Determination of Diabetes type 2 Clients' Self-Management Skills toward Dietary Pattern

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المستخلص

الهدف: تهدف الدراسة إلى تحديد مهارات التدابير الذاتية لمرضى السكري النوع الثاني المتعلقة بالنظام الغذائي ومعرفة العلاقة بين بعض المتغيرات(العمر،الجنس ،المستوى التعليمي،الدخل الشهري،و مدة الاصابه بالسكري) مع مهارات التدابير العلاجية الذاتية المتعلقة بالنظام الغذائي

ألمنهجيه: دراسة وصفية أجريت في مركز السكري والغدد الصم في الناصرية للمدة من الثاني كانون الثاني ٢٠١١ولغاية الثاني من تشرين الأول ٢٠١١ .تم اختيار عينة غرضيه غير الاحتمالية (٢٠٠) مريض من الذين يراجعون مركز السكري في مدينة الناصرية يتضمن 118رجل و٨٢امراه. جمعت المعلومات من خلال استخدام استبانه مصممة ومكونة من جزئيين ،الجزءالاول يتضمن المعلومات الديموغرافية والجزء الثاني يتكون من المهارات الذاتية للتدابير المتعلقة بالنظام الغذائي صممت تملئ بطريقة المقابلة .تم تحديد الثبات للاستبانه من خلال الدراسة الاستطلاعية وحددت مصداقيتها من الخبراء.تم تحليل البيانات من خلال استخدام الإحصاء الوصفي الذي تضمن التكرارات والنسب المئوية وكذلك استخدام الإحصاء ألاستبياني الذي شمل معامل الارتباط بيرسون والتجانس

النتائج: وأظهرت الدراسة أن أعلى نسبه في عينة الدراسة (٣٧,٥) كَانتْ بفئة عمريه (٥٠-٥٩) سنه، الوسط الحسابي للعمر (٥٢)سنه، الغالبين منهم ٧٢% بدون مهارات ذاتية للتدابير العلاجية المتعلقة بالنظام الغذائي للسكري النوع الثاني ومعظمهم ذكور ، ذات مستوى تعليمي منخفضُ، مدّةِ تشخيصَ السكري (١-٥) سَنَوات ، ذات دخلُ شهريُ غير كافيُ ،عاطلُين عن العمل ، زائد ي الوزن. لديهم معلومات مِنْ الطبيبِ،و الأغلبية منهم شخصوا بِالصُّدفَة عندما يَقِيسونَ مستوى السكر في الدم، هناك علاقة هامّة بين المهارات ا لذاتية للتدابير العلاجية المتعلقة بالنظام الغذائي للسكري النوع الثاني و(، العُمر ,المستوى التعليمي،و الدخل الشهري)، وليس هناك علاقة هامه مع المتغيرات الأخرى.

التوصيات: أوصىَ الباحثَ يَجِبُ أَنْ يُشْملَ مرضى السكري حديثي التشخيص في البرنامجِ التعليمي ويزودُ بالكُتَيبِ الذي يَتضمّنُ المعلومات المرضية و التدابير الذاتية المتعلقة بالنظام الغذائي، مدعومة بأشرطة فيديو لتقوية أداء مهاراتهم بإشراف الممرضة أثناء زيارتهم لمركز السكري وتوصيتهم بتحسين ا لمهارات الذاتية للتدابير المتعلقة بالنظام الغذائي للسيطرة على مستوى السكر في الدم و وزن الجسم لتجنب المضاعفات الطويلة الأمد.

Abstract

Objective: study aims to identify the diabetes type2 clients self management skills toward dietary pattern , and find out the relationship between variables which are (Age, gender, educational level, duration of DM diagnosis, and monthly income) with diabetes type 2 clients self management skills toward dietary pattern

Methodology: descriptive study was carried out through the present investigation from January 2nd 2011to September 2nd 2011 in order to achieve the objectives of the present study. A non probability (purposive) sample, (200) cases which consists of clients who were attending Al-Nasiriyha diabetic center. Including (118) males and (82) females. The data were collected by utilization of the study instruments and employment of scheduled interview as means data collection. The data collection process was performed from April /30/ 2011 to Jun / 3rd/ 2011. 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 2 parts which are demographical, and diabetics self management skills indicator dietary pattern .The reliability of the questionnaire was determined through a pilot study and the validity through 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) years, (72.0) of them are without of diabetes type 2 self management skills toward dietary pattern, most of them were 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 by chance. There are significant association between diabetes type 2 clients' self management skills toward

dietary pattern and (age, educational level, monthly income).And there were no significant association with another variable.

