Effect of Perceived Nursing Work Environment on Nurses Job Outcomes at Primary Health Care Centers – Jeddah

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Abstract

During the new and modern era, the organizations are facing many challenge and diversity of workforces in the health care system because the nursing environment has energetic characteristics for nurses. In addition, nurses are exposed to an unfavorable environment that affects their practice. Therefore, the healthy nursing work environment is essential for increasing satisfaction of their professional nurses needs through attracting, retaining, and rendering quality of patient care in the hospitals. This study aims to investigate the perception of the nursing work environment on nurses' job outcomes at primary health care centers- Jeddah. A descriptive correlational namely cross-sectional design was employed to collect data using non-probability convenience sampling technique from a group of nurses who accept to participate in the study and working at three primary health care centers affiliated to the Ministry of National Guard in Jeddah region namely; Al-Bahra, Alwaha, and Al-Eskan. The questionnaires were administered to the nurses for data collection using socio-demographic characteristics, Revised Nurse Working Index (NWI-R), Nurses' job outcome was measured through of (a) job satisfaction, (b) intention to leave, and (c) quality of nursing care. Statistical analysis was done using SPSS 20.0. Also, data was analyzed by using descriptive statistics such as mean and standard deviation and inferential statistics such t-tests (two-tailed) and one way analysis of variance (ANOVA) and Pearson correlations were conducted to investigate the relationships of nursing work environments and the nurses job outcome. In this study the level of significant was set at 0.05.The present study finds that majority of the nurses had a highest percentage of nursing work environment dimensions. For achieving a high level of nursing work environment it is found that there is statistically significant relationship with nurses' job outcomes in term of job satisfaction. Most of the nurses were satisfied with the work and have the highest means scores in term of growth satisfaction, followed by Co-workers and supervision. Job security was reported to have lowest means scores by nurses. There was a significant relationship between socio-demographic variables with the nursing work environment and nurses' job outcomes in term of primary health care centers, educational qualification, and age group. This study recommended that Hospital administrators should advocate and support the policies and regulations that foster nurses' satisfaction by providing a strong nursing work environment and recognizing more productivity for delivering nursing care in primary health care settings

Keyword: nursing work environment, job satisfaction, intention to leave, primary health care

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1. Introduction

In the new global, the attention was increases about the significant of nursing workforce to health care delivery system in order to initiate and create the safe, and satisfy environment. In addition, the priorities of nurses ' work environment was focused on its significance through modern health care organization in improving satisfaction, and reduce intention to leave and nursing shortage. (El-Jardali et al., 2009).The work environment in primary health care should be a positive environment. Also, it should be safe, empowering, and satisfying for the nurses and medical staff in order to improve health and health care. It is important to develop a satisfactory work environment which helps and support nursing practice to increase nurses' job satisfaction and intent to stay.(Munyewende et.al 2014). Saudi Arabia is one of the most countries that has adopted and enforced the primary health care approach in the Middle East. Primary health care became a core of policy in accordance with the Alma-Ata declaration at the World Health Organization in 1978, and it means to achieve universal access to health.(Almalk et.al 2012)PHC can develop accessibility and exacerbated appropriateness to the requirements of people and populations by improving the attainment of health equity through making the cost low.(Alameddine 2017)Primary health care centers provide primary health care services in the community, providing both preventive and curative such as education, vaccination or immunization, nutrition education, medication provision, and appropriate treatment of common diseases and injuries.(Nies, M 2011) There is currently world recognition of the importance of the health force to health systems development and also the accomplishment of fine population health outcomes. (Munyewende et.al 2014,Nies 2011)However, there is a link between poor nursing work environments and poor nurse outcomes. The nurse outcomes include nursing job satisfaction and intent to stay

which are affected by the nursing work environment whether it is positive or negative. (Munyewende et.al 2014)

Nursing scientists were interested and paying attention for nursing work environment since the early1980s due to emerge the issue of nursing shortage as a national threat to the United States health system. Revised Nursing Work Index (NWI-R) was an international questionnaire applied in a variety of studies occur in different countries overall the worlds. This questionnaire was assessing the different aspects of the work environment among professional personnel and its importance of work environment characteristics. The environment in which a nurse functions including his/her autonomy, control over practice setting, organizational support, and physician relationships. The current study utilizes a group of theoretically related subscales concepts of Revised Nursing Work Index (NWI-R) that consists of autonomy which means independent decision making, control over nursing practice describe that adequate organizational support of primary health care services, nurse–physician relations refers to the cooperation and relationship between physician and nurses. Also, organizational support means that administration and management support their personnel through give them the chance for growth and development with available resources. (Aiken & Patrician 2000)

In general, job satisfaction illustrates how a feeling of an individual is with his/her job content. The most focal employees' attitude is job satisfaction and employees have views about various aspects of their job, their career and for whom they work. (Almalk et.al 2012) Job satisfaction indicates the degree of how many employees enjoy their job. It is considered an important aspect because of the impact that on staff performance and motivation. The attention on job satisfaction was increased because the need to improve the quality of care, health outcomes and the performance of the health system. The study shows the influence of the physical environment on job satisfaction. Because the environment affected whether the nurses can complete tasks and communicate easily and do their jobs efficiently. In addition, the good environment enhances the work of nurses which increase job satisfaction. (Almalk et.al 2012, Poghosyan et.al 2017). Many factors can be contributing to job satisfaction among nurses, it classified into intra-personal, inter-personal, and extra-personal. An intra-personal factor was related to characteristics of nurses as individually e.g. age, educational qualification, and years of experiences. Also, inter-personal factor was related to relationship between nurses and co-workers such as autonomy control over practice, decision making. In addition, extra-personal factor means that factor influenced by organizational policies e.g. Workload, scheduling, and organizational structure. (Saeed et.al 2014)

