

Patient Satisfaction with Nursing Care Based on Newcastle Satisfaction with Nursing Scale in Erbil / Iraq

Mazin A. Hajy¹, Khadija M. Ahmed², Nyaz S. Ahmed³, Hamdia M. Ahmed+

Abstract: *Background and Objective:* Patient satisfaction with nursing care remains essential in explaining patients' perceptions of service quality. Accordingly, healthcare institutions need to check and be highly concerned about consumers' requests and evaluations periodically and continuously. The study aimed to measure the patients' experiences and satisfaction with nursing care who were admitted in the government hospitals in Erbil - Iraq, using the Newcastle Satisfaction with Nursing Scale (NSNS). *Method:* A cross-sectional descriptive study was conducted; the data were collected from 100 patients in the main hospitals in Erbil-Iraq (Rezgary, Maternity, and Hawler Teaching hospitals) on the day of the discharge or transfer to another ward by using the questionnaire of Newcastle Satisfaction with Nursing Scale (NSNS) which consists of 3 sections; experience scale, satisfaction scale, and patient's demographic information. The Experiences of Nursing Care Scale (Experience Scale) consists of 26 statements and the Satisfaction with Nursing Care Scale (Satisfaction Scale) consists of 19 statements. Item scores for each scale are transformed and summed so that the two scale scores range from 0 to 100. An Experience Scale score of 100 signifies that the patient perceived that they experienced the best possible care, and a Satisfaction Scale score of 100 indicates that they were 100% satisfied with that care. *Results:* The correlations between variables were analyzed using the Kruskal-Wallis tests. A total of 100 patients participated in the study. The Experience of Nursing Care Scale and Satisfaction with Nursing Care Scale were highly significantly correlated ($p < 0.001$). The average result on the 'experience' scale was 52.83 (Median 51.92), and on the 'satisfaction' scale was 53.10 (Median 50.00). The result indicated that there was statistically significant difference between mean rank of 'satisfaction with nursing care' scale with residence ($p = 0.031$), marital status ($p = 0.005$), current duration of admission ($p = 0.005$) and type of patient's room ($p = 0.001$), while the mean rank of 'experience of nursing care' scale with age ($p = 0.371$), gender ($p = 0.485$), educational level ($p = 0.709$), occupation ($p = 0.898$) and previous admission ($p = 0.986$) were not statistically significant. *Conclusion:* The overall mean NSNS score in Erbil governmental hospitals shows a moderate level of patient satisfaction with nursing care. Further studies are recommended to determine the factors behind the moderate scale of patient satisfaction with nursing care to improve the quality of health services.

Keywords: patient satisfaction, nursing care, NSNS, cross-sectional study, Erbil, Iraq

1. Introduction

Health services primarily aim to provide high-quality services to clients(1-2). Patient satisfaction with nursing care remains essential in explaining patients' perceptions of service quality(3). Patient satisfaction has been used as an indicator of the quality of services healthcare personnel provide (4). Customers, who used to be passive, tend now to ask actively for detailed or specific services that they need and then evaluate the services provided(5). In the healthcare industry, consumerism means that having a voice and information and participating in decision-making are critical factors for patients. Accordingly, healthcare institutions need to check and be highly concerned about consumers' requests and evaluations periodically and continuously(6). The quality and adequacy of healthcare services can be measured based on the views and satisfaction of patients and their relatives(7). The most important predictor of patients' overall satisfaction with hospital care is related to their satisfaction with nursing care(4). Seven main dimensions have been addressed in the literature as crucial in measuring patient satisfaction. These dimensions are: (i) respect for patients' values, preferences, and expressed needs; (ii) coordination, integration, and information flow; (iii) information and education; (iv) physical comfort; (v) emotional support and alleviation of fear and anxiety; (vi) involvement of family and friends; and (vii) transition and continuity(8-9).

