

## Nephrology Nurses' Job Satisfaction and intention to stay in kidney Hemodialysis unit at prince Abdel Rahman Al Sidiri hospital, Al Jouf.

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**Abstract:** While the nephrology nursing shortage persists despite the continued growth of the population of patients with stage 5 chronic kidney diseases, In kidney dialysis units, the nurses may be the most undervalued employees, although they are the ones who take care of patients and our loved ones in times of sickness. They are required to take up multiple responsibilities at their workplace. Nurses' job satisfaction, have great impact on the organizational success. Knowing parts of job dissatisfaction among nephrology nurses is important in forming strategies for retaining them in hemodialysis units. Therefore, this study aimed at assessing the level of job satisfaction among nephrology nurses. A descriptive design was used. Convenient sample of all nephrology nurses (25 nurses) working in dialysis unit in Al- Sadiri hospital were interviewed using demographic data questionnaire and McCLOSKEY/MUELLER SATISFACTION SCALE. According to scores of satisfaction scale, the study results indicated that nurses were neither satisfied nor dissatisfied, the factors showing the higher satisfaction scores were salary, recognition of work from peers and amount of responsibility the scores with the least satisfaction were increased work load, child care facilities, opportunities for social contact and factors related to career advancement. 44 % of nurses considered work overload as the primary reason for leaving the position, 48 % of nurses described the overall quality of care as good and 40% of nurses as excellent care. Nephrology nurses indicated that quality patient care is a priority. The study recommendations are directed to improve nurses' satisfaction and, thus, the quality of care provided in hemodialysis units. Nurses' job satisfaction may be improved if these dissatisfaction factors to be considered, such as increased staffing, availability of child care facilities, increased opportunities for social contacts and encouragement of career advancement.

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**.Key Words:** Job satisfaction, Nephrology nurses, hemodialysis unit

### 1.Introduction

In a changing healthcare environment, with increasing emphasis on cost containment and financial responsibility, recruitment and retaining of qualified nursing staff is a real challenge to hospitals<sup>(1)</sup>.

Nurses, as the largest group of professionals, play an important role in determining the quality and cost of healthcare. Issues such as nurses job satisfaction of paramount importance for administrators and managers in health organizations due to the crucial role they play in their organizations' performance. Nurses' job satisfaction is found to influence hospital performance and productivity<sup>(2,3)</sup>.

In order to minimize costs and improve performance, healthcare organizations should focus on creating an environment that improves nurses job Satisfaction and retains productive and experienced nurses<sup>(1,4)</sup>.

Job satisfaction is a complex phenomenon and is thought to be the best predictor of nurses' job intention and commitment to stay. Based on the nurses' perception of their job satisfaction, job intention can serve as an indicator of retention, resignation, and turnover<sup>(2,5)</sup>.

Despite the shortage of nurses in nephrology settings, it is anticipated that the demand for nursing care will increase as the population of patients with stage 5 chronic kidney disease (CKD) who require dialysis continues to grow at an annual rate of approximately 3%<sup>(6)</sup>.

Dialysis as a specialty has a limited number of skilled nephrology nurses available to fill staffing needs. The marketplace for these skilled workers lacks elasticity, creating a significant problem related to retention and recruitment. Stress and burnout caused by many factors make retention difficult<sup>(6,7)</sup>.

In kidney dialysis units, the nurses maybe the most undervalued employees, although they are the ones who take care of patients and our loved ones in times of sickness. They are required to take up multiple responsibilities at their workplace<sup>(8,9)</sup>.

Research has shown that job satisfaction or dissatisfaction leads to a number of consequences. It was revealed by many studies that satisfaction leads to more productivity, high quality of care and intent to remain in the organization<sup>(6,7)</sup>. On the other hand, job dissatisfaction was found to increase absenteeism, turnover, high stress, and grievances<sup>(7,8)</sup>.

Job stress and burnout is a growing occupational health problem<sup>(10)</sup>. Haemodialysis nursing is characterized by frequent, ongoing contact with patients who have complex care requirements due to chronic kidney disease and who often have multiple concurrent illnesses; this contact is often over a number of years, occasionally decades<sup>(11)</sup>. Sources of satisfaction and stress can result from these unique characteristics. Identifying factors that contribute to job satisfaction, stress and burnout can improve retention of highly skilled and specialized haemodialysis nurses<sup>(8,11)</sup>.

Job satisfaction has been defined as the positive feeling or attitude about various aspects or facets of the job<sup>(12)</sup>. Higher levels of nurse job satisfaction have been positively linked to improved quality of care, patient outcomes and retention of staff<sup>(13)</sup>. Job stress, on the other hand is the divergence that exists between role expectations and what is being accomplished in that role; excessive chronic job stress has also been linked to burnout<sup>(14, 15)</sup>.