Intention to leave is one the issues that face nurses and has many consequences. Intention to leave means that health care providers plan to quit from the current job. Turn over intention is divided into two parts. First part is voluntary intention to leave which mean that the employees desire from them self to quit. The second part is involuntary intention to leave which mean that the organization plan to make the employee quit as a result of unsatisfied performance.(Saeed et.al 2014). There are some factors leads to intention to leave for health care providers. These factors are job satisfaction, working conditions and individual characteristics. Negative aspects of the organization or the profession can because of intention to leave. Intention to leave of nurse has negative impacts on quality of care for patients. Increased workload in nursing leads to decrease job satisfaction and productivity and stress then finally leaving the place. Also will effect on consuming resources like activities for nurse retention and program for nurse development.(Almalk et.al 2012, Alameddine, M 2017, Saeed et.al 2014).Nursing intention to leave was lead to decrease the quality of care for the patient like increase error and decrease satisfaction because there are no adequate nurses. Quality of health care is the meeting of health services to need of patients. Health primary care should have a high quality of care to meet patient needs.(Saleh et.al 2015).In Saudi Arabia, quality assurance was a central part of all services of primary care and formulated and forced by internally and externally through health care organization system and community services. In addition, the community services and activities participate as a valuable role in applying 2030 vision in the primary health care requirements as mapping road to meet new challenging in patients' needs and nursing quality given to them.(Alahmad H., & Roland M 2005).

Primary health care is a system has significant goal which provides care for all in the community and enhances growth it. (Alzaied & Alshammar 2016) Primary health care provider means any healthcare professional who sees people that have common medical and emergency problems, this person may be a physician assistant or a nurse.(Halcomb et.al 2016). A key member of the primary health care providers in the PHC is the nurse and nurses are integral to the availability of safe and are seen as a key deliverer within the agenda for strengthening PHC services. The role of nurse in PHC ;patient care like wound management and first aid and emergency management ,organizer like brokering referrals to community services and maintaining treatment room equipment and resources , problem solving building practice capacity to adapt to change , educator like students who enter the practice for clinical placement , and quality controller like infection control. (Halcomb et.al 2018)

There are some studies are conducted and discussed some aspects. One of these studies is a study established in South Africa and Jordan used to determine job satisfaction in primary health care clinic. it measures through a single item questions such as overall satisfaction with one's job or multiple item measurements relating to co-workers, work demands, job content, workload, skills and pay. In South Africa, job satisfaction differs by nursing category, age, and gender and is affected by workplace and the practice environment. (Halcomb et.al 2018) In

Jordin study, it shows a high relationship between workload, exhaustion, absenteeism, staff conflict and the job satisfaction of health care workers.(Al-Hamdan et.al 2017) Also, there is a strong association also exists between job satisfaction, work commitment, and performance. In Saudi Arabia, there is study established to examine the relationship between quality of work life and intention to leave nursing in primary health care which the result show that nurses are not satisfied with their work life and forty percent indicate that there is the intention to leave primary health care. (Almalki et.al 2012, Jahan & Al-Saigul 2017).

Job satisfaction and work environment effect nurses in primary health care and lead to finally intention to leave and decrease the quality of care. Therefore this study is significant to perceived effective work environment factors that improve nurses' recruitment, retention, and also they are essential for improving safety and quality of patents care provided in the primary health care centers. Therefore, the top authority and hospital administrators need to develop a different national nursing strategy that concentrates on improving the positive work environment and retain primary health care nurses in the governance structure of health care organizations. For this reason, this study establishes to examine the effect of perceived nursing work environment on nurses job outcome at primary health care centers – Jeddah.(Saeed et.al 2014, Al-Hamdan et.al 2017, Almalki et.al 2012)

The top authority and hospital administrators need to develop a different national nursing strategy that concentrates on improving the positive work environment and retain primary health care nurses in the governance structure of health care organizations. For that reason, this study establishes to examine the effect of perceived nursing work environment on nurses job outcome at primary health care centers – Jeddah. The primary health care center is considered significant area for all population which provides primary health care services in the community, providing both preventive and curative. The work environment is linked with nurses' job outcomes which are important to decrease nursing intention to leave. There is need for studies in Saudi Arabia to investigate the perception of nursing work environment on nurses' job outcomes at primary health care centers- Jeddah

2. Research aim
The purpose of this study is to investigate the perception of nursing work environment on nurses' job outcomes at primary health care centers- Jeddah

2.1 Specific objectives
1. Assess the perception of nursing work environment at primary health care centers- Jeddah
2. Assess the perception of nurses' job outcomes at primary health care centers- Jeddah
3. Explore a statistically significant correlation of nursing work environment on nurses' job outcomes and socio-demographic characteristics.
4. Investigate the association between nursing work environments on nurses job outcomes at primary health care centers -Jeddah

3. Research question
Is there any relationship between work environment and nurses' job outcomes at primary health care center?

4. Material and Methods
4.1 Research design
In conducting this study, a descriptive correlational namely cross-sectional design was utilized to carry out the aim of the study. This design was be used to investigate the strong relationship between key factors of nursing work environment on nurses' job outcomes.

