hospitals. **Subjects:** includes all nurses working in the above mentioned settings (n=263). **Tools of data collection:** Three tools were used in data collection namely; The Conditions of Work Effectiveness Questionnaire; The Lake's Practice Environment Scale of the Nursing Work Index and The Safety Climate Survey. **Results:** Reveals that positive relationships were found not only between structural empowerment and magnet hospital characteristics but also between these variables and perception of patient safety climate within the units **Conclusion:** The results of the study revealed that positive relationships were found; not only between structural empowerment and magnet hospital characteristics but also between these variables and perceptions of patients' safety climate among nurses. **Recommendations:** Nurses must be professionally empowered through formal organizational structures in ways that recognize nurses professionally beyond their ability to simply make clinical decisions, the nurse managers will have to focus less on control and more on the coordination, integration, and facilitation of nurses' work. This can be accomplished by providing access to information, resources, and support that are needed to achieve professional and organizational goals. Patient safety culture must be an integral part of the orientation and ongoing on job educational activities of staff development.

**Key words:** Structural empowerment; magnet hospital; characteristic; patient safety climate.

### Introduction:

The nursing work environments that empower nurses to practice according to professional standards are more likely to support a culture of patient safety. When nurses find that their work environment provides the necessary information, support, opportunity and resources to accomplish their work, they are more likely to describe their professional practice environment in magnet hospital terms.<sup>(1)</sup> Empowerment was defined as the dispersing power or authority. It's also assisting a person to become elevated to a new level of understanding.<sup>(2)</sup> Structural empowerment is theoretically defined as an organization's ability to offer access to information, resources,

support, and opportunity in the work environment.<sup>(3)</sup> *Information* is the knowledge of the organization on policies, decisions, goals and data and offers a sense of meaning and purpose, increasing the ability of the worker to make decisions.<sup>(4)</sup> In addition, *resources* are the necessary money, equipment and time. *Support* is the feedback and guidance from peers, supervisors and others. *Moreover, Opportunity* can be defined as the access to education and growth.<sup>(5)</sup>

The access to work empowerment structures is associated with the amount of formal and informal power an employee has in the organization, in which formal power can be obtained

from jobs that allow for flexibility, creativity, and visibility in the organization and considered important to accomplishing the goals. While informal power comes from relationships and networks with superiors, peers, and subordinates both within and outside the organization.<sup>(6)</sup>

Theory that encoring structure empowerment within the organizations is important to how employees feel about their work.<sup>(7)</sup> This finding is important because access to power within organizations enables nurses to maximize their scope of practice and to provide high-quality patient care and promote patient safety climate.<sup>(8)</sup>

The term safety climate is identified as the sharing of safety perceptions among members of an organization toward the policies, procedures and practices relating to safety.<sup>(2)</sup> Improving the safety climate will have a significant effect in advancing safety performance (including safety participation and safety behavior-like compliance) and accident prevention among employees.<sup>(9,10)</sup>

Patient safety is defined as freedom for a patient from unnecessary harm or potential harm associated with healthcare. In other words, the safety culture of an organization acts as a guide as to how employees will behave in the work place.<sup>(11)</sup> In order to advance patient safety in healthcare organizations, collaborative efforts must begin with an assessment of the current culture to identify the positive and negative perceptions and attitudes toward the safety environment and relationships that promote or hinder safe patient care.<sup>(12)</sup>

Magnet hospital attract nurses to hospital work environment that promotes autonomy and control over the practice environment and that foster good nurse-physician relationships, also these environments facilitate professional nursing practice. Nurses in magnet hospitals have lower levels of burnout and greater job

satisfaction than nurses in nonmagnetic hospitals and the hospitals with these characteristics have better patient outcomes including lower mortality rates.<sup>(13)</sup>

Magnet hospital characteristics have identified five attributes of magnet hospital settings which include; nursing participation in hospital affairs, nursing foundations for care, nursing management ability, support and leadership, adequate staff and resources, and collaborative nurse-physician relationships.<sup>(14)</sup> The nursing work environments that empower nurses to practice according to professional standards are more likely to support a culture of patient safety. When nurses find that their work environment provides the necessary information, support, and resources to accomplish their work, they are more likely to describe their professional practice environment in magnet hospital terms. These conditions encourage a patient-centered care approach, which would support a strong patient safety culture.<sup>(1)</sup> It is reasonable to expect that if nurses feel they have the tools to accomplish their work, they will be more likely to report that their work environments provide conditions that support professional practice.<sup>(14)</sup>