There is a growing body of research examining job satisfaction, stress and burnout amongst renal healthcare professionals. The stress of caring for people receiving haemodialysis has been long recognized as being demanding and stressful for both nursing and medical staff. Stress caused by prolonged and intense contact between the nurse and the patient makes HD nursing unique to many other branches of nursing<sup>(16)</sup>.

Nurses' job satisfaction, have great impact on the organizational success. Knowing parts of job dissatisfaction among nephrology nurses is important in forming strategies for retaining them in hemodialysis units. Therefore, this study aimed at assessing the level of job satisfaction among hemodialysis nurses in Al- Sadiri hospital

## 2. Material And Methods

### I- Material

#### Study Design:

The research design of this study is an descriptive type of research.

#### Setting:

This study was conducted at EL- Sidiri Hospital in Sakaka, Al jouf, Saudi Arabia.

#### Subjects:

The subjects of this study includes all nurses working in dialysis unit (**25 nurses** )

#### Tools

Tool I: Demographic data questionnaire

The questionnaire had 29 questions related to basic demographic information including age, gender, educational preparation, and employment characteristics. There were 3 items related to the quality of care, and 1 open-ended write-in question that provided an opportunity for nephrology nurses to

give their opinion of their work environment and the quality of patient care given in chronic hemodialysis facilities. Intent to stay-intent to leave the job was measured by 4 survey questions. The questions were developed to capture (a) multiple selection question for nurses' intentions leave their current position within a given timeframe (b) write-in space for primary reason for leaving current position c) multiple selection question for intent to change or leave their current position, and d) write-in space for intent to leaving nursing.

#### Tool II:

### McCLOSKEY/MUELLER SATISFACTION SCALE (MMSS)<sup>(17)</sup>

This questionnaire is a 31-item self-report questionnaire using a 5-point Likert scale ranging from very satisfied to very dissatisfied. This scale captures eight types of satisfaction: satisfaction with extrinsic rewards, scheduling, family/work balance, co-workers, interaction, professional opportunities, praise/recognition, and control/responsibility.

#### Scoring of the MMSS

Each item is scored from 1 to 5 with the 5 indicating the highest level of satisfaction.

## II-Methods

- Permission to conduct the study was taken from the hospital administrator after explanation of the purpose of the study.
- All nurses were interviewed using the questionnaires by the researcher after being filled in, making sure that all questions were answered. Otherwise, the sheet was turned back to be completed.
- Data collection took place between 3- October 2012 to 10- January 2013.

### Statistical analysis

After data collection, it was coded and transformed into a specially designed format so as to be suitable for computer feeding. Following data entry, checking and verification processes were carried out to avoid errors during data entry. The statistical package for social sciences (SPSS) version 17 for windows was used for data analysis.

## 3. Results

### 1- Demographic Data

This section describes the characteristics of the participants in this study. The demographic data for this study reveal that all nurses were female and Saudi, (60%) of nurses were single, (76%) of nurses age was between 20-25 Years, (40%) of nurses graduate from month to 1 year and (52%) of nurses had year experience from month to 1 year. Nurses reported (48.0%) had bachelor's degrees, (4.0%) associate degrees, and (48.0%) had diplomas, 88.0 of nurses enrolled in in – service training program, 40.0

% of nurses had certified nephrology RN and 88.0 % of nurses trained in Saudi Arabia.

Table 1: Demographic Data

<b>1-Gender</b>	N	%
-Male	0	0.0
-Female	25	100.0
<b>2-Marital Status</b>		
-Single	15	60.0
- Married	9	6.0
- Divorced	1	4.0
<b>3-Age (years)</b>		
20-25	19	76.0
35-40	6	24.0
<b>4-Graduate</b>		
Month-1year	10	40.0
1 year- 3	6	24.0
3-5 years	3	12.0
5-10 years	6	24.0
<b>5- number of Years experience</b>		
month-1year	13	52.0
1 year- 3	6	24.0
3-5 years	2	8.0
5-10 years	4	16.0
<b>6- Race</b>		
Non- saudia	0	0.0
Saudia	25	100.0
<b>7 -Number of working hours</b>		
9-15	14	56.0
25-45	5	20.0
45-56	6	24.0
<b>8 -Nursing education</b>		
Diploma	12	48.0
Associate degree in nursing	1	4.0
Bachelor's degree in nursing	12	48.0
<b>9 -Currently enrolled in nursing program</b>		
Yes	22	88.0
No	3	12.0
<b>10 - Type of nursing program</b>		
Internship	84	16.0
In-service	21	84.0
<b>11 - Dialysis certified nephrology RN</b>		
Yes	10	40.0
No	15	60.0
<b>12 - In what country did you train</b>		
KSA	22	88.0
EGP	3	12.0