Recommendations:

The researcher recommended that the new diabetic patients should be involve in educational program , supply with booklet which include self management skills toward dietary pattern and supported by videotapes to enforce their practices , with the nurse supervision during visit them to the center , and instructed to improve their life management skills for control their blood glucose and body weight to avoid long term complications.

Keywords: Determination, diabetes type 2 clients, self-management skills, dietary pattern.

Introduction:

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 diseases with a rapid increase in prevalence in the world to the extent the World Health Organization (WHO) described it as an epidemic disease [(1)].

It is requires kills with knowledge in using evidence-based advances in treatment and self management skills [(2)]. Life skills are Practices used in every day to maintain a healthy self skills management toward dietary pattern with DM which allow patients 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 [(3)].

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[(4)].

Methodology:

Descriptive study was carried out through the present investigation from January 2nd 2011to September 2nd 2011 in order to achieve the objectives of the present study.

An official permission was obtained from the ministry of planning \Central Council of Statistics for the acceptance of the questionnaire draft. Another approval is issued from the Ministry of Health\The study has been conducted on the diabetes type 2 clients who are attended Al-Nasiriyha Diabetic and Endocrinology Center.

A non-probability (purposive) sample, (200) cases. Including (120) males and (80) females.

A non probability purposive sample of 200 cases which consists of clients who were attending Al-Nasiriyha Diabetic and Endocrinology Center. Including 118 male 82 female with the mean of age (19.5, ± 9.25) year. The results according to the following criteria:

Inclusion Criteria:

1. Men and women who were diagnosed with diabetes type 2.
2. Ages between 20 – 69 years old.

Exclusion Criteria:

1. Free from other systemic illnesses.
2. Free from psychiatric illnesses.
3. Duration of diabetes mellitus not less than one year.
6. Excluded pregnant women with diabetic during pregnancy.

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 two parts which are demographic and diabetic life skills indicators.

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 diabetes life skills indicator.

Part II: Dietary patterns (11 items).

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)

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 / m2 under weight

18.5 – 24.9 kg / m2 normal

25.0 – 29.9 kg / m2 over weight.

30.0 – 39.9 kg / m2 obese.

≥ 40.0 kg / m2 morbid obese (Grodner, et al., 2000).

SES=121-150 High score. SES=90-120 Middle score. SES=89 and less low score (Kumare, et al.,2005).

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 15 experts for determination of its face validity, these experts were four faculty members from the College of Medicine of University of ThiQar, eight 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 Nasiriyha Health Director, and one faculty member from the College of Education University of Thi Qar.

The mean of experience for panel was (19.5, ± 9.25) years, and experts agreement was 91.2% 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. Recommendations about words printing mistakes to correct them.

A purposive sample of 20 male and female with diabetes type 2 who attended Al-Nasiriyha Diabetic and Endocrinology Center. The pilot study was conducted from 2 / March / 2011 to 21 /April / 2011. 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 clients.
3. To enhance the validity of the questionnaire.
4. The results of the pilot study showed that:
5. The items of the questionnaire were clear and well understood.
6. The items required for each client's interview range from 15 – 20 minutes.

Test-retest reliability was determined through a computation of Pearson's correlation for scale coefficients for 21 items was r = 0.90.

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

The data were collected in two ways for the present study through the utilization of the study instruments and employment of a scheduled interview as a means for data collection. The data collection process was performed from April / 30/ 2011 to Jun / 3rd/ 2011.

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

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

Analysis of the data was employed through the application of the following statistical data analysis approaches.

A: Descriptive statistical data analysis: including

- Frequency= (F)
- Percentage
- Mean
-Standard Deviation.

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 coeffient typically range from + 1.00 (for perfect relationship) (through 0.0 for no relationship) to– 1.00 (for perfect inverse relationships) (Polit and Hungler, 1995). Person correlation coefficient: it was used to estimate the scale (test-retest) reliability.

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. The other usefulness of the contingency table in addition to that can be summarized by testing the correlationship value through the contingency coefficient according to the presence of constraint (s) effects which were assigned the impertinence from the random state of the observed frequencies distribution among the two independent factors (Polit and Hungler, 1995; AL Naqeeb, 1992).

