Assessment of life-skill for patient adults with diabetes mellitus type II

تقييم المهارات الحياتية لمرضى السكري البالغين من النوع الثاني

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Abstract

Objective: Study aims are to identify the type2 diabetes clients' life skills, and find out the relationship between variables which are (Age, gender, educational level, duration of DM diagnosis, and monthly income) with type 2 diabetes clients 'life skills.

Methodology: Quantitative design descriptive study was carried out through the present investigation from 2\ January\ 2014to 2\ July\ 2014 in order to achieve the objectives of the present study. A non-probability (purposive) sample, (200) cases which consists of clients who were attending An Nasiriyha Diabetic Center. The data were collected by utilization of the study instruments and employment of scheduled personal interview as means data collection. The data collection process was performed from 22/ July / 2014to 2 / November / 2014. A questionnaire was designed constructed by the researcher to measure the variable. Such a construction was employed through the review of literature and related studies. The questionnaire consisted of seven [parts] which are demographical, and 6 diabetics life skills

indicators. The reliability of the questionnaire was determined through a pilot study and the validity through 14 a panel of experts. The data were analyzed through the application of descriptive statistic frequency, percentage, and the application of inferential statistical procedures, which include Pearson correlation coefficient, and contingency coefficient.

Results: Highest percent of the study samples (37.5) were (50-59) years old. with the mean age (52±7.1) years, (72%) 0f them are without of type 2 diabetes client' life skills, were married male, with low educational level. group's duration of type 2 DM diagnosis was (1-5) years. insufficient monthly income, unemployed, overweight. they had information from their physician, and diagnosed indecently measuring blood glucose level. There were significant association between type 2 diabetes clients' life skills and (age, educational level, monthly income). And there were no significant association with another variable.

Recommendations: The researcher recommended that newly diagnose diabetic patients should be improving life skills by involved in educational program & supply by booklet which include typ2 diabetes clients' life skills and supported by videotapes to enforce their practices with nurse supervision during visit them to the center .and instructed to periodic blood glucose test, with control their blood sugar and body weight to avoid complications. Nurse in addition to the physician, have an important role to playing the education, counseling and skills building of diabetic patients.

Keywords: Determination, diabetes type 2, clients, life skills.

الخلاصة

الهدف: تهدف الدراسة إلى تحديد المهارات الحياتية لمرضى السكري النوع الثاني الذين يراجعون مركز السكري والغدد الصم في الناصرية ومعرفة العلاقة بين بعض المتغيرات (العمر، الجنس، المستوى التعليمي، الدخل الشهري ومدة الإصابة بالسكري) مع المهارات الحياتية لمرضى السكري النوع الثاني .

المنهجية: دراسة كميه وصفية أجريت في مركز السكري والغدد الصم في الناصرية للفترة من الثاني من كانون الثاني 2014 ولغاية الثاني من تموز2014 .تم اختيار عينة غرضيه غير الاحتمالية (200) مريض من الذين يراجعون مركز السكري في مدينة الناصرية جمعت المعلومات من خلال استخدام استبانة مصممة ومكونة من سبعة أجزاء، الجزء الاول يتضمن المعلومات الديموغرافية والجزء الثاني يتكون من ست مهارات حياتية للسكري النوع الثاني، صممت تملئ بطريقة المقابلة الشخصية وبدأت جمع معلومات العينة من الثاني والعشرون من حزيران إلى الثاني من تشرين الثاني 2014 .تم تحديد الثبات للاستبانة من خلال الدراسة الاستطلاعية وحددت مصداقيتها بواسطة 14 من الخبراء. تم تحليل البيانات من خلال استخدام الإحصاء الوصفي الذي تضمن التكرارات والنسب المئوية والوسط الحسابي، والوسط الحسابي الموزون وكذلك استخدام الإحصاء لاستبياني الذي شمل معامل الارتباط بيرسون، التجانس.