Table 2:

(44%) of nurses intended to leave the current position after 3 Years and (32%) of nurses after 1 year. Regarding primary reason for leaving position, (44%) of nurses had personal reason also 44 % will leave the position due to work overload. if

nurses leave the current position, 84 % will change the unit. While, 16 % will leave nursing. (80%) of nurse they recommend nephrology as career (72%) of nurse recommended hiring nurse from other countries.

Table 2. Nurses intended to leave the current position

<b>Did you intend to leave current position</b>	<b>N</b>	<b>%</b>
<b>1 Year</b>	<b>8</b>	<b>32.0</b>
<b>2 Years</b>	<b>3</b>	<b>12.0</b>
<b>3 Years</b>	<b>11</b>	<b>44.0</b>
<b>4 Years</b>	<b>2</b>	<b>8.0</b>
<b>5 Years or more</b>	<b>1</b>	<b>4.0</b>
<b>Primary reason for leaving position</b>		
<b>Work overload</b>	<b>11</b>	<b>44.0</b>
<b>Complete study</b>	<b>3</b>	<b>12.0</b>
<b>Personal reason</b>	<b>11</b>	<b>44.0</b>
<b>If you leave your current position you are likely</b>		
<b>Change the unit</b>	<b>21</b>	<b>84.0</b>
<b>Leave nursing</b>	<b>4</b>	<b>16.0</b>
<b>Recommend nephrology nursing as career</b>		
<b>Yes</b>	<b>20</b>	<b>80.0</b>
<b>No</b>	<b>5</b>	<b>20.0</b>
<b>- Recommend hiring nurse from other countries</b>		
<b>Yes</b>	<b>18</b>	<b>72.0</b>
<b>No</b>	<b>7</b>	<b>28.0</b>

Table 3: Satisfaction scale - 40 % of nurses were very dissatisfied in relation to working hours, 72 % of nurse have Moderately satisfied about salary, 48 % of nurse very satisfied relation to amount of responsibility.

Table 3: Satisfaction scale

	Very satisfied		Moderately satisfied		Neither satisfied nor dissatisfied		Moderately dissatisfied		Very dissatisfied	
	%	n	%	n	%	n	%	n	%	n
Salary	24.0	6	72.0	18	4.0	1	0.0	0	0.0	0
Vacation	0.0	0	32.0	8	52.0	13	0.0		16.0	4
Benefits nankage (insurance retirement)	12.0	3	20.0	5	40.0	10	8.0	2	20.0	5
Hours that you work	0.0	0	36.0	9	16.0	4	8.0	2	40.0	10
Flexibility in scheduling your hours	16.0	4	8.0	2	40.0	10	20.0	5	16.0	4
Opportunity to work straight days	4.0	1	24.0	6	44.0	11	24.0	6	4.0	1
Opportunity for part-time work	4.0	1	52.0	13	32.0	8	12.0	3	0.0	0
Weekends off per month	32.0	8	4.0	1	32.0	8	20.0	5	12.0	3

Flexibility in scheduling your weekends off	4.0	1	28.0	7	32.0	8	0.0	0	36.0	9
Compensation for working weekends	40.0	10	16.0	4	24.0	6	20.0	5	0.0	0
Maternity leave time	8.0	2	20.0	5	48.0	12	12.0	3	12.0	3
Child care facilities	0.0	0	12.0	3	32.0	8	32.0	8	24.0	6
Your immediate supervisor	16.0	4	44.0	11	32.0	8	8.0	2	0.0	0
Your nursing peers	28.0	7	44.0	11	24.0	6	4.0	1	0.0	0
The physicians you work with	24.0	6	28.0	7	24.0	6	20.0	5	4.0	1
The delivery of care method used on your unit (e.g. functional, team, primary)	8.0	2	28.0	7	20.0	5	16.0	4	28.0	7
opportunities for social contact at work	4.0	1	48.0	12	24.0	6	24.0	6	0.0	0
Opportunities for social contacts with your colleagues work	0.0	0	16.0	4	52.0	13	28.0	7	4.0	1
Opportunities to interact professionally with other disciplines	16.0	4	36.0	9	16.0	4	32.0	8	0.0	0
Opportunities to interact with faculty of the college of nursing	12.0	3	8.0	2	36.0	9	20.0	5	24.0	6
Opportunities to belong to department and institutional committees	0.0	0	20.0	5	32.0	8	32.0	8	16.0	4
Control over what goes on in your work setting	4.0	1	28.0	7	36.0	9	20.0	5	12.0	3
Opportunities for career advancement	0.0	0	4.0	1	48.0	12	16.0	4	32.0	8
Recognition for your work from supervisor	4.0	1	20.0	5	52.0	13	24.0	6	0.0	0
Recognition of your work from peers	32.0	8	56.0	14	0.0	0	4.0	1	8.0	2
Opportunities to participate in nursing research	8.0	2	8.0	2	28.0	7	36.0	9	20.0	5
Opportunities to write and publish	4.0	1	36.0	9	8.0	2	28.0	7	24.0	6
Your amount of responsibility	<u>48.0</u>	12	20.0	5	16.0	4	16.0	4	0.0	0
Your control over work conditions	20.0	5	40.0	10	20.0	5	8.0	2	12.0	3
Your participation in organizational decision making	32.0	8	40.0	10	4.0	1	4.0	1	20.0	5