Confidence Level of the cause's correlationships of the contingency coefficients proposed within not less than 95% interval should be meaningful (AL-Naqeeb, 1992).

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 self management skills concerning dietary pattern.

Results:

Table 1. Demographic characteristics of (200) diabetes type 2 clients Self Management skills toward dietary pattern

Age	Frequency	Percent
20 – 29 years	18	9.0
30 – 39 years	24	12.0
40 – 49 years	38	19.0
50 – 59 years	75	37.5
60 – 69 years	45	22.5
Total	200	100.0
Gender		
Male	118	59.0
Female	82	41.0
Total	200	100.0
Marital status.		
Single	33	16.5
Married	144	72.0
Widowed	6	3.0
Divorce	17	8.5

Table 1. (Continued)

Total	200	100.0
Educational level.		
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
Total	200	100.0
Duration of diabetes mellitus diagnosis.		
1 – 5 years	88	44.0
6 – 10 years	62	31.0
11 years and above	50.o	25.0
Total	200	100.0
Monthly income.		
Sufficient	4	2.0
Barely sufficient	43	21.5
Insufficient	153	76.5
Total	200	100.0
Occupation.		
Employee	66	33.0
Unemployed	76	38.0
House wife	58	29.0
Total	200	100.0
Body mass index (BMI).		
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
Extreme obesity > 40.0 $kg.m^2$	0	0
Total	200	100.0
Have knowledge about diabetes mellitus.		
Yes	182	91.0
NO	18	9.0
Total	200	100.0
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
Total	200	100.0
How diabetes mellitus has been diagnosed		
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

Table 1. (Continued)

Delayed wound healing	**2**	**1.0**
By chance measuring blood glucose level	**75**	**37.5**
Total	**200**	**100.0**

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 are 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 when they measuring blood glucose level by chance.

Table 2. Total of (200) diabetes type II clients self-management skills toward dietary pattern

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

%=Percentage

This table indicates that (72.0%) of the study sample (144) clients are without diabetes type 2 life skills while (28.0%) of the study sample (56) clients are with diabetes type 2 self management skills toward dietary pattern.

Table 3. Mean scores for items of (200) diabetes type II clients self-management skills toward dietary pattern

No.	Items	Yes	No	M.S	Sig.
1	**Do you take small meals and frequent (5–6) meals daily?**	**95**	**105**	**1.47**	**L**
2	**Do you take rich fiber vegetables?**	**44**	**156**	**1.22**	**L**
3	**Do you avoid eating red meat e.g. (beef, sheep)**	**100**	**100**	**1.50**	**M**
4	**Do you take white meat e.g. (chicken, fish)?**	**159**	**41**	**1.79**	**M**
5	**Do you avoid rich fatty foods**	**115**	**85**	**1.57**	**M**
6	**Do you avoid foods rich with sugar e.g. (sweets).**	**111**	**89**	**1.55**	**M**
7	**Do you avoid taking soft carbonate beverage?**	**76**	**124**	**1.38**	**L**
8	**Do you avoid taking foods outside home e.g. (restaurant).**	**71**	**129**	**1.35**	**L**
9	**Do you avoid use sweetam instead of the normal sugar to sweet the tea?**	**62**	**138**	**1.31**	**L**
10	**Do you avoid taking much fruit especially (grape).**	**87**	**113**	**1.43**	**L**
11	**Do you increase taking (Limon).**	**104**	**96**	**1.52**	**M**
	Total	**1024**	**1176**	**1.46**	**L**

MS= Mean of score, L. =Low, M= Moderate, Sig. =Significant

This table indicates that the mean of scores are moderate for the items (3, 4, 5, 6, and 11) and the remaining (1, 2, 7, 8, 9, 10 and the total) are low.