This work is anchored on Kanter's theory of structural empowerment, Kanter defined power as an ability to mobilize resources and achieve goals, employees are empowered when they have access to information, support, resources, and opportunities to learn and grow in their work setting. Jobs that provide discretion and that are central to organizational purpose increase access to these empowering structures. Similarly, strong networks with peers, superiors, and other organizational members increase access to these structures.<sup>(4)</sup> These systemic conditions, labeled formal and informal power by Kanter, influence empowerment, which then results in increased work effectiveness. Thus, power is

associated with autonomy and mastery, instead of domination and control, and maximizes the power enjoyed by each member of the organization.<sup>(15)</sup>

### Significance of the study:

The nurse work environment's that empower nurses to practice according to professional standards are more likely to support a culture of patient safety. When nurses find that their work environment provides the necessary information, Support, access to opportunity and resources to accomplish their work, they are more likely to describe their professional practice environment in Magnet hospital terms. This study aimed to investigate the relationship between structural empowerment, magnet hospital characteristics, and patient safety climate among nurses working in ICUs at Zagazig university hospital. These conditions encourage a patient's- centered care approach which would support a strong patient's safety culture.

### Aim of the study:

The aim of the current study was to: assess the relationship between structural empowerment, magnet hospital characteristics, and patient safety climate among nurses working in ICUs

### Research questions:

1. Is there a relationship between staff nurse's workplace empowerment and magnet hospital characteristics in their work settings?
2. Is there a relationship between staff nurse's workplace empowerment and patient safety climate in their work settings?
3. Are the perception of access to workplace empowerment and magnet hospital characteristics in nurses' work environment related

to their perceptions of patient safety climate?

### Subjects and Methods:

#### Research design

A descriptive design was used in the current study.

#### Study setting:

The study was conducted at the medical and surgical intensive care units in Zagazig University Hospitals, with 198 beds and staffed 374 nurses. The capacity of the medical intensive care unit is 142 beds and the surgery intensive care unit is 56 beds.

#### Study subjects:

A convenience sample of 263 nurses were selected from which 132 nurses working in the medical intensive care unit and 131 nurses in the surgical intensive care unit who were agreed to participate in the present study. They were selected randomly from the total sample (374 nurses, 215 nurses in the medical intensive care unit and 159 nurses in the surgical intensive care unit).

#### Tools of data collection:

Data were collected by using three tools:

**Tool (1): Conditions of Work Effectiveness Questionnaire-II (CWEQ):** It was developed by Laschinger et al. <sup>(16)</sup> to measure nurses' perception of structural empowerment. It consisted of two parts:

- **The first part:** *Personal characteristic* sheet which includes nurses' name, age, gender, educational qualification, years of experience, and unit of work.
- **The second part:** Questionnaire sheet to measure six components of structural empowerment, which are: nurses' perceptions of access to opportunity, information, support, resources, formal power, and informal power. The six components are tapped by 19 items, and the questionnaire has two additional items measuring

global empowerment, A five- point Likert scale was used for each item ranged from a lot (Five points) to none (one point), with higher levels of empowerment indicated by higher scores on the scale. The reliability of the questionnaire was measured by Cronbach alpha reliabilities that ranged from 0.70 to 0.95.

#### **Scoring system:**

The overall scores of each component are calculated by taking the average (total score divided by number of items) of the respondent's score for each of the component and multiplying this by 100 to convert it into percent score.

#### **Tool (2): The Lake's Practice Environment Scale of the Nursing Work Index:**

It was developed by Lake<sup>(17)</sup> to measure nurses' perception of magnet hospital characteristics, which includes 30 items on a four-point Likert scale ranging from strongly agree (4) to strongly disagree (1). This scale has five components of magnet hospital characteristics, which include ; nursing participation in hospital affairs (8 items) ; nursing foundations for quality of care (6 items); nurse manager ability, leadership, and support of nurses (8 items); staffing and resource adequacy (5 items); and the degree of collegial nurse/physician relationships (3 items). Scoring was reversed to create high scores, which signified a high level of magnet hospital characteristics in the work setting. The Cronbach alpha reliabilities for all subscales were acceptable ranging from 0.65 to 0.84.<sup>(17)</sup>

#### **Tool (3): The Safety Climate Survey:**

It was developed by Sexton and Thomas<sup>(18)</sup> to measure nurses' perception of patient safety climate levels, It consisted of 19 items with five-point Likert scale ranging from strongly agree (5) to strongly disagree (1). Higher levels of patient safety climate correspond to higher scores on the scale. The Cronbach alpha

reliability coefficient for this scale was, 0.81.