النتائج: وأظهرت الدراسة أن أعلى نسبه في عينة الدراسة (37.5) كَانتْ بفئة عمريه (50-59) سنه، الوسط الحسابي للعمر (52±7.1 72%)، بدون مهارات حياتيه للسكري النوع الثاني ومعظمهم ذكور، متزوجين، ذات مستوى تعليمي منخفضُ، مدِّة تشخيصَ السكري من مجموعة (1-5) سَنَة، ذات دخلُ شهريُ غير كافيُ، عاطلُين عن العمل، زائدي الوزن. لديهم معلومات مِنْ الطبيب والأغلبية منهم شخصوا بِالصُّدفَة عندما قاسوا مستوى السكر في الدم، هناك علاقة هامّة بين المهارات الحياتية للسكري النوع الثاني و(العُمر، المستوى التعليمي والدخل الشهري)، وليس هناك علاقة هامه مع المتغيرات الأخرى.

التوصيات: أوصىَ الباحثَ بانة يَجِبُ أَنْ يُنْشْغَلَ مرضى السكري حديثي التشخيص بتحسين المهارات الحياتية في البرنامج التعليمي ويُجهِّزُ بالكُتَيبِ الذي يَتضمّنُ المعلومات المرضية والمهارات الحياتية للسكري النوع الثاني، مدعومة بأشرطة فيديو لتقوية أداء مهاراتهم والإشراف على ممارساتِ المهارات أثناء زيارتهم للمركز من قبل الممرضة مع الفحص دوريِ لسُكّرِ الدمِّ للسيطرة عليه وعلى

وزن أجسامهم ليتفادوا المضاعفات الثانوية. الممرضة أضافه الى الطبيب لها دور بالتعليم والاستشارة وبناء المهارات الحياتية لمرضى السكري.

Introduction and importance of the study:

Diabetes Mellitus (DM) is a group of metabolic diseases characterized by hyperglycemia resulting from defects in insulin secretion, action, or both. The chronic hyperglycemia is associated with Long-term damage, dysfunction, and failure of various organs especially the eyes, kidneys, nerves, heart, and blood vessels, DM is a much talked about subject these days. It is thought to be one of growing diseases in the world to describe it, as an epidemic disease [1].

Life skills are Practices used in every day to maintain healthy self-skills for patients with DM which allow them to operate independently at home, and help them to control blood glucose level, it helps clients to exposed to various skills that will be face the challenges in future. To restore, prevent, treat, delayed, and decrease complications [2].

The life skills help clients to become exposed to various skills that they will need to face as challenges in future [3]. Daily living activities cover many aspects at home that allow patients to be independent and how to live near to healthy life [4]. The diabetic center must provide the clients the basic information and survival skills to understand diabetes [5]. Clinical Specialist Nurse provides skills especially diabetes clients who have been newly diagnosed when they attend diabetic center [6].

It is requires skills with knowledge in using evidence-based advances in treatment and self-management skills [8]. By glycemic control in patients with diabetes type2, these benefits have been demonstrated in multiple large trials & available. with self-management skills can minimize risk of complications through blood glucose level and lipids target which are significant of DM patients type 2 to improves and engorgement of patient's performance [8].

Objective of the study:

1. Determine of type 2 diabetes clients' life skills.

2. Find out the relationship between (age, gender, educational level, duration of DM diagnosis, and monthly income) in relationship to type 2 diabetes clients' life skills.

Methodology: This chapter includes

3-1: Design of the study: A descriptive study was carried out. The present study took place from 2/January /2014 to 2 /July/2014 in order to achieve the objectives of the present study.

3-2: Administrative arrangements: Written official permission was obtained from the Ministry of Planning and Ministry of Health (Appendix A).

3-3: Setting of the study: The study was carried out in the An Nasiriyha Diabetic and Endocrinology Center.

