

## Patients Satisfaction regarding Quality of Nursing Care in the National Center for Diabetes, Endocrinology and Genetics in Amman, 2013

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**Abstract:** It is important for any health system to provide high quality health Nursing services and respond to the needs of service users. The aims of this study is to study patients' satisfaction regarding the quality of nursing care of the center, to identify the main dimensions of patients' satisfaction regarding quality of nursing care. And determine the association between sociodemographic variables and patients' satisfaction regarding quality of the nursing care. This study was conducted during the period from 1<sup>st</sup>December 2013 to 1<sup>st</sup>maye 2014. The design of this study is Descriptive cross-sectional facility based study. The study sample 305 patients, who were selected randomly, all of them actually participated in the study and completed face to face interviewed questionnaire prepared according to Likert scale and data was analyzed by SPSS. Participants were moderately satisfied with the quality of nursing care in the National Center for Diabetes Endocrinology and Genetics. The total mean was (3.09), with higher satisfaction levels in the General impressions (M = 3.83) than in Communication, interaction and reaction (M = 2.57). Patients from both settings were less satisfied with the Accessibility of services (M = 2.89). Age, sex, marital status, level of education, income, and the diagnosis show statistically significant effects on patients' level of satisfaction. On the other hand duration of diabetes, and current occupation did not show statistically significant effects on patients' level of satisfaction. The present study concluded that reforming community health nursing care policies to place more attention on increasing the level of communication and the interpersonal aspects of the provided care could probably increase their satisfaction. And the geographical redistribution of community diabetes health center to enable the patient's easy access to nursing services in all Jordan regions, increase number of home visits, for the patients' nursing team need to improve communication, interaction skills of nursing care staff and in formats. Nursing team needed training for nurses on communication skills and interaction with patients and their families.

## INTRODUCTION

Patient satisfaction receives an increasing focus in research studies, mainly because the health care sector is considered as a competitive sector where consumers' satisfaction is very important. (Graham J,2005., Hills R,2007., Laos CM et al.,2012) Satisfaction level regarding the quality of nursing care has a substantial influence on the satisfaction level with the whole health care setting because nurses are the health care professionals clients deal with more often than others. (Johansson P., 2002 ,Merkouris A.,2004 Laschinger HS,2005., Wagner D, 2009, Agosta LJ, 2010).

Patient satisfaction is the result of an evaluative cognitive reaction along with the associated feelings toward the actual care received and the expected care. (Laos CM et al., 2012., Johansson P, 2002, Laschinger HS,2005 .,Wagner D, 2009., Agosta LJ, 2010., Lee DS, Tu JV, Chong A, Alter DA,2008).

In addition to this cognitive evaluation, demographic variables such as gender, perceived health status, age, and educational level could also affect client satisfaction level, with male, healthier, older, and lower educated clients being more satisfied. ( Johansson P, 2002., Lee DS, 2008., Hekkert KD,2009., Säilä T, et al.,2008., Kuosmanen L et al.,2006 Hiidenhovi H, 2002) Nonetheless, patients' satisfaction has been reported as been positively associated with the quality of care.

(Johansson P, 2002., Leonard KL, 2008., Bryant R., 2002) In fact, client satisfaction is considered one of the most important indicators of the quality of nursing care. (Johansson P, 2002., Coban sikci M. 2010) By measuring patient satisfaction, health care services retrieve vital information.

This can be used to improve the quality of nursing care. Laschinger .(2005)Consequently, higher levels of patient satisfaction will be reached which, in turn, will help patients adhere to their treatment, return to the health care setting, and recommend it to others. (Hills R,2007., Johansson P, 2002., Land LM,2012) Health care services in Jordan are operated by: The Ministry of Health (governmental hospitals and governmental Community Health Centers (CHCs)); the private sector (private hospitals and private clinics); Royal Medical Services (military hospitals); Universities (teaching hospitals); and International and charitable organizations (health centers that include United Nations Relief and Works Agency (UNRWA) CHCs).