4.2 Research setting
The study area was conducted in three primary health care centers affiliated to the Ministry of National Guard in Jeddah region namely; Al-Bahra, Alwaha, and Al-Eskan. In addition, primary Healthcare Centers were employed for giving the fundamental preventive and curative health care for the Saudi community.

4.3 Research Sampling
The study participants were working at primary health care centers affiliated to the Ministry of National Guard in Jeddah region. The target population comprised of all nursing personnel who providing preventive and therapeutic community activities among the previous study settings. The sampling technique for the current study was non-probability convenience sample. Approximately estimated number of recruited required nursing personnel in this study was 75 nursing personnel.
4.3.1 Inclusion Criteria:
All study participants who was eligible and invite to join in this study based on the following selected the inclusion criteria: They are responsible per given direct care roles and employed fulltime on the same study settings for at least one year. They all Saudi citizens or foreign nursing personnel

4.3.2 Exclusion Criteria:

While the exclusion criteria for the study participants who have less than 6 month and their absence due to sick and maternity leave

4.4 Research tools

The collection of the data for the current study was conducted using the following three parts:

4.4.1 Part 1: Socio-demographic data including gender, age, marital status, years of experience, educational levels, nationality, and position.

4.4.2 Part 2: Revised Nursing Work Index (NWI-R) **.**

Revised Nursing Work Index (NWI-R) was formulated by Aiken and Patrician (2000) as the standardized widespread questionnaire design to measure professional features of nursing work environment by applying nursing actions among primary health care nurses.(Aiken and Patrician 2000) The short initial version of the questionnaire has 25items which classified into 4 work environment features namely: "Autonomy " (Five items), Control over work envioment(sevenitems)","Nurse-physicianrelationship"(Threeitems),and "Organizational support (Ten items), Requests from all participants to grade the questionnaire items using Four-point Likert scale with variety of options range from strongly disagree (1), to strongly agree (4). In addition, scores for subscales items were summed and divided by the number of items. The average mean scores for each subscale were computed to obtain the total mean scores for the Revised Nursing Work Index (NWI-R). The analysis of the questionnaire indicates that the highest values of the Nursing Work Index denote more than 2.5 mean that nurses evaluate their nursing job environment as favorable at primary health care centers. Regarding the scores If the score was lower than 2.5, it was classified as one that nurses disagreed with their work environment (Bogaert, Clarke, Vermeyen, Meulemans, & Heying,2009).Revised Nursing Work Index (NWI-R)was considered valid and reliable the Cronbach's' alpha coefficient was 0.085 - 0.960

4.4.3 Part3: Nurses' job outcome was measured using nurses-reports of (a) job satisfaction, (b) intention to leave, and (c) quality of nursing care. (a) Job satisfaction It was developed by Robbins (2009)and was measured the aspects of nurses satisfaction in their jobs through fourteen statements in five factors, including: Growth satisfaction (4 items), Satisfaction with job security (2 items), Satisfaction with Compensation (pay) (2 items), Satisfaction with Co-Workers (3 items), Satisfaction with Supervision (3 items).The response to each statement in this section was assessed by using a Five-point Likert scale ranging from 1 (strongly dissatisfied) to 5 (strongly satisfied). The total score was calculated by averaging the scores on the above subscales. (Robbins 2009). **(b) Nurses intention to leave** has been commonly used in nursing literature to assess nurses' intention to leave their current job by Aiken and Patrician (2000).The questionnaire measures through asking nurses to report whether they would leave their current job in the hospital using a Seven -items. The questionnaire was answered on a 5-point Likert scale (1= very unlikely to 5= very likely). (Aiken & Patrician 2000) **(c) Quality of nursing care**, According to Sloane et.al (2002), they developed questionnaire and nurses were asked to rate the nursing quality of care they delivered to patients on their units. The questionnaire consists of Seven items and rated on a 5-point Likert scale (1= poor, to 5= excellent). Scores were then dichotomized as (0) very poor to good versus (1) very good or excellent.(Stone et.al 2007). The reliability had the Cronbach's' alpha coefficient range from 0.80 – 0.90. (Aiken & Patrician 2000, Robbins 2009, Stone et.al 2007)

4.5 Methods of data collection

4.5.1 Reliability and Validity

For the content validity of the study questionnaires, three experts' panel from the College of Nursing- Jeddah, King Saud Bin Abdul-Aziz University for Health Science was to evaluate and provides their opinions for it. A pilot study was carried out on 10 (10%) of health care providers and omitting them during the data collection, in order to ensure applicability, and clarity of questionnaires and estimating time spending for fulfilling the questionnaires. Cronbach's' alpha coefficient test was computed to calculating the reliability level of the study questionnaires. Revised Nursing Work Index (NWI-R)= 0.833Nurses' job outcome was be measured using nurses-reports of (a) job satisfaction = 0.860 (b) intention to leave = 0.750 and (c) quality of nursing care = 0.828.

4.5.2 Ethical Consideration

The PI assure that all data both hard and soft copies was stored within MNGHA premises and access by the research team only". For obtaining data collection approval, the research proposal was delivered to the College of Nursing research committee and the King Abdullah International Medical Research Center (KAIMRC). Official permission for this study was taken from the director of primary health care services to complete the data collection. At the time of data collection, the researcher team member has invited the study participants who meet the study inclusion criteria and willing to voluntarily participate in the study research. Before answering the study questionnaires, the informed consent was distributed for each participant to sign with the clear explanation the aim of the study and inform them that their responses and personal information was used without the name and confidential. Also, they guaranteed to leave the study at any time without any effect. The participants were

complete study questionnaires in approximately 15-25 minutes at their work covered a period of two months.