A very important aspect on which patient satisfaction depends is 'nursing care' because nurses are involved in

almost every aspect of client's care in the hospital(9). There has been increasing interest in patients' satisfaction with nursing care in the past few decades(10). Patient satisfaction is defined as the patient's perception of care received compared to expected care. Patients base their expectations on their encounters with the behaviors of nurses(11-12). According to Sitzia and Wood (1997), patients' expectations of the healthcare service and the actual care provided to the patient are different (13). A patient satisfaction rating is both a measure of care and a measure of the patient who provides the rating(14). From a psychological perspective, according to Pascoe (1983), patient satisfaction can be defined as a health care recipient's reaction to salient aspects of the context, process, and result of their service experience (15). Satisfaction results from meeting expectations. The higher one's expectations, the less service average performance can meet or exceed them, often reducing satisfaction or even dissatisfaction(16). Like other scales measuring patient satisfaction, Newcastle Satisfaction with Nursing Scale (NSNS) provides relative, but not absolute, values(17).

The aim of our study was (i) To assess the patients' experiences and satisfactions with nursing care received and services provided to patients who were admitted in the public governmental hospitals in Erbil/ Iraq, and (ii) to compare the level of patients' satisfaction and their experiences according to demographic variables of patients, hospital wards and hospital settings using the Newcastle Satisfaction with Nursing Scale (NSNS).

2. Methods

Study Design

This study adopted a descriptive cross-sectional design, utilizing the Nursing Satisfaction and Quality of Care Scale (NSNS) to assess patients' satisfaction with nursing care. The research was conducted between Jun 1 and Sept 30 2023 in the most prominent public hospitals in Erbil city, Kurdistan Region- Iraq, encompassing 100 patients who met the following eligibility criteria: (both genders, adult patients aged 18 years and over, stayed in the ward for at least two days, were on the discharge day or transfer to another ward, has agreed for participation in the study and has no consciousness disturbances. Patients were excluded in the study if they were (end stage, too confused, too ill to communicate with or refused to participate). The study was explained to all patients. Each form for each patient was coded with a number. Patients had the right to withdraw from the study at any stage. Data were collected using an NSNS questionnaire.

Nursing Satisfaction with Nursing Scale (NSNS)

The NSNS, developed first by Thomas et al. in 1996, is specifically designed to evaluate patients' perceptions and contentment with nursing care. It employs a structured, self-administered questionnaire from patient interviews, capturing various themes such as nurses' availability, personalized care, information provision, and approachability. The NSNS comprises demographic information, satisfaction with nursing care scale, and an overall patient satisfaction single-item scale (18).

The NSNS was formulated using a structured, self-administered questionnaire that was derived from individual and focus group interviews with patients. The interviews revealed several key themes, including the significance of nurses' availability and attentiveness, the level of personalized care, the provision of information and reassurance, and the approachability and informal nature of nurses. Less frequently mentioned themes encompassed nurses' professionalism and knowledge, ward organization, and the environment. The NSNS is intended to provide a comprehensive assessment of nursing care quality based on these patient-centric themes (18). The NSNS includes demographic information, satisfaction with nursing care scale, and one item scale (seven-point response scale) of overall patient satisfaction.

The first part refers to the experiences with nursing care (see Table 1). It is composed of 26 statements on aspects of nursing, are presented. Respondents are asked to indicate how true each is of their own experience, using a seven-point Likert scale, (where 1 is equal to disagree completely, 2 = disagree a lot, 3 = disagree a little, 4 = neither agree nor disagree, 5 = agree a little, 6 = agree a lot and 7 = agree completely), the analysis of answers allows to define the overall scoring of "experience" within the range from 0 to 100 points, where 100 means the best and 0 means the worst experience of the nursing care. The second part refers to the satisfaction with nursing (see Table 2), it is composed of 19 questions assessed separately on a 5-point Likert scale (1 = not at all satisfied, 2 = barely satisfied, 3 = quite satisfied, 4 = very satisfied, and 5 = completely satisfied). The final

section elicits demographic information about the patient and details of the hospital stay.