#### **Validity and reliability:**

The tools of data collection were translated into Arabic. Before data collection, the researcher established content validity of the tools by asking seven faculty members at the Faculty of Nursing Zagazig and Ain Shams Universities to evaluate each item using a structured form addressing readability, clarity, and congruence with the definitions of the constructs and acceptability. Their comments, generally around selection of vocabulary and sentence construction, were used to revise the tools. Reliability of tool indicated accuracy with respect stability and reliability in gathering data. The Reliability of the tool was assisted through test and retest. It was measured by administered test twice at two different points in time. This result indicated that there was no change needed on the tool.

#### **Field work:**

Responses to complete the tools took 30-45 minutes. The researcher collected the data from nurses twice /weekly in the morning and afternoon shifts and the study consumed one month starting from March 2014.

#### **Pilot study:**

Pilot study was conducted on 10% of the sample. This sample was excluded from the total sample. No further modifications were suggested. It helped in identifying clarity comprehension of the items and to estimate needed time to fill the questionnaire.

#### **Administrative and ethical considerations:**

An approval to conduct the study was obtained from the Dean of the Faculty of Nursing, Zagazig University and from the Director of Zagazig University Hospitals. Nurses were informed of the purpose of the study and allowed to complete tools. They were informed that their participation in the study was completely voluntary and they have the right to withdraw

from the study without giving any reason. Participants were assured about confidentiality that no individual information would be shared with others and that it will be used only for research purpose.

**Statistical analysis:**

Data entry and statistical analysis were done using the statistical package for social science (SPSS), version 16.0 statistical software package. Data were presented using frequency, percent (%), Mean ( $\bar{X}$ ), and standard deviation ( $\pm$ SD). Test of significance was used to compare the study groups and analysis of variance. P-value,  $< 0.05$ , was considered as statistically significant, and  $< .001$ , was considered as highly statistically significant.

**Results:**

**Table (1):** Demonstrates characteristics of nurses. It reveals that about half of nurses (50.2%) worked in medical unit, 48.7% of participants with age category from 30 years to more with a mean of 30.2, and SD  $\pm 7.8$ , almost all nurses (98.5%) were female, the mean of total experience in nursing was 11.4 years, and SD  $\pm 7.6$ , while it was  $8.3 \pm 6.5$  in their current specialty. Regarding to qualification, more than half of nurses (52.5%) had nursing school diploma, while 11.8 % of them had specialty diploma.

**Table (2):** Shows mean and standard deviations of structural empowerment, magnet hospital characteristics and patient safety climate. According to the table, moderate structural empowerment and global empowerment were reported by nurses ( $x = 2.96$ ,  $\pm$ SD=0.76 with percentage of 59.2% & ( $x = 2.67$ ,  $\pm$ SD= 1.30 with percentage of 53.4% respectively). Access to opportunity and informal power were ranked as a highest mean scores as reported by nurses ( $x = 3.29$ ,  $\pm$ SD 0.92 &  $x = 3.26$ ,  $\pm$ SD = 1.06 respectively), while the access to formal power was ranked as

the lowest mean score ( $x = 2.49$ ,  $\pm$ SD = 0.96), As well, nurses reported moderate levels of overall magnet hospital characteristics ( $x = 2.73$ ,  $\pm$ SD= 0.54 with percentage of 68.25%), collaboration relationships was ranked as the highest score of magnet characteristics, while management ability was the lowest score of magnet hospital characteristics ( $x = 3.13$ ,  $\pm$ SD= 0.90 &  $x = 2.43$ ,  $\pm$ SD= 0.83) respectively). In addition, the table reveals that the nurses had a moderate level of patient safety climate ( $x = 3.15$ ,  $\pm$ SD= 0.76 with the percentage of 63%).

**Table (3):** Displays the relations between structural empowerment, magnet hospital characteristics and patient safety climate score. The table demonstrates highly statistically positive significant relations between all components of structural empowerment, nursing participation and foundation for care as components of magnet hospital characteristics, except access to opportunity. The table also indicates that there are positive relations between all components of structural empowerment, global empowerment and patient safety climate score.

**Table (4):** Displays correlation matrix between structural empowerment, magnet hospital characteristics and patients' safety climate scores. The table indicates statistically significant correlations between structural empowerment and both magnet hospital characteristics and patient safety climate scores. ( $r=.187$ ,  $.485$  respectively). As well, there is a positive correlation between magnet hospital characteristics and patients' safety climate scores. ( $r=.294$ )

**Table (5):** Presents correlations between structural empowerment, magnet hospital characteristics, patients' safety climate scores and personal characteristics of nurses. According to the table, there are statistically significant positive correlations between nurses' age and

magnet hospital characteristics and patients' safety climate ( $r=0.132$  &  $0.151$  respectively); as well there was a statistically significant positive correlation between nurses' experience in nursing field and patients' safety climate ( $r=0.134$ ).

