

## Nursing Practice Environment and Resilience: The Relation to Intention to Leave among Staff Nurses

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### Abstract

**Background:** practice environment in nursing is very crucial as nurses' resilience, they contributes in increasing nursing work satisfaction, work engagement and participate in decreasing intention to leave. **Aim of the Study:** was to assess nursing practice environment, resilience and its relation to intention to leave among staff nurses. **Research design:** Analytical cross sectional design was used. **Setting:** The study was conducted at Beni-Suef University hospital. **Subjects:** A sample of 220 staff nurses. **Tools:** Data were collected by using: Practice Environment Scale of the Nursing Work Index (PES-NWI), Resilience Scale (RS-14) and anticipated turnover survey (ATS) **Results:** Near to two thirds of staff nurses were reported positive practice environment, about two thirds of staff nurses reported high resilience level, more than two third of staff nurses had low intention to leave. There was a statistically significant negative correlation between nursing practice environment and intention to leave among staff nurses. **Conclusion and Recommendation:** Raising awareness of hospitals management regarding positive working environment and how it's very crucial for nurses satisfaction, burnout and intention to leave, Design programs for nurses to effectively maintain their resilience level, Conduct further researches on factors affecting staff nurses practice environment, resilience on current study setting.

**Keywords:** Intention to Leave, Nursing Practice Environment, Resilience, Staff Nurses.

### Introduction

Shortage of nurses remains one of the most important problems faced by health care systems in the whole world. A growing line of work confirms that, in countries with distinctly different healthcare systems, nurses reported similar shortcomings in their work environments and the quality of patient care. Thus, efforts to maintain the practice environment properly are necessary and researches is required to examine the condition of practice environments (*Organization for Economic Co-operation and Development, 2016*).

The practice environment acts as an external environment for nurses, if the working environment is good, job dissatisfaction and burnout will decrease, the intention to stay in the hospital will increase, and the quality of patient care will improve (*Sloane et al., 2018; Jeon and Han., 2019*).

Also, an inadequate work environment causes health/safety problems, reduced work performance among nurses contributing in poor

quality patient care. According to the JD-R model, supportive work practice environment act as a kind of job resource which could increase the nurse engagement through the motivation process. Furthermore, several studies pointed out that the supportive work environment could improve nurses professionalism, empowerment, job satisfaction, engagement and decrease turnover intention (*Bruyneel et al., 2017; Wan et al., 2018*).

Another vital concept associated with intention to leave is resilience, which refers to the knowledge, skills and abilities that enable a person to bounce back after experiencing significant stress (*Lanz, 2020*). Resilience help nurses to adapt and survive in stressful working conditions and mitigates mental illnesses such as depression and posttraumatic stress syndrome (*Mealer et al., 2017*). It acts as a buffer to protect nurses from the harmful effects of stress (*Henwood, 2019*).

Also, it is a dynamic concept related to the power of recovery over time and can be nurtured through experience and education (*Kester & Wei, 2018; Jones, 2020*). In addition, it activates the positive internal energy of nurse (*Stutzer and Bylone., 2018*). Nurses with higher resilience

levels actively utilize internal and external resources to overcome difficulties and minimize the negative effects of stress resulting in good work performance. However, when the level of resilience is low in nurses, the ability to manage stress effectively decreases, leading to negative consequences such as burnout and turnover (*An et al., 2018*).

A registered nurse's intention to leave (ITL) is a self-reported indication of a nursing professional's plan to leave his/her job. ITL is an important concern for patients, nurses, health care organizations, and communities around the world. Nurses' ITL and its associated turnover are matters of growing importance internationally as the world health organization reported that nurses and midwives account for nearly 50% of the entire global health care workforce (*World Health Organization, 2018*).

Evidence is growing about the negative effects to patients, organizations and the greater community as a result of nurses' ITL and its subsequent turnover. Nurses' ITL is not the same as nurse turnover, but ITL that leads to nurse turnover may decrease available nursing staff and contribute to increased workloads on hospital units. Nursing staff shortages and increased workloads have contributed to nurse-reported ITL, burnout, and job dissatisfaction (*Shin et al., 2018*).