4.5.3 Statistical analysis

The data collected was coded and prepared electronically analysis using SPSS version 22. The descriptive and inferential statistical analysis for all study variables was carried out as follow: The demographic characteristics of the participants were analyzed by frequency and percentage. Descriptive analysis statistics for the study variables "nursing work environment" and "nurses job outcomes" participants responses were presented including mean and standard deviation if data were parametric (i.e., normally distributed), if not median and inter-quartile range was utilize. The inferential statistics analysis was selected to explore the group differences and relationship between "nursing work environment" and "nurses job outcomes" was calculated using independent sample t-test and Pearson correlation coefficient. The level of study significant was located at $p \leq 0.05$

5. Results

Table 1: Socio-demographic characteristics of the staff nurses study subjects

Socio-demographic characteristics	Staff nurses study subjects (n = 75)	
	No	%
Primary health care centers		
Iskan	23	30.7
Al-Waha	21	28.0
Bahrah	31	41.3
Educational qualification		
Diploma	4	5.3
B.Sc.N	71	94.7
Marital status		
Single	17	22.7
Married	58	77.3
Gender		
Male	23	30.7
Female	52	69.3
Age		
25 y > 35 y	46	61.3
35 y>45 y	24	32.0
45 y>55 y	5	6.7
Years of experiences		
≥ 5	31	41.3
5 y > 10 y	19	25.3
10 y> 15 y	22	29.3
15 y>20 y	3	4.0
Nationality		
Saudis	53	70.7
Non-Saudis	22	29.3

A total of 75 study subjects filled the study questionnaires and they were giving a response rate of 100%. Table 1 shows the socio-demographic characteristics of the staff nurses subjects. It described that the study subjects' respondents encompass of 69.3% were female, three-quarter of them was married (77.3%), and they have a Saudi nationality (70.7%). The Majority of the study subjects holding B.Sc.N degree (94.7%), the ages of the respondents ranged from 25 to less than 35 years old (61.3%) with less than 5 years' experience (41.3%) as well as working at Bahrah primary center (41.3%)

Table 2: Perception of nursing work environment dimensions among staff nurses at primary health care centers Jeddah

Nursing work environment dimensions	Revised Nursing Work Index(NWI-R)						t-Test	P
	Low (n =9)	High (n =66)	Total (n =75)					
	X±S.D	X±S.D	Min	Max	X±SD			
Autonomy	2.47±0.51	3.01±0.44	1.60	3.60	2.82±0.50		-3.418**	0.001
Control over work	2.27±0.32	2.89±0.47	1.86	4.00	2.74±0.53		-3.810**	0.000
Nurses-Physicians relationships	2.37±0.39	3.27±0.52	2.00	4.00	3.08±0.59		-5.004**	0.000
Organizational support	2.53±0.34	2.96±0.41	1.70	4.00	2.85±0.51		-2.998*	0.004
Overall Revised Nursing Work Index (NWI-R).	9.64±0.72 (12%)	12.12±1.22 (88%)	1.94	3.81	2.96±0.35		-5.960**	0.000

* p ≤ 0.05 at 5% level denotes a significant difference .   ** p ≤ 0.01 at 5% level denotes a significant difference .

Table 2: describe the perception of nursing work environment dimensions among staff nurses at primary health care centers Jeddah. It was a remark that the overall of the Revised Nursing Work Index (NWI-R) scores ranged from 1.94 to 3.81 with mean scores 2.96±0.35. The majority of staff nurses working at primary health care centers perceived their work environment as a favorable environment (88%). The highest mean scores was identified for nurses-physicians relationships (3.27±0.52) followed by autonomy dimensions (3.01±0.44) among staff nurses, while the lowest means score was identified for control over work dimension (2.27±0.32). This table indicates that there is a statistically significant association was found between high and low Revised Nursing Work Index (NWI-R) with all nursing work environment dimensions among staff nurses at primary health care centers. (t value = -3.418, -3.810,-5.004, -5.960 p < 0.01, -2.998 ≤ 0.05 respectively

Table3: perception of nursing work environment dimensions according to their primary health care centers

Nursing work environment dimensions	Primary health care centers						F-Test	P
	Iskan(n = 23)		Al-Waha (n =21)		Bahrah (n =31)			
	X±SD	Rank order	X±SD	Rank order	X±SD	Rank order		
Autonomy	2.79±0.53	5	3.01±0.51	2	3.07±0.39	2	1.685	0.193
Control over work	2.88±0.43	3	2.76±0.61	5	2.83±0.47	5	0.196	0.823
Nurses-Physicians relationships	3.12±0.51	1	3.18±0.69	1	3.18±0.57	1	0.094	0.910
Organizational support	2.85±0.42	4	2.99±0.52	3	2.90±0.36	4	0.665	0.517
Overall Revised Nursing Work Index (NWI-R)	2.90±0.34	2	2.98±0.47	4	2.98±0.28	3	0.411	0.665