3-4: Sample of the study: A non-probability purposive sample of 200 cases which consists of clients who were attending An Nasiriyha Diabetic and Endocrinology Center. Including 118 men and 82 women with the mean of age (19.5, ± 9.25) year.

Inclusion Criteria:

 1: Men and women who were diagnosed with type 2 diabetes.

 2: Ages between 20 – 69 years old.

Exclusion Criteria:

 3: systemic illnesses.

 4: psychiatric illnesses.

 5: Duration of DM less than one year.

 6: women with diabetic during pregnancy.

3-5: The study instrument: A questionnaire was designed and constructed by the researcher to measure the study variables. Such a construction was

employed through the review of literature and related studies. The questionnaire consisted of seven parts which are demographic and diabetic six life skills indicators (Appendix B).

Part I: Demographic information: **(6 items)** age, gender, marital status, educational level, occupation, income in month was calculated as Socio Economic Status Scale (SES).

Clinical information: (4 items) how diabetes was diagnosed, duration of diabetes, body mass index, source of diabetes knowledge. The total (10 items), the next 6 diabetes   life skills indicators, only 4domane was proceeded with a yes or no question. If the answer was yes; more specific questions were asked. Response options for the 88 questions were: Yes=2 No=1.

Part II: Indicators of diabetes life skills: Treatment covered 2 domains:

- Oral anti-hyperglycemia drugs (7 items).
- Insulin therapy (15 items).

Part III: Life skills indicators for diabetes consisted of (4) domains

• Monitoring blood glucose level (3 items).

• Monitoring glucose urea (5 items).

• Hyperglycemia (5 items).

• Hypoglycemia (6 items).

Part IV: Dietary patterns (11 items).

Part V: Exercise and Physical Activity (8 items).

Part VI: Health habits (6 items).

• Foot care (14 items).

Part VII: Follow-up (8 item).

The questionnaire items were rated and scored and rated on a scale of close-ended responses Yes=2 No=1, where the lowest score represents a

deficit of diabetes life skills while the highest score represents having diabetes life skills, for the final analysis all points are summed up.

- The maximum score is from (summation number of items X2)

- The minimum point is from (summation number of item X1)

- While the cut point =   Maximum Score + Minimum Score

$$\overline{\qquad\qquad\qquad}$$

2

- Maximum score to cut point = have diabetes life skills.

- Minimum score to cut point = deficit diabetes life skills.

The body mass index (BMI): Is calculated by dividing the weight in kilograms by the square of the height in meters.

BMI = Body weight in kilogram / Height in (meter) and determined according to (BMI) classifications.

≤ 18.5 kg / m^2 under weight

$18.5 - 24.9$ kg / m^2 normal

$25.0 - 29.9$ kg / m^2 over weight.

$30.0 - 39.9$ kg / m^2 obese.

≥ 40.0 kg / m^2 morbid obese (Grodner, et al., 2000).

Socio- Economic-Status scale SES=121-150 High score equal sufficient. SES=90-120 Middle score equal barely sufficient. SES=89 and less low score equal insufficient (Appendix D) (Kumare, et al.,2005).

3-6: Validity of the instruments:

The content validity for the earlier constructed instrument was determined through a panel of experts of investigates the content of the questionnaire for clarity and adequacy in order to achieve the objectives of the present study. A preliminary questionnaire was designed and presented to

14 experts for determination of its face validity, these experts were four faculty members from the College of Medicine of University of Thi Qar, seven faculty members from College of Nursing University of Baghdad, one faculty member from Baghdad Institute of Technical Education, one faculty member from Al Haboby General Hospital in An Nasiriyha Health Director, and one faculty member from the College of Education University of Thi Qar.

The mean of experience for panel was (19, ± 9.25) years, and expert's agreement was 91% on questionnaire by using spilt half method. The researcher divided the number of experts answer to seven odd, and seven even that represent X, Y and application of correlation coefficient to achieve agreement with the questionnaire, that was appropriately designed and constructed except for modifications which were recommended according to the understanding of clients which were put in practice, such as items 3, 4, 4, 5, 6. In indicator 2.