Table 1: Patient's Experience with Nursing Care Scale

- 1) It was easy to have a laugh with the nurses
- 2) Nurses favored some patients over others
- 3) The nurses did not tell me enough about my treatment
- 4) Nurses were too easygoing and laid back
- 5) Nurses took a long time to come when they were called
- 6) Nurses gave me information just when I needed it
- 7) Nurses did not seem to know what I was going through
- 8) Nurses turned the lights off too late at night
- 9) Nurses made me do things before I was ready
- 10) No matter how busy the nurses were, they made time for me
- 11) I saw nurses as friends
- 12) Nurses spent time comforting patients who were upset
- 13) Nurses checked regularly to make sure I was okay
- 14) Nurses let things get on top of them
- 15) Nurses took no interest in me as a person
- 16) Nurses explained what was wrong with me
- 17) Nurses explained what they were going to do to me before they did it
- 18) Nurses told to the next shift what was happening with my care
- 19) Nurses knew what to do without relying on doctors
- 20) Nurses used to go away and forget what patients asked for
- 21) Nurses made sure that patients had privacy when they needed it
- 22) Nurses had time to sit and talk to me
- 23) Doctors and nurses worked well together as a team
- 24) Nurses did not seem to know what each other was doing.
- 25) Nurses knew what to do for the best
- 26) There was a happy atmosphere in the ward, thanks to the nurses

Table 2: Patient's Satisfaction with Nursing Care Scale

- 1) The amount of time nurses spend with you
- 2) How capable nurses were at their job
- 3) There was always a nurse around if you needed one
- 4) The amount nurses knew about your care
- 5) How quickly nurses came when you called for them
- 6) The way the nurses made you feel at home
- 7) The amount of information nurses gave to you about your condition and treatment.
- 8) How often nurses checked to see if you were okay
- 9) Nurses' helpfulness
- 10) The way nurses explained things to you
- 11) How nurses helped to put your relatives' or friends' minds at rest
- 12) Nurses' manner in going about their work
- 13) The type of information nurses gave to you about your condition and treatment.
- 14) Nurses' treatment of you as an individual
- 15) How nurses listened to your worries and concerns
- 16) The amount of freedom you were given on the ward
- 17) How willing nurses were to respond to your requests
- 18) The amount of privacy nurses gave you
- 19) Nurses' awareness of your needs

To mitigate response-set bias, certain statements in both

scales are framed in negative and positive terms, and certain Likert descriptors are reversed in the Experience Scale. The scores for individual items in each scale undergo transformation and summation, resulting in scale scores ranging from 0 to 100. The last part of the survey gathers demographic data and information regarding the patient and their hospitalization (1). The NSNS was found to be valid and reliable in previous studies. (19, 20, 21)

Ethical Considerations

Verbal informed consent was obtained from all participating patients after the study received approval from the Ethical Committee of Erbil Directorate of Health and Hospital Administrations. Patients were assured of the confidentiality of their identities and responses, with all completed questionnaires securely stored.

Data Analysis

Data were prepared, organized, and entered into the computer, then analyzed using the Statistical Package for Social Sciences (SPSS, version 25). Descriptive statistics were computed for demographic variables, such as means, standard deviations, frequencies, and percentages. The variables, expressed on an ordinal scale, specifically questions related to satisfaction and experience with nursing, were characterized using median values along with minimum and maximum values using the Microsoft Office Excel program. A significance level of $p < 0.05$ was considered. The Spearman correlation test, Mann-Whitney U-test, and Kruskal-Wallis tests were utilized to examine differences in non-normally distributed continuous variables. Pearson's correlation coefficient was used to test the hypotheses.

