Assessment of Middle age Women's Knowledge towards Household Hazards in AL –Amara City

تقييم معارف النساء متوسطات العمر تجاه المخاطر المنزلية في مدينة العمارة

Rasha L. Neamah , M.Sc.N *

Fatin A. Mahammed, PhD**

* Academic Nurse, AL-Zahrawi Surgical Hospital, Health Directorate of Maysan, Ministry of Health, e-mail: imaar.imaar@yahoo.com
** Assistant Professor, Maternal and Child Health Nursing Department/ College of Nursing, University of Baghdad, e-mail: dr_ fatin 50@yahoo.com

ألمستخلص :

الهدف: تهدف الدراسة إلى تقييم معارف النساء متوسطات العمر تجاه المخاطر المنزلية في مراكز الرعاية الصحية الأولية.

منهجية البحث:أجريت دراسة وصفية لعينة غير احتمالية غرضيه تتكون من 150من النساء متوسطات العمر تم اختيارهنَّ لتقييم معارفهنَّ تجاه المخاطر المنزلية وعلاقتها مع متغيرات أساسية، أجريت الدراسة في الفترة من الأول من تشرين الثاني 2013 ولغاية الأول من أب 2014. واختيرت العينة من أربع مراكز الرعاية الصحية الأولية والتي تتضمن (مركز العروبة ومركز الزهراء و مركز الحسن العسكري ومركز علي الرضا). اختيرت المراكز بطريقة عشوائية من بين 21 مركزاً ضمن القطاع الأول تضمنت الأستبانة جزئيين ،الأول يشمل الخصائص الديموغرافية ،الجزء الثاني يشمل معارف النساء تجاه المخاطر المنزلية والمكون من مقطعين هما المقطع الأول يشمل (المعارف تجاه المنظفات المنزلية ، المعقمات ،والمبيدات ،والمقطع الثاني يشمل التسمم الغذائي) وتم تقيم معارفهن أما كافية او غير كافية .تم اختبار مصداقية الاستبانة عن طريق لجنة قوامها17 خبيراً من مختلف الاختصاصات .تم اختبار ثبات الاستبانة عن طريق معامل الارتباط التجزئة النصفية (r=0.83) .تم تحليل البيانات باستخدام أسلوب التحليل الوصفي و التحليل ألأستنتاجي.

النتائج: أظهرت النتائج أن (31.3%) من النساء ضمن الفئة العمرية (44-40) سنة و(24.0%) يقرأن ويكتبن و (43.3%) ربات البيوت , (54.0%) متزوجات , (79.3%) من سكنة المدينة ، (75.3%) يعشن ضمن أسره نووية ، (42.7%) من مستوى اقتصادي متوسط. أما بالنسبة لمعارف النساء تجاه المخاطر المنزلية اضهرت النتائج انه معظم النساء لديهن معارف **كافية** تجاه المخاطر المنزلية.

التوصيات:أوصت الدراسة على رفع مستوى الوعي للنساء تجاه المخاطر المنزلية وتعزيز السلوكيات الصحية و توزيع الكتيبات والنشرات للأسر والتي تتضمن توجيهات بشأن السلامة المنزلية. أوصت الدراسة على زيادة حجم العينة والتركيز على النساء في سن الإنجاب .

Abstract:

Objective: The aim of the study is assessing middle age women's knowledge toward household hazards, In primary health care centers at AL-Amara City.

Methodology: A descriptive and analytic design is accomplish on non probability (Purposive sample) consisting of 150 middle age women select from four primary health care centers at AL-Amara City (AL-Uroba Primary Health Care Center,AL Zahraa Primary Health Care Center ,AL Hasen AL-Askerry Primary Health Care Center ,and Ali AL-Ridha Primary Health Care Center.) These centers are choose randomly from 21 primary health care centers in the first sector. The study is conduct from (1st November, 2013 to1st August, 2014).The questionnaire is consist of two main parts, including: part 1 socio-demographic characteristics, and part 2 women's knowledge toward household hazards consisted of two sections (knowledge toward household cleaners, Disinfectants, and food poisoning). Assesses women's knowledge(Adequate or In adequate) The content validity of questionnaires are determined through 17 panels of experts from different fields. Reliability of the questionnaire are determine through an application of spilt-half and computation of Cronbach's Alpha Correlation coefficients (r=0.83). The analysis of data is performed through the application of descriptive statistic and inferential statistical.