- Item 9 omitted the examine of EEG in indicator no 6.
- Item 1, 2 omitted from special life skills concerned how the clients could identify the signs and symptoms of hyperglycemia and hypoglycemia.
- Recommendations about words printing mistakes to correct them.
- Special life skills concerned blood glucose, glycosuria monitoring were moved from indicator 2 to3.

3-7: Pilot study: A purposive sample of 20 men and women with type 2 diabetes who attended An Nasiriyha Diabetic and Endocrinology Center. The pilot study was conducted from 30 / Jun / 2014 to 21 /July / 2014. Furthermore, the pilot study had attempted to reach the following objectives:

1. To confirm the clarity of the instruments structure. To determine the required understanding and to modify the questions accordingly.
2. To estimate the average time consumed for data collection of each client.

3. To enhance the validity of the questionnaire.

3-8: Reliability of the questionnaire:

Test-retest reliability was determined through a computation of Pearson's correlation for scale coefficients for 102 items and domains was

r = 0.90.

r =0.91 for special life skills concerning treatment questionnaire.

r =0.82 for special life skills concerning diabetes mellitus disease questionnaire.

r = 0.89 for special life skills concerning dietary pattern questionnaire.

r = 0.92 special diabetes life skill concerning physical activity and exercise questionnaire.

r = 0.96 for special diabetes life skills concerning follow health habits and foot care questionnaire = 0.91 for special diabetes life skills concerning follow up questionnaire.

$$r = \frac{n\sum XY - (\sum X)(\sum Y)}{\sqrt{[n\sum X^2 - (\sum X)^2][n\sum Y^2 - (\sum Y)^2]}}$$

r = the correlation coefficient of variables X and Y.

n = number of cases.

x = an individual score variable X.

x=an individual score for variable Y.

$\sum$ = the Summation of

Test – retest Table (1)

Score	Mean	S.D	Alpha correlation
Test	111.6	7.2	0.90
Re-test	112.7	7.1	

3-9: Data Collection: The data were collected in two ways for the present study through the utilization of the study instruments and employment of a scheduled personal interview as a means for data collection. The data collection process was performed from 3o/July / 2014 to 2 / November / 2014.

1. Interviews by the use of the questionnaire took approximately arrange 15 to 20 minutes for each patient.

2. The research measured height and weight for each patient and calculated BMI for classification.

3-10: Data Management and Analysis:

A: statistical data Descriptive analysis: Include.

- **Frequency**= (F)

$$Frequency = \frac{Percentage \%}{Sample\ size} \times 100$$

$$\textbf{- Mean } X = \frac{\sum Fixi}{\sum Fi} \text{ for documented data}$$

$$\textbf{- Mean } X = \frac{\sum Xi}{\sum Fi} \text{ for non-documented data}$$

$$\textbf{-Mean scores} = \frac{2\times yes + 1\times no}{Number\ of\ the\ sample}$$

$$-SD = \frac{\sqrt{\sum(Xi - X)^2}}{N - 1}$$

A Mean scores of (< 1.5) was considered low, ($1.5-< 2.5$) was considered Moderate, and (≥ 2.5) was considered high mean scores (Polit and Hungler, 1999).

B: Inferential statistical data analysis: Such analysis was performed through the application of the following procedure:

1. Person correlation coefficient was employed for determination of instrument of reliability.

An index that summaries the degree of the relationship between two variables, correlation confident typically range from $+ 1.00$ (for perfect relationship) (through 0.0 for no relationship) to$- 1.00$ (for perfect inverse relationships) (Polit and Hungler, 1999). Person correlation coefficient: it was used to estimate the scale (test-retest) reliability through the application of the following formula:

$$r = \frac{n\sum xy - (\sum x) \,|\, (\sum y)}{\sqrt{[n\sum x^2 - (\sum x)^2]\,[n\sum y^2 - (\sum y)^2]}}$$

(Polit and Hungler, 1999)

 2. **Contingency table structure:** It was used in order to accept or reject the statistical hypothesis. It was depending on the distribution of the observed frequencies among different levels of the two factors which had been used or included. Whichever that got frequencies in each cell recorded the individuals responded to that recorded specific level of response on the measurement scale by the 1st factor and with the level of response of the measurement scale by the 2nd of the same cell. Confidence Level of the

correlation-ships of the contingency coefficients proposed within not less than 95% interval should be meaningful.