3. Results

A total of 100 patients participated, yielding a 100% response rate. Demographic characteristics associated with

satisfaction were analyzed, revealing statistically significant differences in certain factors. There was a significant difference in the mean rank of satisfaction scales concerning residence ($p=0.031$), marital status ($p=0.005$), current duration of admission ($p=0.005$), and type of patient's room ($p=0.001$) (See Table 3). The highest percentage of admission duration of stay in hospital was 79 (79.0%) ($SD \pm 0.409$). 55% of the patients were being treated for medical problems, the rest for obstetrical and surgical words (27%, 20%) respectively.

The result indicated that there was a statistically significant difference between the mean rank of 'satisfaction with nursing' scale with residence ($p= 0.031$), marital state ($p=0.005$), current duration of admission ($p=0.005$) and type of patient room ($p=0.001$), while the mean rank of 'experience of nursing care' scale with age ($p=0.371$), gender ($p=0.485$), educational level ($p=0.709$), occupation ($p=0.898$) and previous admission ($p=0.986$) was not statistically significant.

From NSNS with experience of nursing care scale items, the "Nurses knew what to do for the best" was item scored the highest mean score of 65.00, whereas "Nurses did not seem to know what I was going through" was the lowest mean score 41.00, the average result on the 'experience' scale was 52.83 (Median 51.92). In the Satisfaction with nursing care scale items, the "Nurses' awareness of your needs" had the highest mean score, 64.00 and items "The amount nurses knew about your care" and "The way the nurses made you feel at home" was the lowest mean score 48.00, The average result on the 'satisfaction' scale was 53.10 (Median 50.00).

Furthermore, there was a significant correlation ($P < 0.001$) between total patient_ scores on the 19-item satisfaction with nursing scale and the 26-item Experience of nursing care scale on overall patient satisfaction (See Table 4).

Table 3: Patient characteristics associated with satisfaction
Mean Rank of Experience & Satisfaction Scale

Characteristics	n	%	Std. Deviation	E. Scale	p-value	S. Scale	p-value
<u>Hospital Maternity</u>	30	30		54.37		48.72	
Hawler	43	43	0.758	47.59	0.615	44.87	0.061
<u>Rezgary Age</u>	27	27		50.83		61.44	
18-34	31	31		48.37		50.15	
35-44	33	33	0.978	48.94	0.371	53.94	0.676
45-65	26	26	51.08			43.1	
65+	10	10	60.75		59.5		
<u>Gender</u>							
Male	44	44	0.499	52.78	0.485	49.15	0.679
Female	56	56		48.71		51.56	
<u>Education</u>							
Illiterate	29	29		53.26		59.4	
Primary	21	21		51.83		53.86	
Secondary	17	17	1.49	41.47	0.709	48.12	0.051
Tertiary	14	14		53.86		52.39	
<u>High degree Occupation</u>	19	19		50.42		33.95	
Governmental Employee	15	15		33		27.7	
Private Worker	14	14		24.5		12	
Retired	15	15	1.725	29.83	0.898	32.33	0.566
Disable	2	2	26.75			16.5	
Housewife	41	41	25.74			29.14	
Jobless	13	13	29.44			29.11	

<u>Residence</u>							
Urban	71	71	0.456	46.99	0.058	46.51	0.031
Rural <u>Marital state</u>	29	29		59.09		60.26	
Single	23	23		42.26		42.26	
Married	71	71	0.514	53.56	0.246	53.56	0.005
Divorced or Widowed	6	6		45.92		45.92	
<u>Ward admission</u>							
Medical	37	37		45.68		46.23	
Surgical	20	20	1.115	58.65	0.39	49.15	0.244
Obstetrics & Gynecology	27	27	53		49.57		
Others	16	16	47.25		63.63		
<u>Current admission duration</u>							
3-7 days	79	79	0.409	51.44	0.53	54.68	0.005
8-15 days <u>Room Type</u>	21	21	46.98		34.76		
Usual room	86	86	0.349	51.81	0.001	54.21	0.263
Special room	14	14			42.46		27.71

Table 4: Correlation between Experience and Satisfaction scales

	Mean Experience	Mean Satisfaction	P-Value
Mean Experience	1	0.462	< 0.001
Mean Satisfaction	0.462	1	< 0.001