Table 3: identify the perception of staff nurses 'nursing work environment dimensions according to their primary health care centers. This table illustrates that there is no statistically significant relationship was located between staff nurses perception of nursing work environment dimensions according to their primary health care centers. Also, it was observed that staff nurses perceived the highest means scores for nurses-physicians relationships dimension (3.12±0.51, 3.18±0.69, and 3.18±0.57 respectively) for their primary health care centers. On the other hand, they perceived the lowest means scores for autonomy dimension (2.79±0.53) for Iskan centers as compared to control over work dimension (2.76±0.61, 2.83±0.47) for both of Al-Waha and Bahrah centers

Table 4: perception of nurses' job outcomes at primary health care centers Jeddah

Nurses' job outcomes	Revised Nursing Work Index(NWI-R)						t-Test	P
	Low (n =9)	High (n =66)	Total (n =75)					
	X±S.D	X±S.D	Min	Max	X±SD			
Growth satisfaction	3.11±0.70	3.47±0.73	2.00	5.00	3.42±0.73		-1.370	0.175
Job security	2.78±1.15	3.03±0.86	1.00	5.00	3.00±0.89		-0.794	0.430
Job compensation	2.61±0.74	3.29±0.83	1.00	5.00	3.21±0.85		-2.315*	0.023
Co-workers	2.70±0.68	3.44±0.63	2.00	5.00	3.35±0.67		-3.284*	0.002
Supervision	3.01±0.20	3.39±0.79	1.67	5.00	3.35±0.75		-1.330	0.188
Overall job satisfaction	2.85±0.42	3.32±0.55	2.10	4.95	3.27±0.56		-2.490*	0.002
Intention to leave	2.86±0.41	2.99±0.59	1.57	4.14	2.97±0.57		-0.628	0.532
Quality of nursing care	2.89±0.46	3.00±0.57	2.00	5.00	2.99±0.56		-0.555	0.580

* p ≤ 0.05 at 5% level denotes a significant difference .** p ≤ 0.01 at 5% level denotes a significant difference .

Regarding the perception of nurses' job outcomes dimensions at primary health care centers Jeddah in table 4. The table highlights that statistically significant associations were found for perceptions of nurses' job outcomes dimensions at primary health care centers Jeddah in term of job compensation, Co-workers, overall job satisfaction (t value =-2.315, -3.284, -2.490 ≤ 0.05 respectively. In addition, the study participants recorded the highest mean score for growth satisfaction dimension (3.47±0.73) followed by Co-workers dimension (3.44±0.63). While they perceived the lowest means score for Job compensation dimension (2.61±0.74).

Table 5: perception of nurses' job outcomes according to their primary health care centers

Nurses' job outcomes	Primary health care centers						F-Test	P
	Iskan(n = 23)		Al-Waha (n =21)		Bahrah (n =31)			
	X±SD	Rank order	X±SD	Rank order	X±SD	Rank order		
Growth satisfaction	3.42±0.91	5	3.51±0.75	1	3.36±0.58	1	0.254	0.777
Job security	2.98±1.09	8	3.12±0.89	5	2.94±0.74	6	0.269	0.765
Job compensation	3.46±0.94	3	3.05±0.69	6	3.13±0.86	4	1.524	0.225
Co-workers	3.65±0.73	2	3.30±0.67	3	3.16±0.56	2	3.896*	0.025
Supervision	3.68±0.76	1	3.32±0.72	2	3.12±0.69	5	4.070*	0.021
Overall job satisfaction	3.44±0.58	4	3.26±0.60	4	3.14±0.49	3	1.944	0.151
Intention to leave	3.14±0.66	7	2.85±0.60	8	2.93±0.45	7	1.562	0.217
Quality of nursing care	3.29±0.66	6	2.88±0.52	7	2.83±0.41	8	5.574*	0.006

* p ≤ 0.05 at 5% level denotes a significant difference .** p ≤ 0.01 at 5% level denotes a significant difference .

Table 5 explains the perception of nurses' job outcomes according to their primary health care centers. Regarding primary health care centers, statistically, association difference was documented with mean scores of nurses' job outcomes in term of Co-workers, supervision, and quality of nursing care dimensions (F-Value 3.896, 4.070, and 5.574 p<0.05). This association was most noticeable that the highest means score was documented for supervision dimension (3.68±0.76) for Iskan centers as compared to growth satisfaction dimension (3.51±0.75, 3.36±0.58) for both Al-Waha and Bahrah centers. While, they had a close behind lower mean scores for job security dimension (2.98±1.09) for Iskan centers, intention to leave dimension (2.85±0.60) for Al-Waha centers, as well as the quality of nursing care (2.83±0.41) for Bahrah centers respectively

Table 6: Relationship between staff nurses perception of nursing work environment dimensions and socio-demographic characteristics at primary health care centers Jeddah