In the current study female, lower educated clients had higher levels of satisfaction. Two studies of patient satisfaction with nursing care among a Jordanian population also reported that females had higher levels of satisfaction than males. (Levoy B, 2012., Alasad J, 2003) On the other hand, studies conducted among other populations reported that males were more satisfied than females. (Alhusban MA, 2009., Säilä T et al.,2008)

However, the effect of educational level in this study was consistent with studies conducted among both a Jordanian population and other populations. (Hekkert KD,2009., Alasad J, 2003., Alhusban MA, 2009) This suggested that the effect of gender seemed to change in a different population, while the effect of education seemed to be more universal. To study patients' satisfaction regarding the quality of nursing care of the center.

This study aimed to:

1. To study patients' satisfaction regarding quality of nursing care of center
2. To identify the main dimensions of patients' satisfaction regarding quality of nursing care.
3. To determine the association between sociodemographic variables and patients' satisfaction regarding quality of the nursing.

## METHODOLOGY

### Study design

Descriptive cross-sectional facility based study.

### Study area

The National Center for Diabetes, Endocrinology and Genetics is an independent non-profit organization. The

main goal of NCDEG is providing quality health care, education and training in the fields of diabetes, endocrinology and genetics, in- Amman capital of Jordan.

### Study population

Diabetic patients registered in the center from the all Jordan regions. Exclusion Newly registered patients less than 5 months follow up and, Diabetic children.

### Sample size determination

A total of study population are 50000 patients registered at center for diabetes, according to sample size calculator, 311 patients calculated sample based on calculation at confidence level of 95%

$$n = n \sqrt{1 + n(d)^2} = 50000 \sqrt{1 + 50000(0.02)^2} = 50000 \sqrt{80} = 311$$

### Sampling technique

The study simple random sampling, a stander questionnaire with used, for data collection administer by for data collector, through interview

### Data collection tool

#### The questionnaire consists of two parts

**Part 1:** contain 17 items explore personal information of the patients, disease and service delivery related variables.

**Part 2:** contain 60 items that explore the patient's satisfaction with services provided to them, in 3 domains of satisfaction as: general impression, accessibility of Service, communication, interaction and information.

The 60 items of 72 will develop and respondents are asked to respond a 5-point Likert-type scale ranging from "strongly agree" to "strongly disagree". 4 questions in the questionnaire are open-end questions in order to obtain qualitative data about the conceptions and patients satisfaction with the center services and those questions will focus on likes and dislikes of the services and suggestions to improve the nursing service.

**Data analysis:** The collected questionnaires were firstly revised for the quality and completeness of data at the field level. Then a second check is done before data is entered into the computer database sheet. Data analysis was done using the SPSS ,The satisfaction levels were calculated by adding responses. A higher means (M) indicated a higher satisfaction level. A mean equals or less than (M = 2.33) was considered as an indication of "dissatisfaction", a mean range from (M = 2.34) to (M = 3.66) was considered as an indication of a "moderate satisfaction", and a mean equals or higher than (M = 3.67) was considered as an indication of a "high satisfaction".

**Ethics consideration**

The study was approved by Al Neelain Institution Review Board (IRB). Consent form patients will be taken and participation is voluntary and patients have the right to withdraw at any time. The data were used only for scientific inquiry. An informed consent was obtained from all participants. Privacy of participants was respected and confidentiality was strictly adhered to. The study carries no foreseen harm to participants.

**RESULTS**

**Table (1):** summarizes the distribution of important study variables such as age, sex, marital status, place of living, level of education, current occupation, and income, we notice that: more than half of the sample is male, more than half of diabetic patients of the youth and middle age, also; 69.8 % were married, 42.3% of the middle region that high prevalence of the study population. Level were illiterate, above half of study population not working, and high level of poverty.

**Table1:** Personal data of study participants

Variables	Frequency	Percentage
1-Gender:		
Male	166	54.4
Female	139	45.6
2- Age in years:		
o From 20 - 24	58	19
o From 25 - 34	68	22.3
o From 35 - 44	120	39.3
o Over 45	59	19.3
3- Marital status:		
o Single	45	14.8
o Married	213	69.8
o Divorced	24	7.9
o Widow	23	7.5
4- Place of living (Governorates):		
o South of Jordan	63	20.7
o North of Jordan	113	37
o Middle of Jordan	129	42.3
5- Level of education:		
o Illiterate	53	16.7
o Primary	86	17.4
o Peppering	55	18.0
o Secondary	51	19.7
o University or high	60	28.2
6- Current occupation:		
o Working	136	44.6
o Not working	169	55.4
7- Income (JD):		
o Below 500	137	44.9
o From 500-1500	95	31.1
o From 1501-2500	53	17.4
o Above 2500	20	6.6

Table (2): table 2 represents the general impression of the center. The total mean was (3.83), stander deviation was (0.365). The highest statement,

according to mean is No. (3) The mean equal (4.28), and the lowest statement, according to mean No.(4) the mean equal(3.25).