4. Discussion

The primary purpose of this study was to examine the role of the Newcastle Satisfaction with Nursing Scale (NSNS) in patients' experiences and satisfaction in the hospitals. The results showed that the NSNS had good reliability and validity and that it was positively correlated with other measures of patient satisfaction. It has indicated that there was statistically significant difference between the mean rank of 'satisfaction with nursing' scale with marital state, current duration of admission, and type of patient room, while the mean rank of 'experience of nursing care' scale with age, gender, educational level, occupation and previous admission was not statistically significant. In line with the hypothesis, The NSNS also captured some aspects of patient satisfaction, such as the nurses' interpersonal skills and emotional support. These findings suggest that the NSNS is a valuable tool for assessing and improving the quality of nursing care in different settings and populations.

The results of assessing patient satisfaction indicate the importance of nursing care for patient satisfaction and outcomes. A meta-analysis by Liu et al. (2021) found that higher nurse staffing levels, education, and work environment were associated with lower mortality, readmission, and adverse events among hospitalized patients. (22) Similarly, a systematic review by Alaloul et al. (2015) reported that factors such as nurse communication, responsiveness, empathy, and professionalism influenced patient satisfaction with nursing care. These results build on existing evidence that the NSNS can be used to measure and enhance these factors, and to identify areas of improvement for nursing practice and education. (23)

In our study, the sample size was relatively small (n = 100) due to the fast discharge of patients nowadays in hospitals on the first or second day of admission. Secondly, there are many private hospitals admitting patients as well, which we should have included in our study. Furthermore, the NSNS is a relatively long questionnaire, with 26 items, a 7-point Likert scale, and a 5-point Likert scale. It may take about 15 minutes to complete, which may affect the response rate and

the accuracy of the answers. Some patients may find the NSNS too complex or difficult to understand, especially those with low literacy, cognitive impairment, or language barriers; this influenced the results and moderated the effect of the NSNS on patient satisfaction.

The technique of NSNS in patients' experiences and satisfaction in hospitals in Erbil City clarified some findings and elicited suggestions for how to fix specific problems. Numerous studies have identified patients' desire for greater information from nurses about their health concerns as a fundamental flaw in nursing care. As a result, nurses must examine the significance of this issue in enhancing the quality of treatment and seek solutions to be more efficient regarding the quality and volume of information delivered to patients. The potential benefits of assessing patients' satisfaction with nursing care make more research a top priority for monitoring care overtime and evaluating nursing advances. Different versions of Satisfaction with Nursing Care Scales are available. The Turkish version of NSNS demonstrated adequate reliability and validity, and their findings underline the necessity of providing patients with information about their medical condition, assisting patients' families, and focusing more closely on patients' needs (24). In the Jordan version, a longitudinal comparison of the examined wards after implementing a specific intervention would help improve nursing care quality (25).

The findings of this study are consistent with previous studies that have used the NSNS in different settings and countries. The NSNS is a useful instrument for assessing patient satisfaction with nursing care and identifying the strengths and weaknesses of nursing services. The study also provides insights into the factors that affect patient satisfaction and the areas that need improvement. The study suggests some recommendations for enhancing the quality of nursing care, such as improving communication skills, providing adequate information, and offering emotional support to patients.

5. Conclusion

The overall mean of NSNS score in Erbil governmental hospitals shows moderate patient satisfaction with nursing care. The NSNS had good reliability and validity, and it was positively correlated with other patient satisfaction measures. There was significant difference between mean rank of 'satisfaction with nursing' scale with residence, marital state, current duration of admission and type of patient room. Further studies are recommended to determine the factors behind the moderate levels of patient satisfaction with nursing care to improve the quality of health services.