### Discussion:

Structural empowerment is a plausible precursor to "magnetism" in hospital work environments. Kanter argues that social structures within the work environment that provide employees with access to information, support, resources, strong interpersonal relationships, and opportunities to learn and grow are empowering and allow employees to accomplish their work in meaningful ways that encourage a patient – centered care approach, which would support a strong patient safety culture.<sup>(19)</sup>

The aim of the present study was to investigate the relationship between structural empowerment, magnet hospital characteristics and patient safety climate among nurses working in ICUs

The finding of the current study reveals that positive relationships were found not only between structural empowerment and magnet hospital characteristics but also between these variables and perceptions of nurses regarding patient safety culture within the unit. These relationships are consistent with the hypothesis that access to structural empowerment factors and characteristics of magnet hospitals are attributes of hospitals that have a strong culture of patient safety. This suggests that healthcare organizations that provide nurses with high levels of access to information support, and resources are also organizations that exhibit high levels of magnet hospital characteristics, which support professional nursing practice. The results also suggest that organizations in which nurses are empowered to practice their profession optimally are organizations that

optimize conditions for providing safe patient care.

This finding was in agreement with the study done in Canada by Armstrong and Laschinger<sup>(1)</sup>, who found strong relationships between structural empowerment, magnet hospital characteristics and perceptions of patient safety culture among staff nurses. As well, Mohamed<sup>(20)</sup> found a positive correlation between structure empowerment scores of nurses and their perception on patient safety culture.

The findings of the present study shows that the nurses perceived themselves to be moderately empowered, this result could be due to that the nurses had access to structural empowerment factors such as; information, resources, support, and opportunity in moderate level. This result was in agreement with Armellino<sup>(21)</sup>, while it disagreed with the study done in Ain Shams University by Yakob et al.,<sup>(22)</sup> who found that nurses generally reported low level scores related to work empowerment.

Regarding the structural empowerment factors, access to opportunity and resources had the highest score as reported by nurses, while the access to information ranked as a lowest score. The aforementioned results could be expected because nurses in the present study were employed in the ICU, traditionally, ICU areas have offered excellent opportunities challenging work for nurses either in their contact with patients or with the health team members. Moreover, nurses working in these units have opportunities to learn new skills; as well access to resources such as equipment, supplies and time which makes it possible to deliver the kind of care expect of themselves. The lowest access to information reported by nurses could be attributed to lack of communication and the place of nurses at the bottom of the hierarchy

could result in limited opportunities for access to communication channels within the organization.

The finding of the present study shows that the informal power had higher score compared to formal power; this may be due to the presence of collaboration with physicians on patient care, and the help from peers and nurse manager if there is a problem. On the other side, the absence of obtaining rewards for innovation and creation in job complexity in the work as a result of ambiguity of their activities related to the job and the absence of job description. This result was in accordance with Armellino<sup>(21)</sup> and Walston<sup>(23)</sup> who found that the access to opportunity is the most empowering factor in the work environment and the informal power had higher score than formal power. Similarly, Yakob<sup>(22)</sup> found that the access to information had the lowest score. However, these results disagreed with that of a study done by Laschinger et al.,<sup>(24)</sup> who found that the access to information had the highest score, differences in these scores may be related to the organization's structure and management commitment to provide access to opportunity, information, and resources, or to the diversity within the group's surveyed.

The finding of the present study reveals that the nurses belief had moderate level of magnet hospital characteristics, this may be due to that the nurses rated their work environment moderate in the structural empowerment access to the empowering factors moderately and the collaborative relationship was ranked as the most characteristics this could be due to the good relationships and presence of spirit of team between nurses and physicians. This finding was agrees with that of Armstrong and Laschinger<sup>(1)</sup> who clarified access to information, resources, both formal and informal power were positively related to nurses' perceptions of magnet hospital characteristics' domains related to nursing

participation, foundation, and collaboration in their work settings. The explanation to these results is that the access to resources and information were the most important empowerment structure for nurse practitioners, as they often serve as coordinators for the healthcare team; communicating patients' needs and care with other healthcare providers; communicating with physicians, staff nurses, and families; and referring patients to other specialized services.