### **Aim of the study**

This study aims to assess nursing practice environment, resilience and its relation to intention to leave among staff nurses.

### **Research question**

What is the relationship between nursing practice environment, resilience and intention to leave among staff nurses?

### **Subjects and methods**

#### **Research design:**

The research design utilized in this study was Analytical cross-sectional design.

#### **Setting:**

This study was conducted at Beni-Suef university hospital.

#### **Subjects:**

The subjects of this study included (220) staff nurses out of (900). They were selected randomly and agreed to participate in the study. The main inclusion criteria was staff nurses with experience more than one year

#### **Tools of data collection:**

The data for this study were collected by using three tools namely: practice environment scale of the nursing work index (PES-NWI), resilience scale (RS-14)), and intention to leave survey (anticipated turnover survey (ATS).

1. **The first tool:** Practice Environment Scale of the Nursing Work Index (PES-NWI): This tool developed by (*Lake, 2002*). And was adopted by the investigator. It consisted of two parts:

**A.** First part: Personal characteristics of the study subjects:

This part intended to collect data related to the personal and job characteristics of study subjects such: age, gender, marital status, educational qualifications, years of experience, current work department, and years of experience in this department.

**B.** Second part: It aimed to assess staff nurses' perception of the work environment. It consisted of (31) items classified into five main dimensions.

- (a) Nurse participation in hospital affair. (9) Items.
- (b) Nursing foundations for quality of care. (10) Items.
- (c) Nurse Manager ability, leadership, and support for nurses. (5) Items.
- (d) Staffing and resource adequacy. (4) Items.
- (e) Collegial nurse-physician relations (3) Items.

#### **❖ Scoring system:**

The response of study sample was checked against a four - point Likert scale each item had

four responses ranging from: strongly agree (score of 4), agree (score of 3), disagree (score of 2) and strongly disagree (score of 1). (Lake, 2002).

## 2. The second tool:(Resilience Scale )(RS-14)

This tool developed by (Wagnild, 2009). and was adopted by the investigator it aimed to assess the resilience among staff nurses. It included (14) items.

- a. Specifically meaning/ purposefull life (items 2, 9, 13).
- b. Perseverance (items 6 and 8).
- c. Equanimity (items 3 and 10).
- d. Self-reliance (items 1, 5, 7, 12, 14).
- e. Existential aloneness (items 4 and 11)

### ❖ Scoring system:

The responses of study sample was checked against seven–point Likert scale as follow; (1) strongly disagree, (2) disagree, (3) somewhat disagree, (4) neither agree nor disagree, (5) somewhat agree, (6) agree and (7) strongly agree.

3. The third tool: Intention to Leave: anticipated turnover survey (ATS):

This tool developed by (Hinshaw & Atwood, 1984) and was adopted by the investigator it aimed to assess intention to leave among staff nurses. The ATS addressed 12 separate responses regarding intention to leave.

### ❖ Scoring system:

The responses of study sample was checked against 7-point Likert scale ranging from strongly agree to strongly disagree as follow; strongly agree (score of 7), agree (score of 6), somewhat agree (score of 5), neither agree nor disagree (score of 4), somewhat disagree (score of 3), disagree (score of 2) and strongly disagree (score of 1).

## Preparatory phase

This phase started with a review of current and past, national and international related literature concerning the subjects of the study, using textbooks, articles, journals, and websites. This review was helpful to the researcher to be more acquainted with the research subject and review and develop the data collection tools.

### Tool validity

Content validity was ascertained by a panel of three experts in nursing administration to review the tool's clarity, relevance, and comprehensiveness. Their opinions were elicited regarding the format, layout, consistency, accuracy, and relevancy of the tool, based on experts` comments and recommendations; minor modifications were done.