Table 4. The causes correlationship of the contingency coefficient and significant level responding with or without of (200) diabetes type II clients self-management skills toward dietary pattern with age

Total diabetes life skills / Age		Without life skills	With life skills	Total	* C. C test	** P-value	***CS
20 – 29 years.	F	11	7	18	0.233	0.022	S
	%	5.5	3.5	9.0			
30 – 39 years.	F	15	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							

*CC. = Contingency coefficient. **P – value < 0.05, *** CS= Comparative Significant. S = significant

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

Table 5. The causes correlationships of the contingency coefficient and significant level responding with or without of (200) diabetes type II clients self-management skills with educational level

Total diabetes life skills / Educational level		Without life skills	With life skills	Total	* C. C Test	** P- value	C.S
Illiterate	F	69	10	79	0.445	0.000	S
	%	34.5	5.0	39.5			
Read and write	F	18	2	20			
	%	9.0	1.0	10.0			
Primary school graduate	F	24	6	30			
	%	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							

*CC. = Contingency coefficient, **P – value < 0.05, *** CS= Comparative Significant. S = significant

This table indicates that (34.5%) of the study sample Illiterate without diabetes type II self-management skills toward dietary pattern, while that there are a significant relationship between educational level with total diabetes type II clients self management skills.

Table 6. The cases correlationships of the contingency coefficient and significant level responding with or without of (200) diabetes type II clients self-management skills toward dietary pattern with monthly income

Total diabetes life skills / Monthly income		Without life skills	With life skills	Total	* C. C Test	** P- value	C.S
Sufficient	F	1	3	4	0.283	0.000	S
	%	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							

***CC. = Contingency coefficient. , **P – value < 0.05, *** CS= Comparative Significant. S = significant**

This table indicates that (60.5%) of the study sample within insufficient monthly income without diabetes self management skills. While that there are a significant relationship between total diabetes type II clients self-management skills toward dietary pattern with monthly income.

Discussion:

Part I: Discussion of (200) diabetes type II 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 the majority 75 (37.5%) of the group are (50–59) years, the mean of age are (52) years. This finding is supported by Boon et al [5]. 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, obtained from study done by Al-Mansour [6] . 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 the majority 118 (59.0%) of study sample are males and the remaining are females. This results are similar to result obtain from study done by Al-Mansour [6]. While the option views of the researcher the male & female have an equal chance to expose to diabetic disease. Concerning to marital status, the majority 144 (72.0%) of study sample were married, while the minority 6 (3%) were widowed. This finding is agreed with study done by Al-Suffar [7] .stated that the majority (83%) of the study sample are married.

With regard to the level of education of type 2 diabetic client, it is demonstrated that most of them could not read & write and they a counted 79 (39.5%) for the study sample. This result was agree with results obtain from study done by Musaiger & Al-Mannai [8]. Who's found that the educational level among Bahraini adults with type 2 DM did not read and write.

Relative duration since Diabetes Mellitus diagnosing, the majority 88 (44%) of the study sample are in duration of (1–5) years, while the minority 50 (25%) are in duration (11) years and above, while the range between (1–11) years and above, the mean is (7.05). These results was supported results obtain from study done by Akbal ([9]). Stated that the mean of diabetes type 2 clients duration averaged (9.8) years.

Regarding income most of the study sample 153 (76.5%) is insufficient and most of them 76 (38 %) are unemployed. This result is supported with study done by Maxwell et al [10]. Stated that more than (44%) of their study sample were retired and significantly associated with diabetes self-care skills.

Related to BMI the majority 99 (49.5%) of the study sample are (25.0–29.9) kg / m2 they are overweight. This result is supported with

results obtain from study done by Al- Mansour [6]. 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, the majority 182 (91%) of the study sample have knowledge, most of them 148 (74%) the sources of information from their physicians and 24 (12%) from nurses, and the minority 18 (9%) haven't knowledge about diabetes life skills. This result agrees with study done by Maxwell [10]. Reported that appropriate patients knowledge from health care provider team for self-care skills are the key to achieving therapeutic goals in ambulatory care. These finding means that the nurse play 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 (The researcher).

Relative to how DM has been diagnosed the majority 75 (37%) of the study sample are diagnosed incidentally when measuring BG level, while the minority 47 (23.5%) are diagnosed when polyurea and mouth dryness appears. This result is supported with results obtain from study done by American Diabetic Association (ADA) [11]. Stated that for most patients approximately (75%), type 2 DM is detected incidentally (e.g. when routine laboratory test or ophthalmoscope examination is performed. These finding means 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 (The Researcher).

Table 2: Indicates that the majority 144 (72%) of the total of (200) diabetes type 2 clients are without DM self management skills toward dietary pattern and the minority (28%) are with self management skills. This result disagrees with study done by National Center for Chronic Disease prevention and Health promotion (NCCDPHP) [12]. Reported that the percentage of patients who get recommended preventive services and DM self-care 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) diabetes type 2 client's self management skills toward dietary pattern

Table 3: This analysis includes (11) items on scale of yes (2) and No (1). This result indicates that the mean of scores are moderate on items (3, 4, 5, 6, and 11) while low on items (1, 2, 8, 9, 10, and total of dietary pattern skills).