The formula for Contingency Coefficient is:

$$C.C = \sqrt{\chi^2 \big/ (\chi^2 + N)}$$

(Al Nageeb, 1992; (Stockburger, 2000).

Contingency coefficient: It was applied for the confirmation of the association between demographic characteristics of age, gender, educational level, duration of DM diagnosis, and monthly income, with type 2 diabetes clients' life skills which were include. Special life skills concerning treatment either pills or insulin, diabetes mellitus control which were consisted blood glucose monitor, glucose urea monitor, hyperglycemia and hyper-glycemic controlling, dietary pattern, physical activity and exercise, follow health habits, foot care, and follow- up.

Results and discussion of the Study:

Table 1: Demographic characteristics of type 2 diabetes clients' life skills.

Age(years)	Frequency	Percent %
20 – 29 years	**18**	**9.0**
30 – 39 years	**24**	**12.0**
40 – 49 years	**38**	**19.0**
50 – 59years	**75**	**37.5**
60 – 69years	**45**	**22.5**
Gender	Frequency	Percent %
Men	**118**	**59.0**
Women	**82**	**41.0**

Marital status.	Frequency	Percent %
Single	33	16.5
Married	144	72.0
Widowed	6	3.0
Divorce	17	8.5
Educational level.	Frequency	Percent %
Illiterate	79	39.5
Read and write	20	10.0
Primary school graduate	30	15.0
Intermediate school graduate	18	9.0
Secondary school graduate	20	10.0
High institute graduate.	18	9.0
College graduate and above	15	7.5
Duration of diabetes mellitus diagnosis.	Frequency	Percent %
1 – 5 years	88	44.0
6 – 10 years	62	31.0
11 years and above	50	25.0
Monthly income.	Frequency	Percent %
Sufficient	4	2.0
Barely sufficient	43	21.5
Insufficient	153	76.5
Occupation.	Frequency	Percent %
Employee	66	33.0

Unemployed	**76**	**38.0**
House wife	**58**	**29.0**
Body mass index (BMI).	Frequency	Percent %
Under weight (Less than ≤ 18.5 kg/m^2	**2**	**1.0**
Normal weight (18.5 – 24.9) kg/m^2	**61**	**30.5**
Over weight (25.0 – 29.9) kg/m^2	**99**	**49.5**
Obese (30.0 – 39.9) kg/m^2	**38**	**19.0**
Have knowledge about diabetes mellitus.	Frequency	Percent %
Yes	**182**	**91.0**
No	**18**	**9.0**
If the answer yes		
What is the source of information		
Physician	**148**	**74.0**
Nurses	**24**	**12.0**
Affected patients	**5**	**2.5**
Media	**2**	**1.0**
External study	**2**	**1.0**
Network	**1**	**0.5**
Total	**182**	**91.0**
Non applicable	**18**	**9.0**
How diabetes mellitus has been diagnosed	**Frequency**	**Percent %**
Attend physician for any disease	**19**	**9.5**
Polyuria and mouth dryness	**47**	**23.5**

Blurred vision	**48**	**24.0**
Impotency	**5**	**2.5**
Itching	**4**	**2.0**
Delayed wound healing	**2**	**1.0**
indecently measuring blood glucose level	**75**	**37.5**
Total	**200**	**200**

The distribution of the matched demographic characteristics out of this table indicates that the majority (37.5 %) of groups are (50 –59) years, (59.0%) are male, (72.0%) are married, (39.5%) of the groups illiterate, (44.0 %) groups of duration of DM type2 diagnosis at (1–5) years, (76.5%) are insufficient monthly income, (38.0%) are unemployed, (49.5%). of the group are overweight, (91.0%) of them have information about DM, (74.0%) are the source of information from the physician, (37.5%) of them are diagnosed indecently when they measuring blood glucose level.