Figure ( 1):

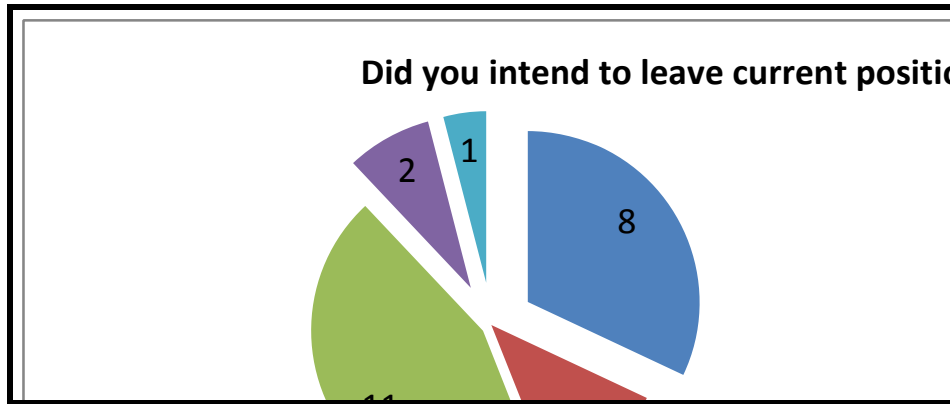


Figure 2:

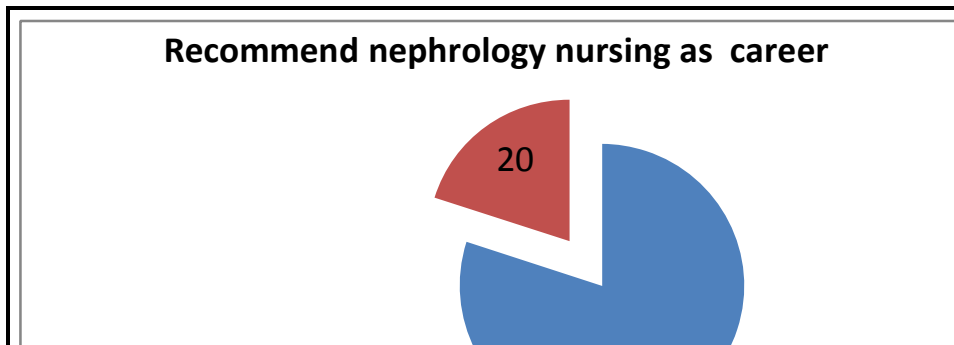
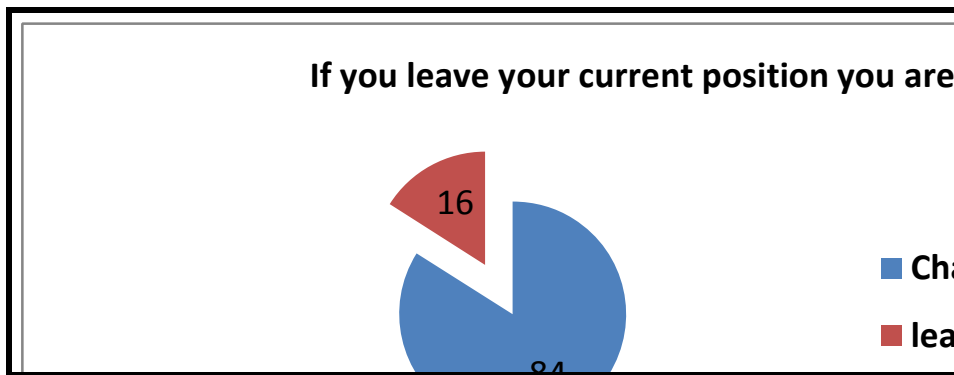