Results: The findings of the study indicate that (31.3 %) of the study sample are in the age group (40-44) years, (24.0%) are able to read and write, (43.3%) are housewives, (54.0%) are married, (79.3%) are urban residency, (75.3%) are living in nuclear families and (42.7%) are from a moderate level of socio-economic status, Concerning women's knowledge have adequate knowledge toward household hazards,

Recommendations: The study recommends: Raising women's awareness toward household hazards and reinforce the healthy behaviors, distributing of brochures and pamphlets for families include guidance concerning home safety hazards, and looking further studies increasing sampling size and focusing on women in bearing age.

Key words: **Middle age Women, Household Hazards, Knowledge**,

Introduction*:*

Tumans interact with the environment constantly. These interactions affecting on quality of life, years of healthy life live, and health disparities. The World Health Organization (WHO) defines *"environment*," as it relates to health, as "all the physical, chemical, and biological factors external to a person, and all the relate behaviors." Environmental health consists of preventing or controlling disease, injury, and disability related to the interactions between people and their environment [1] Environmental pollutants have various adverse health effects from early life, some of the most important harmful effects are prenatal disorders, infant mortality, respiratory disorders, allergy, malignancies, cardiovascular disorders, and increase in stress, mental disorders, and other various harmful effects [2]. Women are more vulnerable than men to many environmental hazards for a variety of reasons, and aboriginal women in particular are even more susceptible to environmental hazards due to their already marginalized status as a result of their roles as home managers, economic providers and their role in reproduction, women are susceptible to health problems and household hazards in several situations [3]. Indoor characteristics can lead to variety of respiratory disease, depression and anxiety and accidental injuries, in addition specific substances found in the housing environment, including mercury, lead, molds and cleaning chemicals products have a profound effect on the health of residents [4]. Although governmental agencies attend to standard to maintain the quality of outdoor air, maintaining the quality of indoor air in the home, and implementing safe indoor air guidelines is the sole responsibility of the home owner and residents of the home. Household activities, such as smoking, frequency and use of air fresheners, cleaning products, and pesticides can affect air pollution levels in residential air [5].

Methodology:

A descriptive and analytic design was conduct to assess the middle age women's knowledge toward household hazards in AL-Amara city from (1st November, 2013 to 1st August, 2014). Anon probability (Purposive sample) of 150 middle age women is select from four primary health care centers which include: (AL-Uroba Primary Health Care Center,AL Zahraa Primary Health Care Center ,AL Hasen AL-Askerry Primary Health Care Center ,and Ali AL-Ridha Primary Health Care Center).These centers were choose randomly from 21 primary health care centers in the first sector. Through the review of related literature and previous studies, the investigator constructed the questionnaire format, which comprised of (2) parts**, Part I**: Socio-demographic characteristics It is concerned with the identification of the socio-demographic characteristics of the study sample, which include the following variables (age, level of education, occupation, marital status, residential area, type of family, crowding index ,and property. **Part Ⅱ**.: knowledge toward household hazards .This part was presented in two sections: **Section 1:** knowledge toward (household cleaners, disinfectants and pesticides) consisted of 24 items).**Section 2:** Knowledge toward food poisoning : This section consisted 6 items , these items rated and scored to two levels of Likert's scale as: Know (2) and don't know(1). Assess middle age Women's' knowledge as (Adequate or Inadequate) . The validity of the instrument was determined through a panel of (17) experts and the reliability of the questionnaire was determined through the use of split-half approach of the computation of Cronbach's