### Tool reliability

The reliability of the study tools was tested using Cronbach`s alpha test to assess the internal consistency of the study tools and presented in the following table:

#### Reliability of the study tools.

Scales	N of Items	Cronbach's Alpha
Work environment	31	0.937
Resilience	14	0.938
Intention to leave	12	0.842

### A- Pilot study

It was conducted on sample of staff nurses representing 10% of the total subjects included in the study (22 staff nurses). The aim of this pilot was to evaluate the clarity, applicability and ability to easily understand the language of the questionnaire also, to estimate the time needed to fill the questionnaire, and if certain modifications are needed before actual data collection started.

### Fieldwork

It was carried out from the third week of November 2022 up to the end of January 2023. The researcher was available in the study settings 3 days per week in the study setting from 10 Am to 1 Pm by scheduled rotation. Data collection was done by nurses, who accepted to be included in the study after explaining the aim of the study. Nurses were asked to fulfill the study tools according to the availability of their free time throughout the day and some nurses were allowed to fulfill the study tools at home to be received by the researcher the next day. The average time required for fulfilling the three questionnaires was 30 minutes. Tools were collected and checked for completeness to ensure the absence of any nursing data.

### Ethical considerations:

The research approval was obtained from the Scientific Research Ethical Committee of The Faculty of Nursing, Ain Shams University before starting the study. The agreement was obtained from each nurse to participate in the study after an explanation of the study aim and its implications. A clear and simple clarification of the study and its expected outcomes was explained. They were assured that all data collected was used for scientific purposes. They informed that all the study subjects had the right to withdraw at any time from the study.

### Statistical design

Computerized data entry and statistical analysis were fulfilled using the Statistical Package for Social Sciences (SPSS) version 25. The obtained data were organized, analyzed, and represented in tables and graphs as required. Data were presented using descriptive statistics in the form of Number, Percentage, mean score, Standard deviation (SD), Pearson's correlation coefficient (r), and multiple linear regression were used to estimate the relationship between the variables. The Chi-square test was used to assess the relationship between participants

'personal data and the study variables. Statistical significance was considered at  $P\text{-value} \leq 0.05$  and highly significant at a  $p\text{-value} \leq 0.001$ , while the  $p$  value was considered insignificant at  $> 0.05$ .

### Results:

**Table (1):** shows that slightly more than half of staff nurses were  $< 30$  years old (52.7 %), had High average nursing diploma, had total experience less than 5 years (51.4%), respectively slightly more than one third had current experience 5-10 years (38.2 %), slightly less than two thirds of them were females (65.9 %), married (68.2%), and slightly less than one third was working in surgical department (31.4%).

**Table (2):** Indicate that 60% of staff nurses reported that nursing practice environment was positive while 40% of them reported that nursing practice environment was negative.

**Table (3):** shows that (65.9%) of staff nurses reported high resilience while (34.1 %) reported low resilience, (77.3%) of them reported low intention to leave while (22.7%) reported high intention to leave.

**Table (4):** Shows that there was a statistical negative significant correlation between nursing practice environment and intention to leave ( $p = -, 216$ ).

**Table (5):** shows multiple linear regression for turnover intention score revealed that there was a statistical significant negative correlation between nursing practice environment score and intention to leave score  $r\text{-square} = (0.47)$ .

**Figure (1):** scatter diagram plots shows that there was a statistically significant negative correlation between work environment and intention to leave among nurses, as when work environment total score increased, nurses intention to leave decreased.