Socio-demographic characteristics	Nursing work environment dimensions				
	Autonomy	Control over work	Nurses-Physicians relationships	Organizational support	Overall Revised Nursing Work Index (NWI-R)
	X±SD	X±SD	X±SD	X±SD	X±SD
Marital status					
Single	2.86±0.46	2.92±0.54	3.16±0.55	2.84±0.48	2.94±0.38
Married	2.97±0.48	2.78±0.48	3.16±0.59	2.93±0.41	2.96±0.35
t – test	-0.812-	0.991	-0.025-	-0.779	-0.170-
P –Value	0.419	0.325	0.980	0.439	0.865
Nationality					
Saudis	2.91±0.46	2.74±0.47	3.17±0.61	2.88±0.44	2.92±0.36
Non-Saudis	3.01±0.51	2.97±0.53	3.14±0.52	3.00±0.40	3.03±0.35
t – test	-0.794-	-1.865-	0.226	-1.157-	-1.161-
P –Value	0.430	0.066	0.822	0.251	0.249
Educational qualification					
Diploma	2.65±0.66	2.75±0.30	2.50±0.33	2.73±0.21	2.66±0.35
B.Sc.N	2.96±0.46	2.82±0.50	3.20±0.57	2.92±0.43	2.97±0.35
t – test	-1.266-	-0.254	-2.410*	-0.903-	-4.428**
P –Value	0.210	0.800	0.018	0.370	0.000
Age group					
25 y > 35 y	2.90±0.50	2.77±0.47	3.19±0.59	2.91±0.44	2.94±0.37
35 y>45 y	2.95±0.44	2.83±0.51	3.05±0.57	2.87±0.40	2.93±0.31
45 y>55 y	3.32±0.23	3.06±0.69	3.40±0.55	3.12±0.38	3.22±0.36
F – test	1.846	0.773	0.867	0.729	1.569
P –Value	0.165	0.465	0.425	0.486	0.215

Socio-demographic characteristics	Nursing work environment dimensions				
	Autonomy	Control over work	Nurses-Physicians relationships	Organizational support	Overall Revised Nursing Work Index (NWI-R)
	X±SD	X±SD	X±SD	X±SD	X±SD
Years of experiences					
≥ 5	2.92±0.48	2.79±0.50	3.13±0.59	2.89±0.45	2.93±0.37
5 y > 10 y	3.03±0.47	2.73±0.50	3.28±0.67	3.03±0.37	3.02±0.31
10 y> 15 y	2.87±0.45	2.79±0.43	3.09±0.50	2.81±0.39	2.89±0.33
15 y>20 y	3.07±0.76	3.67±0.30	3.22±0.69	3.10±0.721	3.26±0.57
F – test	0.457	3.519*	0.408	1.121	1.236
P –Value	0.713	0.020	0.748	0.346	0.303

* p ≤ 0.05 at 5% level denotes a significant difference .** p ≤ 0.01 at 5% level denotes a significant difference .

Table 6 identifies the relationship between staff nurses perception of nursing work environment dimensions and socio-demographic characteristics at primary health care centers Jeddah. The Table presents there are statistically significant association were found between overall Revised Nursing Work Index (NWI-R) and the demographic characteristics except for educational qualification (F value = - 4.428, p<0.01). In addition, there are statistically significant associations between nurses-physicians relationships dimensions with educational qualification (t value = 2.410, p<0.05) as well as control over work dimension with years of experiences (F value = - 3.519, p<0.05). Also, the table was observed that the highest means scores of study participants for physicians' relationships dimension who were married3.16±0.59, Saudis nationality3.17±0.61, holding B.Sc.N degree3.20±0.57, had the aging between 45 years old to less than 55years-old 3.40±0.55as well as they have work experience 5 years to less than 10 years3.28±0.67.

Table 7: Relationship between nurses job outcomes and socio-demographic characteristics at primary health care centers Jeddah according to their primary health care centers

Socio-demographic characteristics	Nurses job outcomes							
	Growth satisfaction	Job security	Job compensation	Co-workers	Supervision	Overall job satisfaction	Intention to leave	Quality of nursing care
	X±SD	X±SD	X±SD	X±SD	X±SD	X±SD	X±SD	X±SD
Marital status								
Single	3.52±0.73	3.21±0.90	3.59±0.69	3.47±0.69	3.29±0.85	3.42±0.59	3.05±0.66	3.08±0.79
Married	3.40±0.74	2.94±0.89	3.10±0.86	3.32±0.67	3.36±0.72	3.22±0.54	2.95±0.54	2.96±0.48
t – test	0.582	1.082	2.165*	0.833	-0.327-	1.266	0.663	0.813
P –Value	0.562	0.283	0.034	0.407	0.744	0.209	0.509	0.419
Nationality								
Saudis	3.40±0.76	3.02±0.89	3.18±0.84	3.35±0.67	3.34±0.72	3.26±0.54	3.00±0.55	2.95±0.56
Non-Saudis	3.48±0.67	2.96±0.91	3.27±0.87	3.36±0.69	3.36±0.84	3.29±0.61	2.91±0.64	3.07±0.56
t – test	-0.408-	0.282	-0.433-	-0.103-	-0.126-	-0.208-	0.589	-0.842-
P –Value	0.684	0.779	0.666	0.918	0.900	0.836	0.557	0.402
Educational qualification								
Diploma	3.63±0.95	3.00±0.71	2.88±1.03	3.33±0.67	3.58±0.96	3.28±0.66	3.43±0.29	3.00±0.86
B.Sc.N	3.41±0.73	3.00±0.91	3.23±0.84	3.35±0.68	3.33±0.74	3.27±0.55	2.94±0.57	2.99±0.55
t – test	0.563	0.000	-0.803-	-0.054	0.648	0.065	3.066*	0.049
P –Value	0.575	1.000	0.424	0.957	0.519	0.948	0.032	0.961
Age group								
25 y > 35 y	3.36±0.74	3.00±0.88	3.26±0.74	3.38±0.65	3.28±0.73	3.26±0.51	2.96±0.54	2.97±0.58
35 y>45 y	3.46±0.73	2.83±0.88	3.00±1.01	3.17±0.65	3.35±0.76	3.16±0.56	3.06±0.58	2.95±0.56
45 y>55 y	3.80±0.69	3.80±0.84	3.70±0.84	4.00±0.71	4.00±0.71	3.86±0.69	2.60±0.72	3.34±0.34
F – test	0.834	2.525	1.689	3.501*	2.182	3.532*	1.368	1.090
P –Value	0.438	0.087	0.192	0.035	0.120	0.034	0.261	0.342
Years of experiences								
≥ 5	3.29±0.76	3.05±0.90	3.40±0.65	3.46±0.63	3.24±0.73	3.29±0.51	2.89±0.63	2.96±0.66
5 y > 10 y	3.40±0.72	2.95±0.80	2.90±1.07	3.18±0.61	3.25±0.74	3.13±0.57	2.93±0.47	2.87±0.32