**Table 2. General impressions**

<b>General impressions:</b>				
<b>No</b>	<b>Items</b>	<b>Mean</b>	<b>Standard deviation</b>	<b>Mean level</b>
1	I have a good experience with the nursing care in this the center.	3.75	0.844	High
2	I received the nursing health care as I expected.	3.56	0.912	Moderate
3	I will continue to receive nursing care in this center.	4.28	0.573	High
4	I am not satisfied with nursing care received in the past year.	3.25	1.028	Moderate
5	There is some areas need improvement in the nursing health service I received.	3.93	0.759	High
6	If a friend or relative need same service, I will recommended this center to him.		0.539	High
7	I feel dissatisfied with some aspects of the nursing health service I received.	3.58	1.011	Moderate
8	The nursing health services were delivered in an appropriate manner.	4.00	0.837	High
	<b>Total</b>	<b>3.83</b>	<b>0.365</b>	<b>High</b>

Table (3): as table 3 represents the Accessibility of services of the center. Follows: The total mean was (2.57), stander deviation was (0.374). The highest

statement, according, to mean is item No. (4) The mean equal (3, 90), and the lowest statement according to mean No. (2) the mean equal (1.47).

**Table3: Accessibility of services**

<b>Accessibility of services</b>		<b>Mean</b>	<b>Standard deviation</b>	<b>Mean level</b>
<b>No</b>	<b>Items</b>			
1	Place of the center suitable for my residential place.	3.16	1.183	Moderate
2	Nursing health team visit me in my house when I cannot attend the center	1.47	0.950	Poor
3	I can easily access to nursing health services when I need it	3.92	0.588	High
4	I think working overload does not affect nursing health service providers in responding to my needs.	3.90	0.595	High
5	Took a lot of effort and time to reach the center.	2.54	0.946	Moderate
6	I believe, diabetic complications are due to the poor the nursing health services I provided at the center.	2.82	1.209	Moderate
	<b>Total</b>	<b>2.57</b>	<b>0.374</b>	<b>Moderate</b>

Table (4): as table 4 represents the Communication, interaction and information on the center. The total mean was (2.89), stander deviation was (0.781). The highest statement

according to mean is item No. (1). The mean equal (4.19), and the lowest statement according to mean No. (13) The mean equal (1.56).

**Table 4: Communication, interaction and information**

Communication, interaction and reaction				
No	Items	Mean	Standard deviation	Mean level
1	All of nursing team respect my needs and take them into account	4.19	0.671	High
2	I feel ignored by nursing team in this center.	1.75	0.783	Poor
3	Nursing team show sympathy to me.	4.21	0.595	High
4	Overall I am satisfied with the way nursing team deal with me.	3.96	0.631	High
5	Have received sufficient information about my condition and the therapeutic plan.	2.36	0.989	Moderate
6	Nursing team give me the impression that my service is their priorities.	3.68	0.804	Moderate
7	Nursing team explain to me information related to my condition in understandable to me.	2.30	1.045	poor
8	Nursing team take into account my level of education and culture when dealing with me.	1.89	0.852	Poor
9	I feel that all patients are treated by one fairly.	3.42	0.874	Moderate
10	I am having difficulty in communicating with nursing team	3.65	0.714	Moderate
11	Nursing team take the initiative to contact me when I miss the center for a long time.	2.75	0.867	Moderate
12	Nursing team contact my family when needed.	1.99	1.031	Poor
13	Nursing team take into account privacy and confidentiality during treatment.	1.56	0.936	Poor
	<b>Total</b>	2.89	0.781	Moderate

Table (5): which show that average mean for all fields' equal (3.15) and mean level of satisfaction was moderate.