Figure: 4

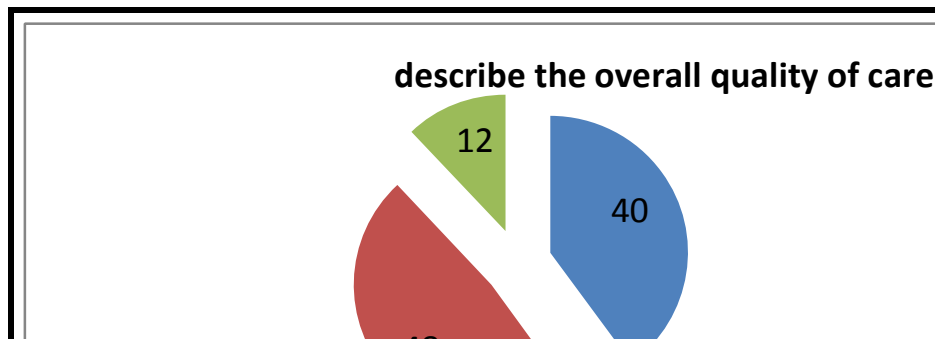


Table 4: satisfaction scale

This table shows the subscale categories measuring job satisfaction that were scored as follows: salary (M=4.20), amount of responsibility (M= 4), an overall mean score of 3.12 indicates that they are neither satisfied nor dissatisfied.

Table 4: satisfaction scale

Satisfaction scale items	Mean	±Std. Deviation (±SD)
Salary	4.20	.500
Vacation	3.00	1.000
Benefits bankage (insurance retirement)	2.96	1.274
Hours that you work	2.48	1.358
Flexibility in scheduling your hours	2.88	1.269
Opportunity to work straight days	3.00	.913
opportunity for part- time work	3.48	.770
weekends off per month	3.24	1.422
flexibility in scheduling your weekends off	2.64	1.350
compensation for working weekends	3.76	1.200
maternity leave time	3.00	1.080
child care facilities	2.32	.988
your immediate supervisor	3.68	.852
your nursing peers	3.96	.841
the physicians you work with	3.48	1.194
the delivery of care method used on your unit (e.g. functional, team, primary)	2.72	1.370
opportunities for social contact at work	3.32	.900
opportunities for social contacts with your colleagues work	2.80	.764
opportunities to interact professionally with other disciplines	3.36	1.114
opportunities to interact with faculty of the college of nursing	2.64	1.287
opportunities to belong to department and institutional committees	2.56	1.003
control over what goes on in your work setting	2.92	1.077
opportunities for career advancement	2.24	.970
recognition for your work from supervisor	3.04	.790
recognition of your work from peers	4.00	1.118
amount of encouragement and positive feedback	2.80	1.118
opportunities to participate in nursing research	2.48	1.159
opportunities to write and publish	2.68	1.314
your amount of responsibility	4.00	1.155
your control over work conditions	3.48	1.262
your participation in organizational decision making	3.60	1.500
Total	3.12	.258

#### 4. Discussion

Job satisfaction is a crucial issue to any healthcare organization as it is an indicator of the physical and psychological states of its employees. Therefore, it is important for administrators to understand the basis of job satisfaction because of the serious impact of dissatisfaction in the workplace. In nursing, job satisfaction as a topic has been studied, discussed and recognized as a key indicator of nurses' performance, cost savings and quality of patient care<sup>(17)</sup>.

Nursing as a profession is currently facing its greatest crisis. Despite a rapidly aging population with the need for increasing numbers of trained nurses, professional recruitment rates are falling and dropout rates are rising around the world. Specialized nursing may provide a way of attracting highly motivated individuals to the profession<sup>(19)</sup>. Dialysis nursing is the prototype of specialist nursing<sup>(20)</sup>.

Yet findings from studies indicate that skilled nurses in hemodialysis unit are associated with fewer adverse patient events including intradialytic



hypotension, skipped treatments, shortened treatments, hospitalization, and mortality<sup>(21, 22)</sup>. In addition to the growing shortages of nurses and the growing need to retain nurses<sup>(21)</sup>.

Nurses comprise the major component of all health care employees, being on the front line and having the most frequent direct contact with clients. Their job satisfaction, have a great impact on the organizational success<sup>(1,2)</sup>.