Table (1): Job and personal characteristics in the study sample (n=220)

	Frequency	Percent
<b>Age:</b>		
<30	116	52.7
30-40	78	35.5
>40	26	11.8
<b>Range</b>	21-50	
<b>Mean±SD</b>	30.2± 6.7	
<b>Median</b>	29.0	
<b>Gender:</b>		
Male	75	34.1
Female	145	65.9
<b>Married:</b>		
No	70	31.8
Yes	150	68.2
<b>Nursing qualification:</b>		
Nursing diploma	87	39.5
High average Nursing diploma	113	51.4
Bachelor's degree	20	9.1
<b>Experience (current):</b>		
<5	56	25.5
5-10	84	38.2
>10	80	36.4
<b>Range</b>	<1.0-30.0	
<b>Mean±SD</b>	8.5±5.8	
<b>Median</b>	7.5	
<b>Experience (total):</b>		
<5	113	51.4
5-10	81	36.8
>10	26	11.8
<b>Range</b>	<1.0-20.0	
<b>Mean±SD</b>	5.2±3.7	
<b>Median</b>	4.0	
<b>Department:</b>		
Critical care	51	23.2
Surgical	69	31.4
Medical	48	21.8
Special units	35	15.9
Emergency	17	7.7

Table (2): Nursing practice environment as reported by nurses in the study sample (n=220).

Nursing practice environment	Frequency	Percent
Nurse participation in hospital affairs	124	56.4
Nursing foundations for quality care	145	65.9
Nurse manager ability, leadership, support	111	50.5
Staffing and resource adequacy	127	57.7
Collegial nurse-physician relations	122	55.5
<b>Total work environment:</b>		
Positive	132	60.0
Negative	88	40.0

**Table (3):** Resilience and intention to leave as reported by nurses in the study sample (n=220).

Resilience	Frequency	Percent
Specifically meaning/purposeful life	108	49.1
Perseverance	128	58.2
Equanimity	127	57.7
Self-reliance	156	70.9
Existential aloneness Total resilience:	142	64.5
High	145	65.9
Low	75	34.1
Intention to leave	Frequency	Percent
Intention to leave:		
High	50	22.7
Low	170	77.3

**Table (4):** Correlation matrix of nursing practice environment, resilience, and intention to leave total scores.

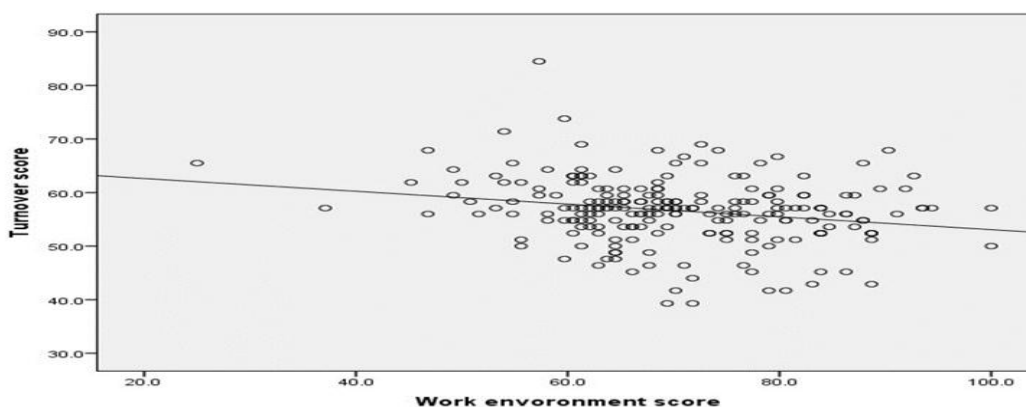
	Spearman's rank correlation coefficient		
	practice environment	Resilience	Intention to leave
Practice environment	1.000		
Resilience	.058	1.000	
Intention to leave	-.216**	-.087	1.000

(\*\*) Statistically significant at p<0.01

**Table (5):** Best fitting multiple linear regression model for intention to leave score (n=220)

	Unstandardized Coefficients		Standardized Coefficients	t-test	p-value	95% Confidence Interval for B	
	B	Std. Error				Lower	Upper
Constant	65.09	2.46		26.412	0.000	60.24	69.95
Nursing qualification	2.62	1.39	0.12	1.880	0.061	-0.13	5.36
practice environment score	-0.12	0.03	-0.24	-3.575	0.000	-0.19	-0.06

r-square =0.47 Model ANOVA: F=7.73, p=0.001 variables entered and excluded: age, gender, experience, department, marital status, resilience score



**Figure (1):** Correlation between total scores of nursing practice environment and intention to leave (n=220).

## Discussion:

The aim of the study was to find out nursing practice environment, resilience and its relation to intention to leave among staff nurses. And the study showed that there was statistically significant negative correlation between nursing practice environment and intention to leave among staff nurses.