10 y> 15 y	3.61±0.59	2.93±0.82	3.00±0.64	3.23±0.69	3.49±0.75	3.25±0.51	3.17±0.50	3.10±0.57
15 y>20 y	3.58±1.42	3.33±2.08	4.67±0.58	4.22±0.69	4.11±0.84	3.98±0.98	2.57±0.88	3.14±0.76
F – test	0.888	0.227	5.758**	2.853*	1.678	2.164	1.649	0.709
P –Value	0.452	0.877	0.001	0.043	0.179	0.100	0.186	0.550

* p ≤ 0.05 at 5% level denotes a significant difference .** p ≤ 0.01 at 5% level denotes a significant difference .

Relationship between perceptions of nurses' job outcomes dimensions and their socio-demographic characteristics at primary health care centers Jeddah was shown in table 7. This table indicated that a statistically significant association between the selected socio-demographic characteristics and overall job satisfaction demonstrated with age group (t value = 3.532, p<0.05). Also, educational qualification had a significant relationship with intention to leave (t value = 3.066, p<0.05). Job compensation dimension was significantly associated with two selected of socio-demographic characteristics namely, marital status (t value = 2.165, p<0.05) and years of experiences (F value = 5.758, p<0.01). Finally, the table results revealed that Co-workers dimension had a significant association with both of age group (F value = 3.501, p<0.05) and years of experiences (F value = 2.853, p<0.05).

Table 8: Correlation coefficient between mean scores of nursing work environments on nurses job outcomes at primary health care centers -Jeddah

Nursing work environments dimensions		Growth satisfaction	Job security	Job Compensation	Co-Workers	Supervision	Overall Job satisfaction	intention to leave	Quality of nursing care
		Nurses job outcomes dimensions							
Autonomy	r	0.383**	0.236*	0.020	0.128	0.355**	0.310**	-0.008-	0.326**
	P	0.001	0.042	0.862	0.275	0.002	0.007	0.945	0.004
Control over work	r	0.127	0.063	0.371**	0.412**	0.120	0.299**	0.094	-0.099-
	P	0.276	0.589	0.001	0.000	0.305	0.009	0.423	0.399
Nurses-physician relationships	r	0.376**	0.313**	0.307**	0.362**	0.240*	0.446**	-0.150-	0.104
	P	0.001	0.006	0.007	0.001	0.038	0.000	0.198	0.377
Organizational support	r	0.352**	0.199	0.094	0.296**	0.206	0.313**	-0.112-	0.076
	P	0.002	0.086	0.421	0.010	0.076	0.006	0.337	0.517
Overall Revised Nursing Work Index (NWI-R)	r	0.432**	0.289*	0.290*	0.423**	0.321**	0.485**	-0.065-	0.140
	P	0.000	0.012	0.012	0.000	0.005	0.000	0.578	0.231

* p ≤ 0.05 at 5% level denotes a significant difference .** p ≤ 0.01 at 5% level denotes a significant difference .

Table 8: clarify the correlation coefficient between mean scores of nursing work environments on nurses' job outcomes at primary health care centers –Jeddah. Overall, in this table, it was indicated that a moderate positive correlation coefficient difference was documented between the mean score of overall Revised Nursing Work Index (NWI-R) and overall job satisfaction (r = 0.485 p <0.01). Noticeably that, no statistically correlation coefficient significant difference was found between overall Revised Nursing Work Index (NWI-R) and intention to leave dimension (r =- 0.065 p <0.578) and quality of nursing care dimension (r = 0.140 p <0.231). Whereas only a statistically correlation coefficient significant difference between autonomy dimension with the quality of nursing care dimension (r = 0.326 p <0.01). The correlation of other dimensions was ranged between weak to moderate correlation.

6. Discussion

Creating and maintaining a healthy work environment for nurses who work in primary health care settings is essential for develop clear job satisfaction, improve productivity and quality of nursing care outcomes for their consumers of health care services as well as reduce intention to leave. (Irinoye and Oladoyin (2013).