There is relatively little research about job satisfaction of nephrology nurses who provide care to patients on hemodialysis, a subset of nursing, their intent to stay, and hence the impact on patient outcomes. So, the primary purpose of this study was to explore factors of job satisfaction and the intent of nephrology nurses to stay or leave their position as well as to understand their perspective of the quality of care provided to patients in hemodialysis unit.

According to the scoring of McCloskey/Mueller Satisfaction Scale ( MMSS)<sup>(17)</sup>, a highest possible score of 5.0 indicates greatest satisfaction, and a total score of 3.0 or below indicates neither satisfaction nor dissatisfaction. The findings of this study show that nephrology nurses had an overall mean score of 3.12 indicating that nurses are neither satisfied nor dissatisfied. Job satisfaction of nurses in KSA has been investigated from different perspectives<sup>(23)</sup>. A study of the influence of job characteristics on job satisfaction of pediatric nurses in Jeddah, Kingdom of Saudi Arabia (KSA) revealed that levels of job satisfaction are relatively low regarding satisfaction subscales<sup>(24)</sup>.

Another study of nurses in Riyadh, KSA found nurses to be moderately satisfied. Levels of job satisfaction among nurses were found significantly different regarding working area, marital status, nationality, and age<sup>(25)</sup>.

The results of the present study revealed that the factors showing the higher satisfaction scores were salary, recognition of work from peers and amount of responsibility.

This result is consistent with finding from *Al-Ahmadi research*<sup>(26)</sup> that indicated that expansion of nursing roles and responsibilities, and provision of advanced technical training will improve feelings of job significance and pride among nurses, which will consequently improve their intrinsic satisfaction. In a contrast, an important finding of this study is that nurses were satisfied the least with pay and opportunity for advancement.

Pay and benefits are mentioned in other studies as important components of job satisfaction<sup>(27,28)</sup>. Moreover, Curtis (2007) in the Republic of Ireland also showed that pay is crucial to nurses' satisfaction. Pay was identified as the second most important component, yet it made the least contribution to

nurses' current level of satisfaction. The study also indicated that nurses' professional status and the level of interaction autonomy (being responsible for day-to-day decisions) were also factors that contributed to nurses' job satisfaction<sup>(29)</sup>.

In addition, Al-Ahmadi (2002) in a study on 500 nurses in nine Ministry of Health hospitals in Riyadh, Saudi Arabia, found that the most important determinants of job satisfaction were work conditions and pay<sup>(23)</sup>.

The results of the present study indicated that the scores with the least satisfaction were increased work load, child care facilities, opportunities for social contact and factors related to career advancement.

Regarding working load, Siu (2002) in his study found pay, limited earning potential, lack of recognition and respect from others and large work load to be the main themes for job dissatisfaction among nurses<sup>(30)</sup>.

Moreover, this study indicates that 44 % of nurses considered work overload as the primary reason for leaving the position. Many studies consider it as an alarming in that occupational burnout can result in negative consequences for the workplace and the worker. In hospitals, Lake (1998) found that burnout was directly related to nurses' intentions to leave their jobs and that intent-to-leave was a significant predictor of actual attrition<sup>(31)</sup>.

Furthermore, studies indicate that the negative consequences of burnout can extend to the worker's family, resulting in increased family stress and impaired marital relationships (Burke & Greenglass, 2001; Figley, 1998)<sup>(32,33)</sup>.

The results of the present study revealed that 44 % of nurses intend to leave current position after 3 years, while, This result is consistent with (Larrabee *et al.*, 2010) finding that the best predictors of intent to stay are: job satisfaction, a low stress environment, age and lower level of education<sup>(34)</sup>.

Nurses with intent to leave their current positions stated they would be leaving within the next 3–5 years. The most common reasons cited were little control over practice and limited opportunities for internal career advancement.

Bryant-Lukosius and colleagues (2007) also recognized personal growth and career advancement as reasons for leaving current positions<sup>(35)</sup>.

This study results highlight the fact that quality of patient care was a major concern of nephrology nurses who believe that the patient comes first as 48 % of nurses described the overall quality of care as good and 40% of nurses as excellent. They strongly feel that they provide care to a fragile population and their dedication, compassion and commitment to the patient were essential to the patients' well-being.



However, long hours, heavy workloads and staffing shortages place patients at risk.

This study indicated that nephrology nurses have a sense of pride gained from their accomplishments of specialty certification, proficiency in nephrology nursing, and contributions to nursing practice. Moreover, the majority of nurses recommend nephrology nursing to other nurses as a good career opportunity. They recommend that new graduate nurses gain other experienced before hiring on to this specialty.