So, attracting, retaining well qualified nurses and improving work environments has been recommended as an effective strategy of solving the nursing shortage through promoting nurses job satisfaction and reducing burnout (*Winslow et al., 2020*). So, As regards job and personal characteristics of the study sample the current study revealed that slightly more than half of staff nurses were < 30 years old, had high average nursing diploma, had total experience less than 5 years, respectively slightly more than one third had current experience 5-10 years, slightly less than two thirds of them were females, married, and slightly less than one third was working in surgical department.

The majority of staff nurses were young, this is may be due to older nurses usually leave the country to work abroad because outside jobs offer them higher salaries, and the majority also were females could be due to the high numbers of students who enter the faculty or school of nursing are females and the main core of nursing occupation is feminists, as well as the presence of nursing school and nursing institution attached to the hospital also, were technical institution This may be due to the interest of the community to the nursing profession as an occupation to get the salary.

In agreement with this, a study on (Effect of professional nursing practice environment and Psychological empowerment on nurses' readiness for change) found that the majority of them were females (*El-Sayed et al., 2019*).

On the same line a study in mallizia entitled (Nursing practice environment, resilience, and intention to leave among critical care nurses) revealed that the study sample were mostly female, married, and had five or fewer years of experience in the current unit (*Ying et al., 2021*).

As regard staff nurses report of their practice environment the present study result indicate that 60% of staff nurses in the study setting reported their practice environment were positive while, 40% considered it negative, the majority of staff nurses reported their practice environment was positive this may be due to good communication between staff nurses and all health care members, clear hospital policies and procedure.

The present study are in congruence with *Ying et al. (2021)* who applied a study in mallizia entitled (Nursing practice environment, resilience, and intention to leave among critical care nurses) who found that 76.4% of nurses reported their practice environment positive, while 23.6% rated it negative.

On the same line study in Saudi Arabia entitled (The nursing practice environment and nurse job outcomes) revealed that nursing practice environment report was high university hospital (*Ambani, et al., 2020*).

On the other hand, this finding in the line with *Aydoğmuş and Özlük (2022)*. Who applied a study entitled the (Relationship between Work Environments and Intention to Leave in Nursing) was found that the majority reported that their work environment was negative.

Also, the present finding disagreement with *Nantsupawat et al. (2017)*. in a study of (Effects of nurse work environment on job dissatisfaction, burnout, and intention to leave.) who reported that nurse's perception of their work environments was unfavorable.

As regards staff nurses report of their resilience the current study result revealed that 65% of staff nurses report high resilience, from the researcher point of view, staff nurses having high resilience level, may be due to they can meet responsibilities and accomplish their own expectations of themselves. Also, positive nursing practice environment in the hospital contributing in lower stress and high resilience level.

This study finding in the line with *Ying et al. (2021)*. in a study entitled (Nursing practice environment, resilience, and intention to leave among critical care nurses) who reported that slightly more than half of the staff was moderately resilient.

Regards intention to leave report the current study result revealed that more than two third of staff nurses reported low intention to leave while less than one third reported high intention to leave. low staff nurses intention to leave may be due to high social support for nurses and support from nurse leaders by offering flexible schedule, good relation with nurses and physician, the hospital offer free educational courses for all staff nurses and they also participate in decision making process.

This study finding are in congruence with *Halcomb & Bird (2020)* who applied a study entitled (Job Satisfaction and Career Intention of Australian General Practice Nurses) the finding was 72.8% of nurses reported low intention to leave; 7.9% report intention to leave; 19.3% were undecided.