Alpha Correlation coefficients. The result of correlation is (0.83) for the scale. Data is collect for the original study through applying structured questionnaire format and interview technique as mean of data collection. Data collection is initiated on March 1st ,2014 ,through April 29th ,2014

.Data was collected during morning .30-45 minutes was taken to complete the

questionnaire .Data is analyz through the application of descriptive and inferential statistical approaches.
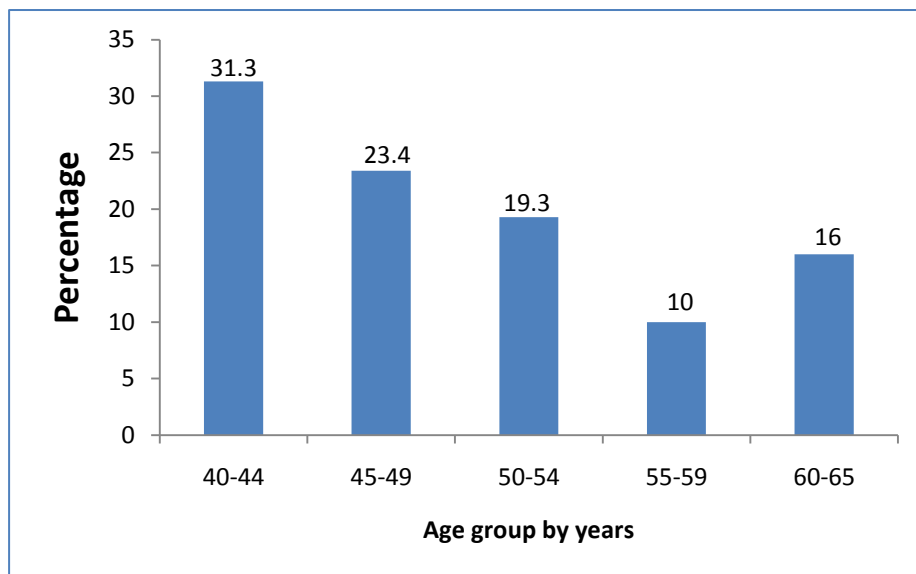
Results:

Figure (1): Age Group

The finding of the study sample indicate that the highest percentage (31.3%) are in `the age group (40-44) years
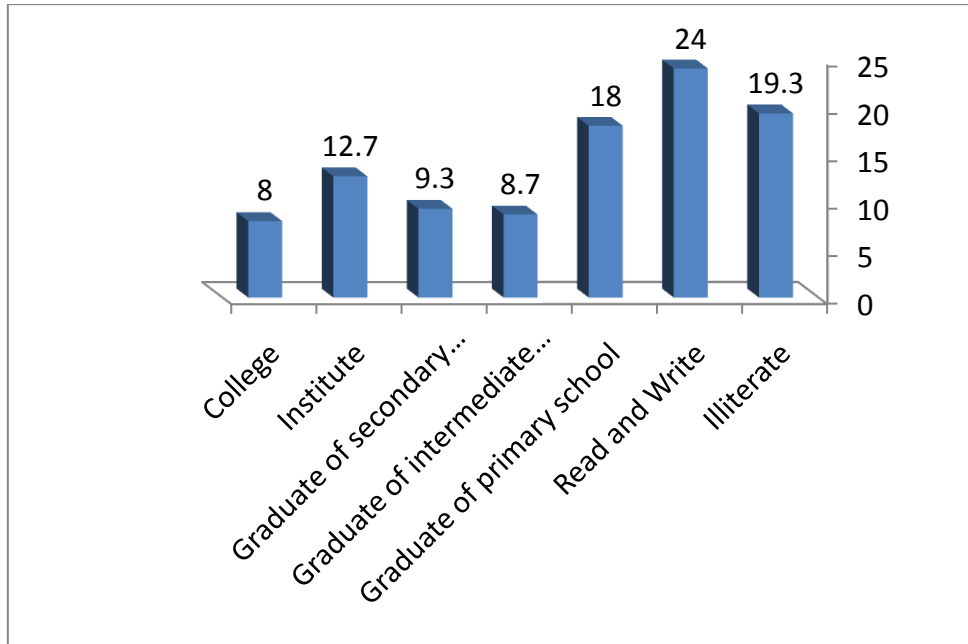
Figure (2): Educational Level:

The finding of the study sample indicate that the highest percentage (24.0%) are able to read and write .
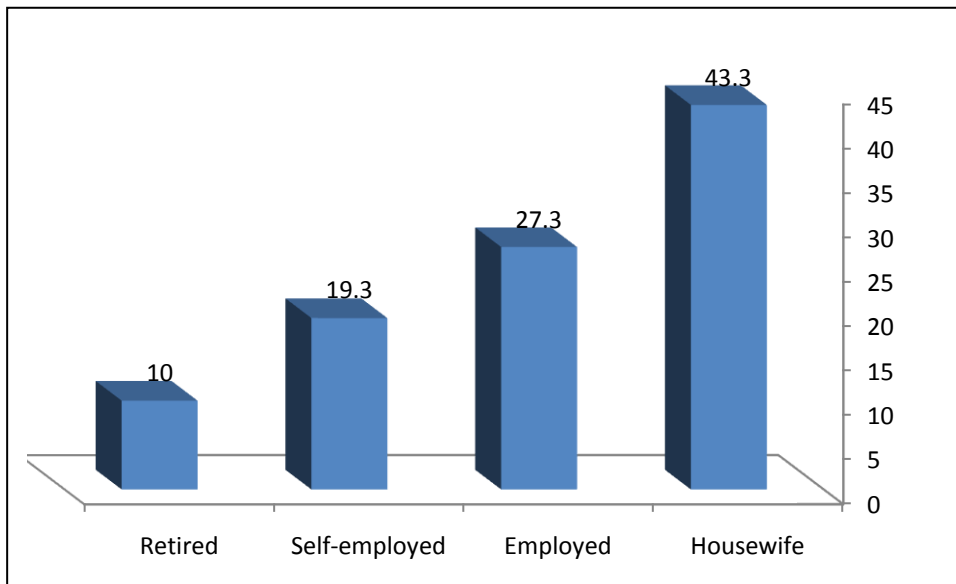
.

Figure (3): Occupation

The finding of the study sample indicate that the highest percentage (43.3%) are housewives
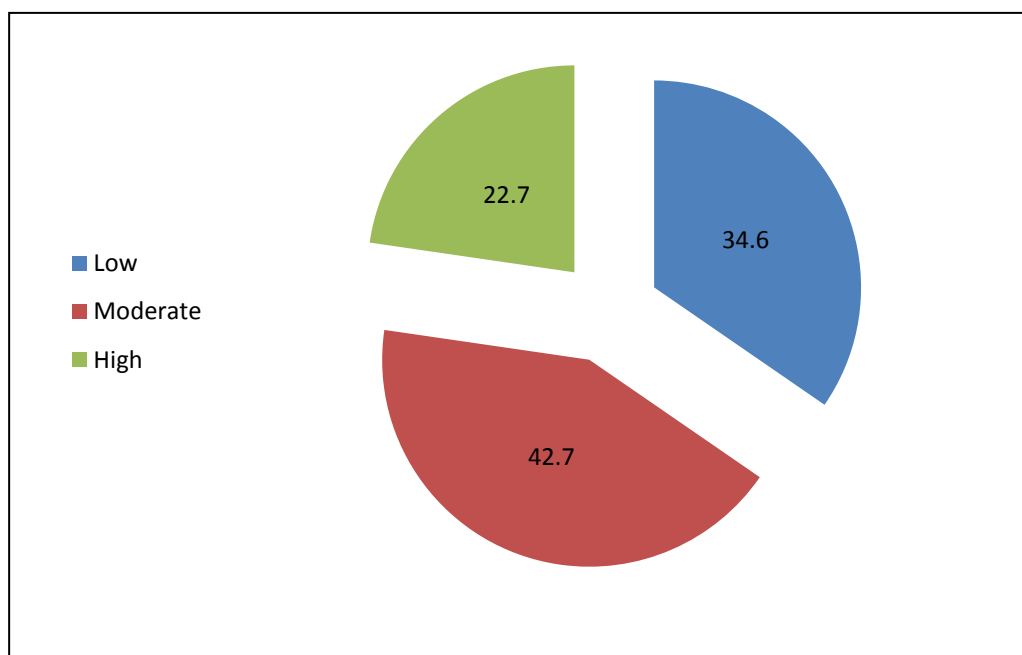
Figure (4):Socio-economic Status