Table 2: Total type 2 diabetes clients ' life skills.

Clients count	Without life skills	With life skills	Total
Count	**144**	**56**	**200**
% of total	**72.0%**	**28.0%**	**100.0%**

This table indicates that (72.0%) of the study sample (144) clients are without diabetes type 2 clients' life skills.

furthermore (28.0%) of the study sample (56) clients are with diabetes type 2 clients' life skills.

Table (3): Mean scores for (6) domains of type 2 diabetes clients' life skills.

No.	Domains	Yes 2	%	No.1	%	M.S	severity
1.	Treatment .	875	437.5	1069	534.5	1.45	L
2.	Diabetes mellitus control.	1238	619.0	2244	1122.0	1.35	L
3.	Dietary pattern.	1024	512.0	1176	588.0	1.46	L
4.	Exercise, and physical activity.	619	309.5	981	490.5	1.38	L
5.	Follow health habits and foot care.	1736	868.0	2264	1132.0	1.43	L
6.	Follow-up.	594	297.0	1006	503.0	1.37	L
	Total	6086	3043.0	8740	4370.0	1.40	L

This table indicates that the mean scores are low for the 6 indicators.

Table 4: The correlation ship of the contingency coefficient and significant level responding with or without type 2 diabetes clients' life skills with age.

Total diabetes life skills / Age Years		Without life skills	With life skills	Total
20 – 29 years	F	11	7	18
	%	5.5	3.5	9.0
30 – 39 years	F	13	11	24
	%	6.5	5.5	12.0

40 – 49 years	F	26	12	38
	%	13.0	6.0	19.0
50 – 59 years	F	54	21	75
	%	27.0	10.5	37.5
60 – 69 years	F	40	5	45
	%	20.0	2.5	22.5
Total	F	144	56	200
	%	72.0	28.0	100.0
Contingency level = 0.978 C.C test=0.23 P- value=0.022 C. S= S				

CC. = Contingency coefficient. S = significant (P – value < 0.05)

This table indicates that (27.0%) of the study sample within age group (50–59) years old without diabetes type 2 clients' life skills. Furthermore, that there is a significant relationship between type 2 diabetes clients' life skills with age.

Table 5: The correlation ships of the contingency coefficient and significant level responding with or without type 2 diabetes clients 'life skills with educational level.

Total diabetes life skills / Educational level		Without life skills	With life skills	Total
Illiterate	F	69	10	79
	%	34.5	5.0	39.5
Read and write	F	18	2	20
	%	9.0	1.0	10.0
Primary school	F	24	6	30

graduate	%	12.0	3.0	15.0
Intermediate school graduate	F	13	5	18
	%	6.5	2.5	9.0
Secondary School graduate	F	11	9	20
	%	5.5	4.5	10.0
High institute graduate	F	4	14	18
	%	2.0	7.0	9.0
College graduate and above	F	5	10	15
	%	2.5	5.0	7.5
Total	F	144	56	200
	%	72.0	28.0	100.0
Confidence level = 1.000 C. C Test=0.44 P- value = 0.000. C.S= S				

C.C = Contingency coefficient.   S = Significant (P-value < 0.05).

This table indicates that (34.5%) of the study sample do not read and write without diabetes type 2 clients' life skills Furthermore that there is a significant relationship between educational level with total diabetes type 2 clients' life skills.

Table 6: The correlation ships of the contingency coefficient and significant level respond with or without type 2 diabetes clients ' life skills with monthly income.