Therefore, obtaining timely information from others is the key and benefits the organization as well as the patient. When timely information is available, needless treatment delays are avoided. This allows nurse practitioners to execute their role professionally, as well, the importance of good alliances with peers and other health professionals' support. Aiken<sup>(25)</sup> claimed that good nurse-physician relationships are key features of magnet hospital settings. Effective alliances are possible when there is mutual respect among parties and commitment to common goals. These results are in agreement with that of the study done in Canada by Laschinger et al.<sup>(13)</sup>

The finding of the present study highlighted that the nurses had moderate level of perceived patients' safety climate. This finding can be attributed to that nurses perceived themselves to be moderately empowered and the moderate level of magnet hospital characteristics, which not encourage nurses to participate in enhancing safety activities and communication channels in order to obey safety regulations. This finding agrees with Armstrong and Laschinger<sup>(1)</sup> and Abdou and Saber.<sup>(26)</sup> However these findings are in disagreement with those of the study done by Abbas et al.<sup>(12)</sup> who found that the majority of nurses conveyed negative perception toward patient safety.

The finding of the current study reveals that there was no statistically significant relation between the total score of structural empowerment and

the personal characteristics of nurses, the researcher relates this result to that the access to information, support, resources and opportunity is not based on age, years of experience, educational qualification but depends on the system of the administration within the hospital. This finding is in agreement with the study carried out by Mohamed.<sup>(20)</sup>

The finding of the present study shows that there were statistically significant relations between the patient safety climate score and personal characteristics of nurses related to age and years of experience. As well there is a statistically significant relation between the magnet hospital characteristic scores and nurses' age. It can be noticed that older nurses, and those with more years of experience in the work, significantly indeed are having better attitude toward patients' safety climate and magnet hospital characteristics, compared with younger nurses and those with Less years of experience. This might be due to that older nurses and with more years of experience are more satisfied with managers' support because they accept that older nurses could be more knowledgeable, displaying more positive attitudes to satisfy and possibly are more committed to work than younger ones.

This finding goes relatively with the results of Harris and McKesson,<sup>(27)</sup> suggested that older nurses become more committed because of increased job satisfaction and having obtained better safety attitudes. While this finding disagreement with the studies of Shih<sup>(28)</sup>, Ballangrud et al.,<sup>(29)</sup> who found significant differences in nurses perceptions of patient safety regarding types of units.

#### **Conclusion:**

The findings of the current study reveals that positive relationships were found not only between structural empowerment and magnet hospital characteristics but also between these

variables and perceptions of patients' safety climate among nurses.

#### **Recommendations:**

Based on the findings of this study, it's recommended that:

- Nurse Managers must provide staff nurses by sources of job-related empowerment, namely formal power, access to opportunities, information, Support and resources.
- Nurses must be professionally empowered through formal organizational structures in ways that recognize nurses professionally beyond their ability to simply make clinical decisions as well as increasing their feeling of autonomy.
- The nurse managers should have to focus less on control and more on the coordination, integration, and facilitation of nurses' work.
- Nurses' access to information about organizational policies and happenings can be increased by means of "information hotlines" on voicemail or e-mail systems.
- The nurse managers can stay in touch with staff through periodic surveys and in regularly scheduled open forums to discuss work issues.
- Increasing the level of nursing education by providing in-service education program programs, such as career ladders, provide a means for recognizing nurses' experience and expertise.
- There should be blame-free system for identifying threats to patient safety, sharing information and learning from events.
- Patient safety needs to be incorporated into the educational curricula of schools of nursing

#### **Further research:**

- Multi-disciplinary interventions to improve patient safety need to be developed, implemented, and their effectiveness assessed.

**Table (1): Personal characteristics of nurses in the study sample (n=263)**

<b>Personal Characteristics of Nurses</b>	<b>Frequency</b>	<b>Percent</b>
<b>Unit:</b>		
▪ Medical	132	50.2
▪ Surgical	131	49.8
<b>Age (in years):</b>		
▪ <25	71	27.0
▪ 25-	64	24.3
▪ 30+	128	48.7
<b>Range</b>	19.0-56.0	
<b>Mean±SD</b>	30.2±7.8	
<b>Sex:</b>		
▪ Male	4	1.5
▪ Female	259	98.5
<b>Total experience in hospital (in years)</b>		
▪ <5	47	17.9
▪ 5-	73	27.8
▪ 10-	57	21.7
▪ 20+	86	32.7
<b>Range</b>	0.0-39.0	
<b>Mean±SD</b>	11.4±7.6	
<b>Experience in current specialty (in years):</b>		
▪ <5	83	31.6
▪ 5-	74	28.1
▪ 10+	106	40.3
<b>Range</b>	0.0-31.0	
<b>Mean±SD</b>	8.3±6.5	
<b>Nursing qualification:</b>		
▪ Bachelor	58	22.1
▪ Technical institute diploma	36	13.7
▪ Specialty diploma	31	11.8
▪ Nursing school diploma	138	52.5