The finding of the study sample indicate that the highest percentage (42.7%) are from a moderate level of socioeconomic status.

Table (1): Distribution of the Middle age Women's Knowledge Concerning Household Hazards (Household Cleaners, Disinfectants and Pesticides).

List	Items	I know		I don't know		M.S	Ass.
		F	**%**	**F**	**%**		
1	Household cleaners contain chemical agents that cause vertigo ,eye irritation and blurred vision	**73**	**48.7**	**77**	**51.3**	**1.49**	Inadequate
2	Bleaching solution is considered a toxic substance causing irritation to mucous membranes of breathing air ways	**80**	**53.3**	**70**	**46.7**	**1.53**	**Adequate**
3	Increase direct contact with bleaching solution causes eczema	**113**	**75.3**	**37**	**24.7**	**1.75**	**Adequate**
4	Inhalation of cleaning detergents (Flash)causing irritation of mucous membranes of respiratory system	**105**	**70.0**	**45**	**30.0**	**1.70**	**Adequate**
5	Using a lot of air fresheners causing suffocation	**126**	**84.0**	**24**	**16.0**	**1.84**	**Adequate**
6	Inhaling pesticides causes	**13**	**8.7**	**137**	**91.3**	**1.09**	Inadequate

Continues…

Table (1): To be continued

	infertility among women and breast cancer among menopause women					
7	Paints and wood polishers contain lead which harm the health	78	52.0	72	48.0	1.52	**Adequate**
8	Using paint cans for food and drinks keeping is health harming	132	88.0	18	12.0	1.88	**Adequate**
9	Make-up materials and whitener soap contain mercury that harm skin	91	60.7	59	39.3	1.61	**Adequate**
10	Using household generator causes suffocation and allergy	118	78.7	32	21.3	1.79	**Adequate**
11	Smoking causes asthma, suffocation and cancer (uterine, ovarian, breast)	132	88.0	18	12.0	1.88	**Adequate**
12	Burning wood for heating and cooking inside home is health harming	135	90.0	15	10.0	1.90	**Adequate**
13	Using kerosene stoves for heating and cooking inside home is health harming	135	90.0	15	10.0	1.90	**Adequate**
14	Using kerosene lighting inside home is health harming	127	84.7	23	15.3	1.85	**Adequate**
15	Exposure to high heat causes skin dryness and fluid loss	81	54.0	69	46.0	1.54	**Adequate**
16	Using steel and copper utensils for cooking is harming to health	53	35.3	97	64.7	1.35	Inadequate
17	It is preferable to use utensils made of aluminum, glass, tefal	65	43.3	85	56.7	1.43	Inadequate
18	Rodents transfer a lot of diseases and are considered reservoir for some nosocomial diseases	138	92.0	12	8.0	1.92	**Adequate**
19	Some detergents and toothpaste of bad quality contain mercury	93	62.0	57	38.0	1.62	**Adequate**
20	Inhalation of some pesticides cause asthma, dyspnea and wheezing	12	8.0	138	92.0	1.08	Inadequate
21	Some of chemical substances cause infertility among women	10	6.7	140	93.3	1.07	Inadequate
22	Signs and symptoms of pesticides poisoning are headache, difficult concentration, increased saliva,	8	5.3	142	94.7	1.05	Inadequate