References

- [1] Peterson WE, Charles C, Di Censo A, Sword W. The Newcastle Satisfaction with Nursing Scales: a valid measure of maternal satisfaction with inpatient postpartum nursing care. *J Adv Nurs*. 2005;52(6):672-81.)
- [2] Linder-Pelz SU. Toward a theory of patient satisfaction. *Soc Sci Med*. 1982;16(5):577-82.)
- [3] Jafar Alasad, Nazih Abu Tabar, Mohannad Eid AbuRuz. Patient Satisfaction With Nursing Care Measuring Outcomes in an International Setting. *The Journal of Nursing Administration*. 2015; Volume 45, Number 11, pp 563-568
- [4] Mahon P.Y. (1997) Review of patient satisfaction measures with nursing care. *The Journal of Nursing Scholarship* 29(2), 196.
- [5] J. Morath. Changing the healthcare culture: the consumer as part of the system of care. *Frontiers of Health Service Management* 1994 (2003), pp. 17-28.
- [6] Mi Aie Leea, Young-Hee Yom. A comparative study of patients' and nurses' perceptions of the quality of nursing services, satisfaction and intent to revisit the hospital: A questionnaire survey. *International Journal of Nursing Studies* 44 (2007), 545-555.
- [7] Merkouris, A. , Andreadou, A. , Athini, E. , Hatzimbalasi, M. , Rovithis, M. , & Papastavrou, E. (2013). Assessment of patient satisfaction in public hospitals in Cyprus: A descriptive study. *HealthScience Journal*, 7(1), 28-40.
- [8] Muriel B. Ryden, Cynthia R. Gross, Kay Savik, Mariah Snyder, Heeyoung Lee Oh, Yuh-Pyng
- [9] Jang, Jing-Jy Wang, Kathleen E. Krichbaum. Development of a measure of resident satisfaction with thenursing home. *Research in Nursing and Health*. Volume23, Issue3. June 2000. Pages 237-245.
- [10] Mufti Samina, Qadri GJ, Tabish SA, Mufti Samiya, R Riyaz. Patient's Perception of Nursing Care at a Large Teaching Hospital in India. *International Journal of Health Sciences* Vol. 2 No. 2 July 2008 (Jumad'a Thani 1429 H)
- [11] Jafar A. Alasad, Muayyad M. Ahmad. Patients' satisfaction with nursing care in Jordan. *Journal of Nursing Management*. 2022 Nov;30(8):3885-3887.
- [12] Aiello, A., Garman, A. and Morris, B. S. Patient satisfaction with nursing care: A multilevel analysis. *Journal of Quality Management in Health Care* 2003; 12 (3): 187-191.
- [13] Js Gurbinder Kaur, Syed Zulkifli Syed Zakaria, Ho Siew Eng, Syed Rozaidi Wafa, Syed Zakaria. Post-Cardiac Surgery Patient Satisfaction with Quality Nursing Care at Institute Jantung Negara (IJN). *Med & Health* 2006; 1(1):14-19
- [14] Sitzia, J., Wood, N. Patient satisfaction: A review of issues and concepts. *Social Science and Medicine*, 45(12), 1829-1843.
- [15] John E Ware, Mary K. Snyder, W.Russell Wright, Allyson Ross Davies. Defining and Measuring patient satisfaction with medical care. *Eval Program Plann*. 1983; 6(3-4):247-63.
- [16] Pascoe GC. Patient satisfaction in primary health care: A literature review and analysis. *Evaluation and Program Planning*. 1983; 6(3-4):185-210.
- [17] Boulding W, Kalra A, Staelin R, Zeithaml V. Dynamic process model of service quality. *J Market Res*. 1993; 30:7-27.
- [18] Black N and Sanderson C. Day surgery: development of a questionnaire for eliciting patients' experiences. *Quality in Health Care*. 1993; 2,157-61.
- [20] Thomas LH, McColl E, Priest J, Bond S, Boys RJ. Newcastle satisfaction with nursing scales: an instrument for quality assessments of nursing care. *Qual Health Care*. 1996 Jun;5(2):67-72.
- [21] Wendy E. Peterson, Cathy Charles, Alba DiCenso, Wendy Sword. The Newcastle Satisfaction with Nursing Scales: A valid measure of maternal satisfaction with inpatient postpartum nursing care. *Journal of Advanced Nursing*. 2005; 52(6):672-81
- [22] El-Nagger N, Ahmed SMA, Elsayed L, Khamis HMA. Patients' satisfaction regarding nursing care provided in different hospitals in Makkah Al Mukramah. *Life Sci J*. 2013 Jan 1;10:421-9.
- [23] Saad Ahmed Ali Jadoo. Shukur Mahmood Yaseen. Mustafa Ali Mustafa Al-Samarrai. Anmar Shukur Mahmood. Patient satisfaction in outpatient medical care: the case of Iraq. *Journal of Ideas in Health*. 2020; 3(2):176-182.
- [24] Kawthar Ali Dadoosh, Sadeq AL-Fayyadh. Hospitalized Patients' Satisfaction with Nursing Care Quality: A neurological Wards Focused Assessment. *Kufa Journal for Nursing Sciences*. 2022; VOL. 12 NO. 2 .
- [25] Dyk D, Gutysz-Wojnicka A, Cudak EK, Talarska D. Cultural adaptation and psychometric evaluation of the Polish version of the Newcastle Satisfaction with Nursing Scale. *Arch Med Sci AMS*. 2014 Aug 29;10(4):782-90.
- [26] Khaleel MA, Al-Hussein RAA. Assessment of Patients Satisfaction Regarding Nursing Care Provided at General Hospitals in Al-Najaf City. *Kufa J Nurs Sci*. 2015 Dec 20;5(3):120-6.
- [27] Xiaoyu Liu , Pengcheng Yi , Lijun Ma , Wen Liu , Wenrui Deng , Xinxin Yang , Meng Liang , Jingyi Luo , Ni Li , Xiaoming Li . Mindfulness-based interventions for social anxiety disorder: A systematic review and meta-analysis. *Psychiatry Res*. 2021 Jun: 300:113935.
- [28] Fawwaz Alaloul, Kimberly Williams , John Myers , Kayla DLauren Jones , M Cynthia Logsdon . Impact of a Script-based Communication Intervention on Patient Satisfaction with Pain Management. *Pain*