**Table (2): Mean scores and standard deviations of structural empowerment, magnet hospital characteristics and patient safety climate as perceived by nurses in the study sample (n=263)**

Item	Mean ± SD	Median
<b>Empowerment variables</b>		
<b>I. Structural empowerment</b>		
▪ Opportunity	3.29±0.92	3.30
▪ Information	2.70±1.00	2.70
▪ Support	2.95±1.00	3.00
▪ Resources	3.01±1.11	3.00
▪ Formal power	2.49±0.96	2.30
▪ Informal power	3.26±1.06	3.30
<b>Total empowerment</b>	2.96±0.76 59.2%	2.90
<b>Global empowerment</b>	2.67±1.30 53.4%	2.50
<b>II. Magnet hospital characteristics:</b>		
▪ Nursing participation in hospital affairs	2.82±0.65	2.90
▪ Nursing foundation for quality of care.	2.62±0.76	2.60
▪ Nurse's management ability	2.43±0.83	2.60
▪ Adequate staff and resources	2.85±0.71	3.00
▪ Collegial nurse physician relationship	3.13±0.90	3.30
<b>Total Magnet hospital characteristic</b>	2.73±0.54 68.25%	2.70
<b>III. Patient safety climate</b>	3.15±0.76 63%	3.20

**Table (3): Relations between structure empowerment, magnet hospital characteristics and patient safety climate scores as perceived by nurses in the study sample (n=263)**

Structural Empowerment	Spearman Rank Correlation					Patient Safety Climate
	Magnet Hospital Characteristics					
	Nursing participation in hospital affairs	Nursing foundation for quality of care	Nurse manager ability, leadership & support of nurses	Staff and resources adequacy	Collegial nurse physician relationship	
▪ Opportunity	0.086	0.064	-0.045	0.042	0.028	.211**
▪ Information	.244**	.161**	0.117	0.106	0.099	.333**
▪ Support	.141*	0.058	-0.007	0.027	0.051	.385**
▪ Resources	.214**	.125*	-0.021	0.047	0.04	.387**
▪ Formal power	.265**	.221**	0.049	0.104	0.114	.353**
▪ Informal power	.178**	.125*	-0.032	0.099	.200**	.445**
▪ <b>Global empowerment</b>	.229**	0.106	0.096	0.091	.156*	.329**

\*Statistically significant at  $P < 0.01$ \*\* Statistically significant at  $P < 0.05$

**Table (4): Correlation matrix of total structure empowerment, magnet hospital characteristics and patient safety climate scores (n=263)**

Items	Spearman Rank Correlations		
	Structure empowerment	Magnet hospital characteristics	Patient safety climate
▪ Structure empowerment	-	.187**	.485**
▪ Magnet hospital characteristics	.187**	--	.294**
▪ Patient safety climate	.485**	.294**	--

**Table (5): Correlations between structural empowerment, magnet hospital characteristics, patient safety climate scores and personal characteristics of nurses**

Personal Characteristics of Nurses	Spearman rank correlation		
	Structural Empowerment	Magnet Hospital Characteristics	Patient Safety Climate
▪ Age	0.068	.132*	.151*
▪ Experience (total)	0.056	0.093	.134*
▪ Experience ( in unit)	0.004	0.069	0.085
▪ Nursing qualification	-0.072	-0.052	-0.033
▪ (reference :bachelor)			

**References:**

1. Armstrong, K.J. & Laschinger H.: Structural empowerment, magnet hospital characteristics, and patient safety culture. *Journal of Nursing Care Quality*. 2006; 21 (2):124-132.
2. Malliarakis, K.: Learning objects empowerment: Retrieved at May 17, 2010 Available at: <http://learn.gwumc.edu/hscidist/LearningObjects/Empoerment/index.htm>. Accessed on October; 2014
3. Leiter M.P. & Laschinger H.K.: Relationships of work and practice environment to professional burnout. 2011; *Nursing Research*; 55(2): 137-146.
4. Laschinger H.K., Gilbert S., Smith L.M. & Leslie, K.: Towards a comprehensive theory of nurse/patient empowerment: Applying Kantar's Empowerment Theory to patient care. 2010; *Journal of Nursing Management*; 18, 4-13. Available at: <http://dx.doi.org/10.1111/j.1365-2834.2009.01046.x>. Accessed on October; 2014
5. O' Brien J.L.: Structural empowerment, psychological empowerment, burnout in registered staff nurses working in outpatient dialysis center. Doctorate Thesis of Philosophy, University of New Jersey, Newark. May; 2010. p.6
6. Martin T.A. & Ryan M.: Formal and informal power, access to work empowerment structure, and intent to stay .Master of Science, Muncie, Indiana, December, 2010.
7. Kanter R.: *Men and women of the corporation*. 2<sup>nd</sup> ed. New York: Basic Books. 1993
8. Stewart J., McNutty R., Griffin M. & Fitzpatrick J.: Psychological empowerment and structural empowerment among nurse practitioners. *Journal of the American Academy of Nurse Practitioners*. 2010; 22: 27-34.
9. Matsubara S., Hagihara A. & Nobutomo A.: Development of a patient safety climate scale in Japan. *International Journal for*