As nurses' age, and the longer nephrology nurses remain with the institution, the more likely they will be to stay<sup>(35,36)</sup>. Considering that the physical stress and emotional demands of the job become more difficult with age, these are major concerns of nurses who want to retire from this specialty. With the growing shortages of nurses and the growing need to retain nurses, management needs to be aware of the factors that lead to satisfaction and retention. There continues to be a need for more educated, experienced and skilled nurses to care for the dialysis patient, and this same need continues to be a demand within hospital nursing<sup>(35,36)</sup>.

#### Conclusions & Recommendations.

- Nephrology nurses are neither satisfied nor dissatisfied.
- The factors showing higher satisfaction scores were salary, recognition of work from peers and amount of responsibility.
- The scores with the least satisfaction were increased work load, child care facilities, opportunities for social contact and factors related to career advancement.
- 44 % of nurses intend to leave current position after 3 years
- 44 % of nurses considered work overload as the primary reason for leaving the position
- that quality of patient care was a major concern of nephrology nurses

#### Recommendations

- The following recommendations are made to improve nurses' satisfaction and, thus, the quality of care provided in hemodialysis units. Most nurses in this research were dissatisfied over work load, child care facilities, opportunities for social contact and factors related to career advancement.
- Therefore, nurses' job satisfaction may improve if these factors to be considered, such as increased staffing, availability of child care facilities, increased opportunities for social contacts and encouragement of career advancement

#### Suggestions for future research

- Further research into this subject area is needed to validate the factors influencing nephrology nurses' job satisfaction. It would be ideal if this research was replicated concentrating on a larger sample of nurses from the other hospitals. Additionally,
- It would be useful to use mixed methods research (quantitative and qualitative) to study job satisfaction in this population to gain a better understanding of the issues and to increase the knowledge about job satisfaction among hemodialysis units.

#### References

1. Aiken, L., Clarke, S.P., Sloane, D.M., Sochalski, J., & Silber, J.H. (2002). Hospital nurse staffing and patient mortality, nurse burnout, and job dissatisfaction. *Journal of the American Medical Association*, 288, 1987-1993.
2. Al-Enezi, N., Chowdhury, R., Shah, M. & Al-Otobi, M. (2009) Job satisfaction of nurses with multicultural backgrounds: a questionnaire survey in Kuwait. *Applied Nursing Research*, 22, 94-100.
3. Aiken LH, Clarke SP, Sloane DM. Hospital staffing, organization, and quality of care: Cross-national findings. *International Journal for Quality in Health Care* 2002; 14(1): 5-13.
4. Aiken LH, Clarke SP, Sloane DM, Sochalski JA. An international perspective on hospital nurses' work environments: The case for reform. *Policy, Politics, & Nursing Practice* 2001;2(4):255-263.
5. Foong Loke JC. Leadership behaviours: effects on job satisfaction, productivity and organizational commitment. *Journal of Nursing Management*. 2001; 9(4):191.
6. Ross J., Jones J., Callaghan P., Eales S., Ashman N. (2009). A survey of stress, job satisfaction and burnout among haemodialysis staff. *Journal of Renal Care* 35(3), 127-133.
7. Argentero P., Dell'Olivo B. & Ferretti M.S. (2008). Staff burnout and patient satisfaction with the quality of dialysis care. *American Journal of Kidney Diseases* 51(1), 80-92.
8. Arikan F., Koksall C.D. & Gokce C. (2007). Work-related stress, burnout, and job satisfaction of dialysis nurses in association with perceived relations with professional contacts. *Dialysis and Transplantation* 36(4), 182-191.
9. Di Iorio B, Cillo N. & Cucciniello V.B. (2008). Burn-out in the dialysis unit. *Journal of Nephrology* 21(13), 158-162.
10. De Silva P.V., Hewage C.G. & Fonseka P. (2009). Burnout: an emerging occupational health problem. *Galle Medical Journal* 14(1), 52-55.
11. Hayes B., Bonner A. (2010). Job satisfaction, stress and burnout associated with haemodialysis nursing:

- a review of literature. *Journal of Renal Care* 36(4), 174-179.
12. Lu H., While A.E. & Barriball K.L. (2005). Job satisfaction among nurses: a literature review. *International Journal of Nursing Studies* 42(2), 211-227.
  13. Adams A. & Bond S. (2000). Hospital nurses' job satisfaction, individual and organisational characteristics. *Journal of Advanced Nursing* 32(3), 536-543.
  14. Jourdain G. & Chenevêrt D. (2010). Job demands-resources, burnout and intention to leave the nursing profession: a questionnaire survey. *International Journal of Nursing Studies* 47, 709-722.
  15. Aiken LH, Clarke SP, Sloane DM, Sochalski J, Silber JH. Hospital nurse staffing and patient mortality, nurse burnout, and job dissatisfaction. *Journal of the American Medical Association* 2002;288(16):1987-1993.
  16. Brokalaki H., Matziou J., Thanou J. *et al.* (2001). Job-related stress among nursing personnel in Greek dialysis units. *EDTNA/ERCA Journal* 27(4), 181-186.
  17. Mueller, C., & McCloskey, J. (1990). Nurses' job satisfaction: a proposed measure. *Nursing Research*, 39(2), 113-117.
  18. Seago JA. The California experiment: alternatives for minimum nurse-to-patient ratios. *J Nurs Adm*.2002;32:48-58.
  19. Freeman T, O'Brien-Pallas LL. Factors influencing job satisfaction on specialty nursing units. *Can J Nurs Adm* 1998; 11: 25-51.
  20. Holley, J.L., & McGuirl, K. (2000). Advanced practice nurses in ESRD: Varied roles and a cost analysis. *Nephrology News & Issues*, 14, 18- 27.
  21. Saran R, Bragg-Gresham JL, Rayner HC, Goodkin DA, Keen ML, Van Dijk PC, *et al.* Non adherence in hemodialysis: Associations with mortality, hospitalization, and practice patterns in DOPPS. *Kidney International*. 2003;64:254-262.
  22. Thomas-Hawkins C, Flynn L, Clarke SP. Relationships between registered nurse staffing, processes of nursing care, and nurse-reported patient outcomes in chronic hemodialysis units. *Nephrology Nursing Journal*. 2008;35(2):123-131
  23. Al-Ahmadi, H.A. (2002) Job satisfaction of nurses in Ministry of Health Hospitals in Riyadh, Saudi Arabia. *Saudi Medical Journal*, 23 (6), 645-650.
  24. Badawi YA, Essawy MA. Influence of Job Characteristics on Job Satisfaction of Pediatric Nurses. *J Egypt Public Health Ass* 1992; 67: 403-417.
  25. Al-Aameri AS. Job satisfaction and organizational commitment for nurses. *Saudi Med J* 2000; 21: 531-535.
  26. Al-Ahmadi, H.A. (2009) Factors affecting performance of hospital nurses in Riyadh Region, Saudi Arabia. *International Journal of Health Care Quality Assurance*, 22 (1), 40-54.
  27. Ravari, A., Bazargan, M., Vanaki, Z. & Mirzaei, T. (2011) *Job satisfaction among Iranian hospital-based practicing nurses: examining the influence of self-expectation, social interaction, and organisational situations.* *Journal of Nursing Management.* DOI: 10.1111/j.1365-2834.2010
  28. Sparks, S.A., Corcoran, K.J., Nabors, L.A. & Hovanitz, C.A. (2005) *Job satisfaction and subjective well-being in a sample of nurses.* *Journal of Applied Social Psychology*, 35 (5), 922-938.
  29. Curtis, E.A. (2007) *Job satisfaction: a survey of nurses in the Republic of Ireland.* *International Nursing Review*, 54 (1), 92-99.
  30. Siu OL. Experience before and throughout the nursing career: predictors of job satisfaction and absenteeism in two samples of Hong Kong nurses. *Journal of Advanced Nursing*. 2002; 40(2): 218.
  31. Lake ET. Advances in understanding and predicting nurse turnover. *Research in the Sociology of Health Care*. 1998;15:147-171.
  32. Burke, R. J., & Greenglass, E. R. (2001). Hospital restructuring, work-family conflict and psychological burnout among nursing staff. *Psychology and Health*, 16, 83-94.
  33. Figley, C. R. (1998). *Burnout in families: The systematic cost of caring.* Boca Raton, FL: CRC Press.
  34. Larrabee, J., Ying, W., Persily, C., Simoni, P., Johnston, P., Marcischak, T., Gladden, S. (2010). Influence of stress resiliency on RN job satisfaction and intent to stay. *Western Journal of Nursing Research*, 32(1), 81-102.
  35. Bryant-Lukosius, D., Green, E., Fitch, M., Macartney, G., Robb-Blenderman, L., McFarlane, S., *et al.* (2007). A survey of oncology advanced practice nurses in Ontario: Profile and predictors of job satisfaction. *Nursing Leadership*, 20(2), 50-68.
  36. Strachota, E., Normandin, P., O'Brien, N., Clary, M., & Krukow, B. (2003). Reasons registered nurses leave or change employment status. *The Journal of Nursing Administration*, 33(2), 111-117.