On the same line this finding in agreement with *Piotrowski.,et al (2022)*,whose study of(Resilience, Occupational Stress, Job Satisfaction, and Intention to Leave the Organization among Nurses and Midwives during the COVID-19 Pandemic) and found that 25% of the sample reported high turnover intention.

As regard the correlation between nursing practice environment and intention to leave the current study finding revealed that there was a statistical significant negative correlation between nursing practice environment and intention to leave ,this is may be due to the quality of the nursing practice environment can impact a nurse's job satisfaction, level of stress, and overall well-being. For example, a positive nursing practice environment that fosters collaboration, communication, and teamwork can lead to a more positive work experience for nurses. Conversely, a negative or hostile work environment can lead to burnout, job dissatisfaction, and even turnover.

The present study result agree with *Simonetti (2019)* who applied study entitled "Association between nurses Work Environment, Nurse Job Outcomes, and Patient Experience in Chilean Hospitals." Reported that nurses in hospitals with poor work environments, as compared to good, had significantly higher odds of experiencing intent to leave.

Also, the study result in agreement with *Lee et al. (2020)*,who study on (The Intent to

Leave and Stay among Hospital Nurses in Korea) showed that there was strong negative correlation between nursing practice environment and intention to leave.

On the same line with *Huang et al. (2020)*,who study (Effects of Nursing Work Environment on Work- Related Outcomes among Psychiatric Nurses: A Mediating Model) indicated that nursing work environment had direct effects on nurses intention to leave.

The study finding in congruence with *Thomas-Hawkins et al. (2003)* who study on (Staff Nurses' Perceptions of the Work Environment in Freestanding Hemodialysis Facilities), found that the majority (80%) of nurses reported good work relations. However, they also reported low control over practice, and inadequate staff and resource, which was a source of frustration and led to intention to leave.

Furthermore, the study finding agree with *Alenazy et al. (2021)* Who study (The relationship between practice environment, job satisfaction and intention to leave in critical care nurses) and showed significant negative relationship between nursing practice environment and intention to leave.

Main while, the present study result disagreement with *Koy et al. (2020)* who applied study entitled "Registered nurses' perceptions of factors influencing nursing care quality: A structural equation modeling study. Reported a negative correlation between nursing practice environment and intention to leave.

### Conclusion & Recommendations:

Based on the study findings, it can be concluded that, near to two thirds of staff nurses reported positive practice environment while, more than one third of them reported it negative also, about two thirds of staff nurses report high resilience level, furthermore, more than two third of staff nurses had low intention to leave while less than one third reported high intention to leave. As regard the correlation between nursing practice environment and intention to leave the current study finding revealed that there were a statistically significant negative correlation between nursing practice



environment and intention to leave among staff nurses.

Based on the study findings, the proposed recommendations are suggested as following:

#### For nursing practice:

- Raising awareness of hospitals management regarding positive working environment and how it's very crucial for nurse's satisfaction and engagement.
- Developing campaigns indifferent media channels to shed light on the importance of nurses' wellbeing for quality of patient care.
- Develop strategies to eliminate triggers of negative work environment and disrupt resilience levels among nurses such as high workload and other factors.
- Apply programs to improve nurse's satisfaction levels and maintain positive working conditions.

#### For nursing education:

- Develop educational programs for nurses to maintain positive working environment and how to deal with negative working environment.
- Design programs for nurses to effectively maintain their resilience level.
- Apply educational awareness sessions for hospital leaders to learn how to create positive working conditions and improve resilience levels among nurses.
- Design educational programs for nurses on factors affecting their resilience and work engagement and how to improve it.

#### For further studies:

#### D- Future research

- Investigate factors affecting staff nurses work engagement on current study setting.
- Assessing factors affecting staff nurses resilience on current study setting.
- Implement the current study in different settings for generalization and dissemination of results in nursing sectors.

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