- Quality in Health Care*. 2008; 20(3): 211–220.
10. Parisotto M.T. & Marcelli D. : What causes an improved safety climate among the staff of a dialysis unit? Report of an evaluation in a large network. *Pub Med, J Nephrol*. 2011; Sep-Oct; 24(5):604-12.
  11. Glendon A.I. & Litherland, D.K.: Safety climate factors, group differences, and safety behavior in road construction. *Safety Science*. 2011; 39: 157-188.
  12. Abbas H., Bassiuni N. & Baddar F: Perception of front-line healthcare providers toward patient safety: A preliminary study in a university hospital in Egypt. *Advanced Practice Nursing Journal*. 2008; Available at: <http://www.medscape.com/viewarticle/570921>. Accessed on March; 2015
  13. Laschinger H.K., Almost J. & Hodes D.T.: Workplace empowerment and magnet hospital characteristics making the link. *Journal of Nursing Administration*. 2003; 33 (7/8): 410 - 422.
  14. Armstrong K., Lachinger H. & Wong C.: Workplace empowerment and magnet hospital characteristics as predictors of patient safety climate. *Journal of Nursing Care Quality*. 2009; 24(1): 55-62
  15. Drenkard K.: The business case for magnet. *Journal of Nursing Administration*. 2010; 40(6): 263-271.
  16. Laschinger H.K.S., Finegan J., Shamian J. & Wilk P.: Impact of structural and psychological empowerment on job strain in nursing work settings: Expanding Kanter's Model. *J. Nurs Adm*. 2001; 31(5): 260-272.
  17. Lake E.: Development of the practice environment scale of the nursing work index. *Res Nurs Health*. 2002; 25: 176-188.
  18. Sexton J.B. & Thomas E.: The safety climate survey: Psychometric and benchmarking properties. Available at: <http://www.lhi.org>. Accessed on March 14, 2005.
  19. Lang T.A., Hodge M., Olson B., Romano P.S. & Kravitz R.L.: Nurse-patient ratios. A systematic review on the effect of nurse staffing on patient, nurse employee and hospital outcomes. *J Nurs Adm*. 2004; 34 (7/8): 326-337.
  20. Mohamed G. A.: Relationship between structural empowerment and patient safety culture among nurses at Zagazig Health Insurance Hospital. Master Thesis, Nursing Administration Department, Faculty of Nursing, Zagazig University; 2014.
  21. Armellino D. M.: Structural empowerment and patient safety culture of nurses working in critical care units. 2008. Available at: <http://www.bookgoogle.com.eg>. Accessed on March; 2015
  22. Yakob E.T., Hassan F. H., Abedalla S.M.: Work empowerment as perceived by nurses and physicians working in national heart institute. Master thesis, Nursing Administration Department, Faculty of Nursing, Ain Shams University; 2010.
  23. Walston L.: Structural empowerment and job satisfaction among nurses. Published Master Thesis, Ball State University Mncie, Indiana, December; 2012.
  24. Laschinger S.H., Leiter M.P., Day A., Gilin-Oore D. & Mackinnon S.P.: Building empowering work environments that foster civility and organizational trust. *International Journal of Nursing Studies*. 2012; 61 (5):316-325.
  25. Aiken L.H., Havens D.S. & Sloane D.M.: The magnet nursing services recognition program: A comparison of two groups of magnet hospitals. *Am J Nurs*. 2002; 100 (3): 26-36.
  26. Abdou H. A. & Saber K. M: A baseline assessment of patient safety culture among nurses at student university hospital. *World Journal of Medical Sciences*. 2011; 6 (1), 17-26.
  27. Harris I., & McKesson M.: Survey of frontline nurses' perception of the state of patient safety. Available at: <http://www.mckesson.com/>. Accessed December, 2014

28. Shih C.L.: An exploratory study of patient safety culture in hospitals: Patient safety climate and its association with hospital workers' safety practice. Published Master Thesis, Graduate Institute of Health Care Organization Administration, National Taiwan University; 2004.
29. Ballangrud R., Hedelin B. & Hall-Lord M. L.: Nurses' perception of patient safety climate in intensive care units: A cross – sectional study. *Intensive Critical Care Nursing*, 2012; Dec; 28(6): 344-354.