Total diabetes life skills / Monthly in come		Without life skills	With life skills	Total
Sufficient	F	1	3	4
	%	0.5	1.5	2.0
Barley sufficient	F	22	21	43
	%	11.0	10.5	21.5

Insufficient	F	121	32	153
	%	60.5	16.0	76.5
Total	F	144	56	200
	%	72.0	28.0	100.0
confidence level = 1.000. C. C Test=0.283. P- value=0.000. C.S= S				

C.C = Contingency coefficient. S = significant (P – value < 0.05)

This table indicates that (60.5%) of the study sample within insufficient monthly income without diabetes life skills. Furthermore, that there is a significant relationship between total type 2 diabetes clients' life skills with monthly income.

Discussion: This study content of three parts which include:

Part I:

Discussion of (200) type 2 diabetes client's demographic characteristics distribution.

Table 1: Indicated that the finding of the present study revealed that the age range between (20–69) years and (37.5%) of the group are (50–59) years, the mean of age is (52) years. This finding is supported by Boon et al [9]. Whose reported that the type 2 DM is principally a disease of the middle aged and elderly. In the U. K, it affected (10%) of population over 65 years, and over (70 %) of all cases of DM occur after of 50 years. And similar to the result, of study done by Al Mansour [10] stated that the mean age was higher at (52) years old among clients who attended the out-patient clinic in Al Faiha hospital in Basrah in both sex. Related to gender (59.0%) of study sample are males. This results are similar to result of study done by Al Mansour [10]. While the option views of the researcher are the male & female have an equal chance to expose to diabetic disease. Concerning to marital status, (72.0%) of

study sample were married. This finding is agree with study done by Al Suffar [11]. Stated that (83%) of the study sample are married. With regard to the level of education of type 2 diabetic clients, it is demonstrated that (39.5%) of the study sample.This result was supported by results obtain from study done by Musaiger & Al Mannai[12].stated that the educational level among Bahraini adults with type 2 DM was Illiterate .

   Relative duration since DM diagn-osing, (44%) of the study sample are in duration of (1−5) years, these results was supported results obtain from study carried out by Akbar [13]. stated that the mean of diabetes type 2 client's duration averaged (9.8) years.

Regarding income (76.5%) is insufficient and (38 %) are unemployed. This result is supported with study done by Maxwell et al [14] stated that more than (44%) of their study sample were retired and significantly associated with diabetes life skills.

   Related to BMI (49.5%) of the study are overweight. This result is supported with   results obtain from study done by Al Mansour [10] stated that type 2 DM is strongly associated with obesity; more than (80%) of adults are overweight or obese.

   Relative to knowledge about DM disease, (91%) of the study sample have knowledge, most of them (74%) the sources of information from their physicians and (12%) from nurses about diabetes life skills. This result agrees with study done by Maxwell [14]. Reported that appropriate patient's knowledge from health care provider team for self-care skills are the key to achieving therapeutic goals in ambulatory care. The researcher thought that the nurse plays inadequate role in giving information diabetes patient against to my literature which emphases on the role of nurse to educate the patient with chronic illness about his or her disease.

Relative to how DM has been diagnosed (37%) of the study sample are diagnosed incidentally when measuring BG level. This result is supported with results obtain from study done by ADA [15]. Stated that for most patients approximately (75%), type 2 DM is detected incidentally (e.g. when routine laboratory test or ophthalmoscope examination are performed. The researcher that the diagnoses of patient with type 2 DM was discover incidentally during BG monitoring or when the patient suffer from complications of the disease.

Table 2: Indicates that (72%) of the total of (200) type 2 diabetes clients are without life skills. This result disagrees with study done by NCCDPHP [16]. Reported that the percentage of patients who get recommended preventive services and DM life skills, were increased from (46% - 87%) for A1C test, from (19% - 43%) for eye exams, from (26% - 56%), for foot exam, from (36% - 88%) for follow-up and from BMI calculated increased from (59% - 73%).