Continues…

Table(1) to be Continued

	diarrhea, sweating, cyanosis and loss of consciousness						
23	Using a lot of household disinfectants cause hand skin cracking	**120**	**80.0**	**30**	**20.0**	**1.80**	**Adequate**
24	Inhaling some pesticides causes muscular and neural spasms	**10**	**6.7**	**140**	**93.3**	**1.07**	Inadequate
Grand Mean						**1.57**	**Adequate**

F=frequency%= Percentage, M.S. =Mean of Scores, Ass. = Assessment, Cut-off point (1.5),
<1.5(Inadequate), ≥ 1.5 (Adequate).

Table(1) reveals that the mean of scores for most knowledge items(2,3,4,5,7,8,9,10,11,12,13,14,15,18, 19,23) are above cut off- point(≥ 1.5) and assess as **"Adequate 'knowledge "** while the following items (1,6,16,17,20,21,22,24) are under mean of score (<1.5) and assess as **"inadequate knowledge"** .The average mean of scores for all items is above cut-off point (1.57) and the assessment is **"adequate' knowledge"**.

Table (2): Distribution of the Middle age women's Knowledge Concerning
Food Poisoning

List	Items	I know		I don't know		M.S.	Ass.
		F	%	F	%		
1	The causes of food poisoning is eating a contaminated or expired food	**147**	**98.0**	**3**	**2.0**	**1.98**	Adequate
2	The signs and symptoms of food poisoning are nausea, vomiting, and abdominal pain	**125**	**83.3**	**25**	**16.7**	**1.83**	Adequate
3	Some manufactured sweets contain toxic materials that cause headache, nausea, vomiting, and abdominal spasms	**95**	**63.3**	**55**	**36.7**	**1.63**	Adequate
4	Some manufactured flavoring and dies existed in juices, frozen foods and ice cream may cause cancer	**75**	**50.0**	**75**	**50.0**	**1.50**	Adequate
5	Canned foods contain preservative materials may cause cancer	**75**	**50.0**	**75**	**50.0**	**1.50**	Adequate
6	Frozen sea fish may contain mercury	**58**	**38.7**	**92**	**61.3**	**1.43**	Inadequate
Grand Mean						**1.65**	**Adequate**

F=frequency, %= Percentage, M.S. =Mean of Scores, Ass. = Assessment, No. = number of item,
Cut-off-point (1.5), <1.5(Inadequate), ≥ 1.5 (Adequate).

Table (2) reveals that mean of scores for most knowledge items (1,2,3,4,5) are above cut off-point(≥ 1.5) and assess as **"adequate knowledge"** while the item (6)is under mean of score (<1.5) and assess as **"inadequate knowledge"** .The average mean of score for all items is above cut off-point (1.65) and the assessment is **"adequate knowledge"** .

Table (3): Distribution of the Middle age Women According to the Level of knowledge towards Household Hazards and Food Poisoning

List	Level of Knowledge	Frequency	Percent
1	**Household Cleaners Disinfectants and Pesticides**		
	Inadequate	19	12.7
	Adequate	**131**	**87.3**
	Total	150	100.0
2	**Food Poisoning**		
	Inadequate	44	29.3
	Adequate	**106**	**70.7**
	Total	150	100.0
3	**Total Knowledge**		
	Inadequate	16	10.7
	Adequate	**134**	**89.3**
	Total	150	100.0

F=frequency, %= Percentage, Cut-off-point (1.5), <1.5 (Inadequate) , ≥ 1.5 (Adequate)

Table **(3)** reveals that the majority of Middle age Women (134) (89.3%) have **"adequate knowledge"** concerning household hazards (Household cleaners, Disinfectants, Pesticides and Food Poisoning). while only(16) (10.7 %) have no knowledge **(Inadequate)**.