Low mean of scores on item (1) with take small meals and frequent (5–6) meals daily. This finding disagree with results obtain from study done by Juhasz et al [13]. Stated that one of life skills preventing hypoglycemia is eat at least every (4–5) hour while awake.

Low mean of scores on item (2) with take rich fiber vegetable, and item (10) with avoid taking much fruit especially (grape). This results disagree with results obtain from study done by Jas [14] .stated that a diabetic patients must eat a lot of fruits e.g. (Kiwi fruit, apples) with avoid grape due to high in fructose can cause Blood Glucose level to rise quickly, and vegetables, in which fiber content is very high, such as (carrot, tomato, cabbage and cucumber) that is mean more chromium, which is very helpful in the treatment of diabetes. This finding related to inadequate information concerning type of food which must be taking by diabetic patients (The Researcher).

Moderate mean of scores in regard on items (3, 4) with avoid eating red met (e.g. beef, sheep), and take white meat (e.g. chicken, fish). This results agree with results obtain from study done by Wilett [15]. Stated that avoid read meat due to increased risk (HD), while white meat must be eaten such as fish and chicken to improve cholesterol levels.

Moderate mean of scores in regard of item (5) with avoid rich fatty foods. This finding agree with results obtain from study done by Wilett [15]. Stated that perhaps the only food that is truly avoided, it's able to cause healthy damaging type of fat.

In regard of item (8) low mean of scores with avoid taking foods outside home (e.g. restaurants). This finding disagree with results obtain from study done by [16]. WIN stated that the protein size that you get away from home at restaurant grocery store, may

contain more food than they need to eat in one sitting, and avoid fast food restaurant.

Low mean of scores in regard on items (7, 9) avoid taking soft carbonate beverage, and avoid use. Sweet is instead of the normal sugar to sweet the tea. This finding disagree with results obtain from study done by 16 (Jas, 2011) who stated that the diabetes patients must be avoid fruit juices, and the meal with sugar sweet tea.

Moderate mean of scores on item (6) with avoid foods rich with sugar (e.g. sweets). This finding agree with results obtain from study done by Mercola [17] .stated that an in-depth of artificial sweeteners–it can seriously harm the patients, a new study will hopefully convince patients to avoid products that content artificial sweeteners. This finding may be related to strong desire of diabetic patient to lake sweet diet (The Researcher).

Moderate mean of scores on item (11) with increase taking lemon. This result agree with results obtain from study done by Jacob [18].stated that vitamin C which is found in citrus fruits (e.g. lemon, orange), is recommended in diabetics due to play crucial role in reducing all problem face diabetics patient such as (gum problem, muscles weakness, and delayed wound healing and it can protect from sever DM complications.

Low mean of scores on total (200) diabetes type 2 life skills concerning dietary pattern. This finding disagree with results obtain from study done by Boon et al [5] .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.

Part III: Include the cause's correlation ships of the contingency coefficient and significant level of demographical characteristics (age, gender, educational level, duration of DM diagnosis, and monthly income).

Table 4: Indicates that there is a significant relationship between age and diabetes type 2 self-management skills toward dietary pattern (C.C = 0.233, C.L = 0.978). This results agree with results obtain from study done by Baquedano et a [1 9] 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 diabetes type 2, clients self management skills toward dietary pattern (C.C = 0.455, C.L = 1.000) The majority (34.5%) of the study sample are do not read and write without diabetes type 2 life skills This results were similar to results obtain from study done by Baquedano et al[19] indicated that there is a significant relationship between level of education and self-care skills. Which mean that level of education effect of reduce practice of multiple self-care skills among less educational level patients (The researcher)

Table 6: Indicates that there is a significant relationship between monthly income and diabetes type 2 clients self management skills toward dietary pattern (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 agree with results obtain from study done by Arleen et al [20].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 the new diabetic patients should be involve in educational program, supply with booklet which include self-management skills toward dietary pattern and supported by videotapes to enforce their practices, with the nurse supervision during visit them to the center, and instructed to improve their life management skills for control their blood glucose and body weight to avoid long term complications.

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