Part II:

Discussion of (200) type 2 diabetes client's life skills indicators.

Table 3: This table indicates that the mean scores are low for the 6 indicators, and the total. In regard to item (1) concerning treatment are low mean scores. This results disagree with results obtain from study carried out by Vermerier et al [17] published a Cochrane review of (21 RCT) assessed the intervention for self-care skills to treatment with anti-diabetic drugs and with insulin therapy in people with diabetes type 2 showed significant reduction in Hb_{A1C} for intervention group more than control group.

In regard to item (2) concerning DM control as general are low mean of scores. This finding disagree with results obtain from study done by ADA [18]. stated that several studies including United Kingdom prospective diabetes study (UKPDS) with diabetes type 2 have shown significant prevention or delayed of long-term complications related to self-management skills towards

hypoglycemia and hyperglycemia as a result of tight control and monitor of blood sugar.

In regard to item (3) concerning dietary pattern are low mean scores. This finding disagree with results obtain from study done by Boon et al [9]. stated that the diet and lifestyle advice alone or of three methods of treatment are available for diabetic patients, approximately 50% of new cases of type 2 DM can be controlled adequately by diet alone.

In regard to item (4) concerning exercise and physical activity are low mean scores. This result disagrees with results obtain from study carried out by Norris et al [19]. Stated that when increased physical activities were association with improved glycemic control.

In regard to item (5) concerning follow health habits and foot care are low mean scores. This result disagrees with results obtain from study done by Colagiuri et al [20]. stated that four of 6 studies was assessed self-care skills about health habits and foot care includes, hand washing, avoid drinking, cessation tobacco, applying cream, inspecting feet, cutting toenails etc. showed a significant improvement of BG level at 6 – 18 months after education.

In regard to item (6) concerning follow-up are low mean scores. This finding disagree with results obtain from study done by Colagiuniri et al [20]. Stated that several studies showed that regular reinforcement of intervention seemed to improved knowledge levels at variable length of diabetes follow-up, and examined the effect of intervention showed a significant improvement in BG control toward follow-up.

Part III:

Include the correlationships of the contingency coefficient and significant level of demographical characteristics.

Table 4: Indicates that there is a significant relationship between age and type 2 diabetes life skills (C.C = 0.233, C.L = 0.978). This results agree with results obtain from study done by Baquedano et al [21]. stated that self-care skills ability in relation to age group, the following presented good self-care skills ability 25 (10%) between (50–59) years of age, while (0.4%) between (30–39) years of age.

Table 5: Indicates that there is a significant relationship between educational level and type 2 diabetes clients' life skills (C.C = 0.455, C.L = 1.000). The majority (34.5%) of the study sample are illiterate without type 2 diabetes life skills. This results were similar to results obtain from study done by Baquedano et al [21] indicated that there is a significant relationship between level of education and self-care skills. The researcher thought that level of education effect of reduce practice of multiple self-care skills among less educational level patients.

Table 6: Indicates that there is a significant relationship between monthly income and type 2 diabetes clients' life   skills (C.C = 0.283 , C.L = 1.000), furthermore indicates that (60.5%) of the study sample with insufficient monthly income without diabetes life skills .This results similar to results obtain from study done by Arleen et al[22].stated that a high income is the highest complications free rate.(54.1%) and lowest multiple complications (8.1%) three or more complications compared to those in the lowest socioeconomic status (SES) group (22 %) no complications, (26 %) three or more complications.And no significant association with another variable

Recommendation:

The researcher recommended that newly diagnose diabetic patients should be improving life skills by involved in educational program & supply by booklet which include typ2 diabetes clients' life skills and supported by

videotapes to enforce their practices with nurse supervision during visit them to the center .and instructed to periodic blood glucose test, with control their blood sugar and body weight to avoid complications. Nurse in addition to the physician, have an important role to playing the education, counseling and skills building of diabetic patients.

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