Discussion:

Part I: Discussion of the Socio-Demographic Characteristics of the Middle age Women

1. Age

Throughout the data analysis, the finding of the study sample indicated that nearly one third of middle age women (47) (31.3%) are within age group (40-44) years. This result reveals a fact that this age group of the middle age women almost attend primary health care centers because they are more active and responsible in leadership for their families to achieve house needs and tasks. This finding is supported by evidence which indicates that the average age of their study sample is (42)years, with one third of them in the age group(40-44) years [6].

2. Level of education :

In regard to the subjects level of education, the study finding shows that the majority of them have low level of education, (36)(24.0%) are able to read and write while institute and college graduates constitute only (12.7%) and(8.0%) respectively. This result reveals that the education in past years at AL-Amara City was not supported and not encourage especially for women. So most women had no opportunity to study or continue their education because of social and cultural nature (sex discrimination) and being married at early age, particularly those in the rural areas who are mostly involve in either farming or early marriage. This finding has agreed with that of a study in rural Bangladesn, which involve (803) married women aging 45 or over. They report that most women had not receive education (19%), or attend Koranic schooling (59%), and only (22%) have receive formal education [7].

3. Occupation

The major groups of the study sample in regarding to their occupational status are housewives (65)(43.3%). This finding is supported by evidence available in a study which shows that more than thirds of the study sample are housewives and not working. Concerning the sample of this study, the majority are not certificated, so they had no chance for working [8].

4 .Socio-economic Status The result shows that most of the study sample (64)(42.7%) were within moderate level of socio-economic status. The finding of this study agrees with evidence available in a study that shows the majority of study sample are from middle socioeconomic status (46.7%) [9].

Part II: Assessment of Middle age women's Knowledge Concerning House Hold Hazards.

1 . Knowledge concerning Household cleaners disinfectants and pesticides Table (1) reveals that the grand mean of score is (1.57) which is assesses as **"Adequate knowledge "**for the study sample .The study finding shows that women have adequate knowledge for most items except the following items(1,6,16,17,20,21,22,2) which are assesses as Inadequate knowledge. The item concerning household cleaners containing chemical agents that cause vertigo ,eye irritation ,and blurred vision ,the study shows inadequate knowledge .This agree with a study done by supported by the Massachusetts Department of Public *Health* in 2009 about the assessment of *the* 49 custodial staff which found that many suffer symptoms including sore throat, eye irritation, rashes ,blurred vision and headaches were involve .Also in items concerning women's knowledge toward pesticides and its effect on women health. This study shows inadequate

knowledge in items (6, 20 ,22,24) .This is support by that of a study which reveals that limit information is available on the knowledge, attitudes, and practices of pesticide use among women of child-bearing age [10].

Concerning women's knowledge toward cooking in pots made of stainless steel and aluminium, items (16-17) shows *"inadequate knowledge"* *toward* the effects of these utensils made of stainless steel on health. The finding of this study agrees with that of a study which finds that most commonly used cooking pots are those made of aluminium and stainless steel .It is report that, the type of cooking utensil used may contribute some considerable amounts of metals into the foods by way of leaching .Also the result revealed that food cook in stainless steel pots recorded (Fe) ,(Ni ,Ch) concentration more than in that cooked in aluminum pots. The stainless steel contain more than fifty percent (50%) of Iron (Fe), the effect of Iron ,Nickel and Chromium in stainless steel pots may increase the risk of cancer, eczema ,and allergic reaction [11].