**Table 5: Level of patients' satisfaction-dissatisfaction with NCDEG center Amman.**

Dimensions	Mean	Standard deviation	Mean level
General impressions	3.83	0.365	High
Accessibility of services	2.57	0.374	Moderate
Communication, interaction and reaction	2.89	0.718	Moderate
Total	3.09	0.485	Moderate

Table (6): which show that, age, sex, marital status, level of education, income, the diagnosis show statistically significant difference in the patients' level of satisfaction. Duration of diabetes,

current occupation did not show a statistically significant difference in the patients' level of satisfaction.

**Table 6: Hypotheses results**

Variables	T-Test	Sig value
Sex	2.2	0.00
Current occupation	1.3	0.25
Variables	ANOVA Test	Sig value
Age	0.71	0.01
Marital status	3.1	0.01
Place of living	3.5	0.04
Level of education	0.68	0.00
Income (JD)	9.2	0.04
Type of diabetes	3.1	0.01
Duration of diabetes	3.7	0.07

\* At ( $\alpha \leq 0.05$ )

## DISCUSSION

Patients' satisfaction is one of the most important determinants of the quality of nursing care (Johansson P, 2002.,Leonard KL,2008 .,Coban sikci M, 2010). The current study revealed that patients were moderately satisfied which indicated providing a relatively acceptable nursing care quality. Patients reported higher levels of satisfaction in the general impression dimension than in the other two dimensions of the SSCN scale (Accessibility of care and Communication, interaction and information dimensions). This finding implied that nurses' high technical skills in the selected NCDEG were unmatched either by their interpersonal skills or by the level of coordinating the provided services.

This finding was consistent with other satisfaction studies' findings, which reported that being more responsive to patients' needs and improving staff interaction with them would noticeably increase their satisfaction levels (Laos CM et al., 2012 LevoyB,2012). The similar demographic distribution of sample (NCDEG) suggested that the higher satisfaction levels in the NCDEG, general impression dimension were mainly related to providing a higher

quality of nursing care. A review of the health care policies in the NCDEG. Two major policy differences were identified. Firstly, the NCDEG offered low-cost health care services. This probably increased patient satisfaction levels in the NCDEG, since the affordability of services has a positive effect on patient satisfaction. Land LM. (2012), Secondly; the NCDEG not used a family health team (FHT) approach for the delivery of their health care services.

The FHT approach is a method developed by the UNRWA medical services to deliver health care services to the whole family by a health care team that consisted of a doctor, one or more nurses, and a midwife. Coban sikci M (2010) using such an approach could probably have increased their client satisfaction levels, especially in the coordination of services dimension. In the current study female, lower educated clients had higher levels of satisfaction. Two studies of patient satisfaction with nursing care among a Jordanian population also reported that females had higher levels of satisfaction than males. (Alasad J, 2003 ,Alhusban MA, 2009) On the other hand, studies conducted among other populations reported that males were more satisfied than females (Johansson P, 2002,

Säilä T et al.,2008). However, the effect of educational level in this study was consistent with studies conducted among both a Jordanian population and other populations. (Hekkert KD,2009 Alasad J, 2003, Alhusban MA, 2009). This suggested that the effect of gender seemed to change in a different population, while the effect of education seemed to be more universal. In relation to age, younger patients were more satisfied in this study. This finding contradicted the findings of the two Jordanian studies which reported that age did not affect patient satisfaction levels. (Alasad J, 2003 Alhusban MA, 2009)

Moreover; studies that were conducted in different populations reported that older clients were more satisfied than younger patients. (Johansson P, 2002 ,Hekkert KD,2009., Säilä T et al.,2008) In this current study, no effect of perceived health status on patient satisfaction level was reported. This contradicted with another satisfaction study's finding which reported that healthier clients tend to be more satisfied. Hekkert KD(2009). This lack of consensus in Relation to age and perceived health status effects on patients' satisfaction levels suggested that these two variables were not as important as gender and educational level.

## CONCLUSION

The patients were moderately satisfied with the quality of nursing care delivered in the NCDEG. Policies in community health organizations should place more attention in coordinating their services, especially by allowing their clients to be more actively involved in the planning of their own care. Also, staff development programs in community health organization should focus on increasing the ability of nurses to communicate more effectively with patients. Less educated patients tend to have higher satisfaction levels and the effect of gender seems to differ among different populations. And the geographical redistribution of community diabetes health center to enable the patient's easy access to nursing services in all Jordan regions, increase number of home visits.

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