The present study reveals that the majority of nurses (88%) who participate in this study perceived their work environment as a favorable attribute of professional practice. The scores were verifying for study participants in evaluating nursing practice environment characteristics were above 2.5 for overall NWI-R's. This finding is in accordance with results of Panunto et.al (2013). In the same line with the previous results, it was identified that the highest nurses-physicians relationships dimension perceived as the highest means scores, while control over work dimension was as lowest means scores among the study participants. For nurses-physicians relationships dimension, this result may be attributed to the quality of health services in the health care system dependent on a strong relationship between physicians and nurses because they work together as a team and in harmony to achieve their goals and actions of services. This finding was supported by Lemes et.al (2010) who reported that good communication and effective multidisciplinary teamwork are the essential characteristics for physicians and nurses

relationships. Regarding control over the work environment have the lowest mean scores among study participants this might be related to the fact that rules and legislation in force were very strict as well as the difficult application of policies and procedures, they have no support form organization especially of managers. This finding contrast the results of Panunto and Guirardello (2013), indicated that well-structured organization will support the nurses to work well through work independently to perform their activities according to well-defined rules and regulation.

Additionally, the current findings revealed that perceptions of nurses job outcomes have a significant association in term of job compensation, Co-workers, overall job satisfaction. This could be explained in the light of the fact that the degree of overall job satisfactions may be important for nurses in order to use opportunities of personal accomplishment provided by the job when nurses satisfied with job compensation and Co-workers, they would react more positively to challenge and enrichment of their work. Moreover, they identified that nurses with high growth needs are most likely to respond positively to increase satisfaction in their job than do those with low growth needs. In this respect, Bassy M (2001) identified that the nurses when satisfied with pay, job security, co-workers, and supervision, would react more positively to challenges and enrichment of their work. According to Mcdermott et.al (1996), they reported that nurses, who have various opportunities for growth and development in their work, are more likely to have high aspirations and more committed to the organization.

Concerning the relationship between socio-demographic characteristics and perception of nursing work environment dimensions and nurses job outcomes among study participants. This finding proved that there was found a statistically significant difference among study participants regarding their perception for educational qualification with Overall Revised Nursing Work Index (NWI-R), intention to leave and age group and overall job satisfaction. This finding was remarkably identified from Fang Y (2001) and Larrabee et.al (2003), they indicated that significant differences was found between intention to leave and educational levels among different nurses. One possible explanation may be due to BScN degree were more likely to indicate to intention to leave compared to diploma degree because they have any recognition about their professional education and they cannot apply their knowledge and skills that negatively affect their commitment to the organization as well as force them to leave their job. Kudo et.al (2006).With respect to age groups, the 45 years old to less than 55 years old had a great effect on job satisfaction. This could be attributed to the respond of the older nurses have a greater level of job satisfaction due to increase job security, loyalty and commitment to their organization. Also, they have different benefits for their children e.g. medical insurance coverage, and day care for children. This result is congruent with Linz (2003) who reported that after marriage, the older nurses have extra salary because they have more social obligation and responsibilities

The nursing work practice environment was assessed using the Revised Nursing Work Index (NWI-R)'s subscales to help nurses in evaluating their professional practice of work environment as favorable at primary health care centers. Of great concern, the findings of the present study revealed that there was a moderate positive correlation difference between means scores of nurses' perceptions for overall Revised Nursing Work Index (NWI-R) and overall job satisfaction. Also, this result is similar to the finding reported by O'Brien–Pallas & Doran (2010). They revealed that there was a strong significant positive correlation between overall work environment and the job satisfaction of nurses. This could be attributed to the respond of the nurses were satisfied and had a positive view of their work environment as favored because they tend to maintain a good relationship with coworkers, growth satisfaction and job compensation. Moreover, it may be due to the fact that when nurses have different opportunities for growth and development in their work they are generally satisfied and more committed to the organization. Moceri JT (2014)

With some specification with the present study indicated that only a statistically correlation significant difference between autonomy dimension with the quality of nursing care dimension. This result was expected and could be attributed to the fact that occurrence of autonomy in the nurses work environment who work at primary health care centers was essential for them in maintaining their specialized professional nurses through increase their abilities to have a right to make one's own decisions. Also, nurses should have high great of autonomy in which help them to take free actions and decisions based on their technical and scientific knowledge, professional responsibility as well as clinical skills in applying the safe and high quality of nursing care for different types of patients. In accordance with this finding, Iliopoulou, and While (2010) and Kutney-Lee et.al (2012) concluded that top authority needs to initiate the different approaches put into practice as significant factors to improve positive working environment and autonomy dimension with enhance the high quality of nursing care.

7. Conclusion

This study has concluded that predictable of the nature of the Nursing work environment dimensions as a significant aspects and their contributions for job satisfaction among nurses who working at primary health care centers. Data from the current study revealed that the perception of the nursing work environment was favorable among the majority of nurses working at primary health centers – Jeddah. Also, there is a positive correlation coefficient relationship between nursing working environment and nurses' job outcomes for job satisfaction and except for intention to leave and quality of nursing care. Moreover, the autonomy dimension was found to be

predictive only for the quality of the nursing care dimension. In analyzing the dimensions of nursing work environment, the highest mean score was seen in nurses-physician relationship, followed by organizational support and autonomy dimensions and the least mean score in control over work dimension. Findings show that socio-demographic characteristics were significantly associated with the nursing work environment and nurses' job outcome dimensions in term of the nursing work environment and intention to leave with educational qualification, job satisfaction with age group as well as the quality of nursing care with primary health care centers.

8. Recommendation
In Saudi Arabia, the nursing leaders at primary health care centers need an extraordinary concentration for realizing the healthy nursing work environment for maximizing the level of job satisfaction and reducing intention to leave and contributing the better delivery of the nursing care quality.

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11. Conflicts Of Interest Disclosure

In the current study, the researchers have no declared of any conflict of interest.