Management Nursing. 2015 Jun;16(3):321-7

- [29] Semiha Akin, Semra Erdogan. The Turkish version of the Newcastle Satisfaction with Nursing Care Scale used on medical and surgical patients. *J Clin Nurs*. 2007 Apr;16(4):646-53
- [30] Alasad JA & Ahmad MM. Patients' satisfaction with nursing care in Jordan. *International Journal of Health Care Quality, Assurance*. 2003; 16, 279–285.

Authors- Affiliation details:

Mazin Abdulrahman Hajy, MBChB, MD, FACS, Senior General Surgeon, Department of General Surgery, Rizgary Teaching Hospital, Erbil-Iraq. MSc. in General Surgery-College of Medicine-Hawler Medical University. PhD student in Lund University. Email: mazin78a@yahoo.com, Phone: 009647504662570, ORCID: 0000-0002-0783-8979

Khadija Mirkhan Ahmed, BSN, MSc in Maternity Nursing, Ministry of Health- DOH Erbil- CPD Department. Email: khadijemirkhan@gmail.com Phone: 00964897995, ORCID: 0009-0007-6006-0506

Nyaz Salahaddin Ahmed, Doctorate of Business Administration, Capacity Building Development Programs, CPD Dep./Erbil-DOH, E.mail: nyazs.aljaf@gmail.com, ORCID:0000-0001-6059-0290

Hamdia Mirkhan Ahmed, Professor, PhD in Maternity Nursing, College of Health Sciences, Hawler Medical University, email: hamdia.ahmed@hmu.edu.krd, Phone: 009647504478625, ORCID: 0000-0002-4952-7108