## العلاقة بين التمكين الوظيفي والممارسة البيئية للتمريض ومناخ سلامة المريض من قبل الممرضات بوحدات الرعاية المركزة

فاطمة جودة متولي

مدرس بقسم إداره التمريض - كلية التمريض - جامعه الزقازيق

### مقدمة:

أظهرت النتائج وجود علاقة إيجابية ليس فقط بين التمكين الوظيفي والخصائص البيئية للمستشفى ولكن أيضا بين هذه المتغيرات وبين مناخ سلامة المريض بالوحدة.

### الخلاصة:

تم استخلاص الآتي:

يوجد علاقة إيجابية ليس فقط بين التمكين الوظيفي والخصائص البيئية للمستشفى ولكن أيضا بين هذه المتغيرات وبين مناخ سلامة المريض لدى الممرضات بالوحدة.

### التوصيات:

في ضوء هذه النتائج فإن الدراسة توصي بما يلي:  
توصيات خاصة لتمكين الممرضات:

- يجب ان يتم تمكين الممرضة من خلال البناء التنظيمي الرسمي للمؤسسة للسماح للممرضة للمشاركة في صنع القرارات التي تخص المريض.
- تركيز مديرات التمريض علي وجود الترابط بين الممرضات في العمل لتسهيل عملهن.
- اهتمام مديرات التمريض باعطاء المعلومات وتوفير الأدوات والمساندة الوظيفية التي تحتاجها الممرضات لتحقيق أهداف المؤسسة .
- الاهتمام بعقد الندوات العلمية والتدريب المستمر لتحسين خبرات ومعلومات الممرضات.

### توصيات خاصة بسلامة المريض:

- يجب أن تكون ثقافة سلامة المريض جزء لا يتجزأ من برامج توعية الممرضات ومناهج التمريض.
- يجب أن تركز سياسة التمريض علي التوجيه لسلامة المريض فضلا عن سياسه العقاب.

### توصيات لدراسات مستقبلية :

- دراسات مستقبلية لتحسين وتطوير سلامة المريض وقياس مدي تطبيقها وفعاليتها .

إن بيئة التمريض العملية التي تتيح تمكين الممرضة لممارسة عملها طبقا لمعايير الممارسة المهنية تكون أكثر إتاحة لمساندة ثقافة سلامة المريض وعندما تجد الممرضة أن بيئة العمل تمدها بالمعلومات اللازمة والمساندة الوظيفية والأدوات اللازمة لاتمام العمل تكون هذه البيئة مثالية للممارسة الوظيفية.

### الهدف من الدراسة:

هدفت الدراسة الحالية إلي فحص العلاقة بين التمكين الوظيفي والممارسة البيئية للتمريض ومناخ سلامة المريض من قبل الممرضات بوحدات الرعاية المركزة بمستشفيات جامعه الزقازيق.

### التصميم البحثي:

تم استخدام تصميم وصفي .

### مكان الدراسة:

تم تنفيذ هذا البحث بوحدات الرعاية المركزة (عناية الباطنة وعناية الجراحة) بمستشفيات جامعة الزقازيق .

### عينه الدراسة:

تكونت عينه الدراسة من جميع الممرضات اللاتي تعملن بوحدات الرعاية المركزة وعددهن ٢٦٣ ممرضة واللاتي وافقن علي المشاركة في البحث بحيث لا تقل سنوات الخبرة لديهن عن سنة في مجال التمريض بوحدته الرعايه المركزة.

### أدوات جمع البيانات :

١. استمارة ذاتية الملئ لجمع البيانات عن الخصائص الديمجرافية
٢. مقياس التمكين الوظيفي لقياس التمكين لدي الممرضات في العمل.
٣. مقياس لآك لقياس الممارسة البيئية للتمريض .
٤. استمارة استبيان لقياس مدي وعي الممرضات تجاه مناخ سلامة المريض.

### النتائج:

أظهرت النتائج أن الممرضات قد سجلن درجة متوسطة من التمكين الوظيفي وكان العنصران اتاحة الفرصه والسلطه الغير رسمية هما الأعلى بينما سجلت السلطه الرسمية النسبة المنخفضة. وسجل التمكين الشامل درجة متوسطة وكذلك مناخ سلامة المريض والممارسة البيئية للمستشفى. وقد