Women's knowledge towards Food Poisoning : Table(2) Shows the analysis of data concerning women's knowledge toward **household** hazards (Food Poisoning) .the finding revealed that the grand mean of score is (1.65) which is assesses as "*Adequate knowledge*" for the study sample .It could be conclude that women have adequate knowledge for most items except for the item (6) which refers to frozen sea fish may contain mercury as "*Inadequate knowledge*". Most middle age women (61.3%) in this study didn't know that sea fish might contain mercury .The finding of this study

disagrees with that of a study stated that to assess information of (3213sample) in 2008 in Germany, Greece, Italy, Portugal, Romania, and Sweden UK. Consumers' knowledge about fish containing mercury [12].

In **Table (3)** this study shows that most of the study sample(134)(89.3%) has "*adequate knowledge* "toward household hazards (Household cleaners, disinfectants, pesticides and Food Poisoning), while the lowest (16)(10.7%) have *"inadequate knowledge"*. The finding of this study agrees with that of study which is done on 383 mothers who are select from 6 primary schools in Tehran, Iran which reported that the mothers have higher knowledge, positive attitude, higher health behaviors toward household hazards [13].

Recommendations

1.Training oriented program for household hazards can be considered as a mean for the improvement of women's knowledge and behaviors about awareness toward household hazards.

2. Adapting educational programs about household hazards in all health centers, and governmental and nongovernmental organizations in order to increase the awareness of population as well as reducing the household.

3. Promote health education by healthy staff that focus on all age groups to enhances the awareness toward household hazards.

4. Further studies are required with bigger sampling size and focus on women in bearing age.

References

1- World Health Organization (WHO) .Preventing disease through health environments. Geneva ,Switz.Erland: WHO; 2006).

2- Kelishadi M, Poursafa P ,Rezanejad S ,and Mousavinasab F ."Effects of exercise in Polluted air on the aerobic power, Serum Lactate Level and cell Blood Count of Active Individuals" **International Journal of Preventive Medicine.** .2010; vol.102 (3):145-150.

3- Chelala C.(2001)." Women Taking to Dave the Environment. Commen Dreams .org, retrieved from htt://www.common dreams. Org/view .2001.

4-Braubach M and Bonnefoy X .Housing and Health: The Eastern European Challenge .Open House .2001:26(2):8-22

5-. Coelho, C., Steers, M., Lutzler, P., &Schriver-Mazzuoli, L. (2005). Indoor air pollution in older people's homes related to some health problems: a survey study. *Indoor Air, 15*, 267-274.

6- Fawzi M, Shama M. .Food Safety Knowledge and Practices among women. , *J Egypt Public Health Assoc*. 2009; 84(1&2).

7 Hurt LS, Ronsmans C, and Saha S. Effects of education and other socioeconomic factors on middle age mortality in rural Bangladesh.*J EpidemiolCommunityHealth.*2004;58*:* 15-32 2004;58:315-32.

8-Abduelaal M. and Madiha H B. Improving Mothers' Hygienic Practices to Prevent Food Poisoning among their Children. **American Journal of Research Communication**. Faculty of Nursing, Benha University.2013.

9-Anwar M ,Sulaiman S , Azhar S , Ahmad I K ,and Khan M ."Awareness of scool students on sexually transmitted infections (STIS) and their sexual behavior: a cross –sectional study conducted in pulau pinang Malaysia" , Bio Med Central L td. ,BMC public Health ,2010;access at 5/8/2014 ,available from :http://www.biomed central .com /content/supple –mentary /1471-z4 58-10-47-s2.Doc.

10- Loux NT ,Hassan SM, "Issues in assessing environmental exposures to manufactured nonmaterial's" **International Journal of Environmental Research and Public Health** .2011; 8(9):3562-3570.

11-Emmanuel U ,Godwin A. Impact of Cooking Utensils on Trace Metal Levelof Processed Food Items. **Annals Food *Science and Technology* .**2013; 14(2).

12. Suzanna P, FiliepV, Wim V .Consumer Knowledge and use information about Fish and Aquaculture. **Food Policy** .2013; 40:25-30.

13- Keramat N ,Mirsaeed Y ,Mohammed R ,Kazem M ,Abbas R, and Amir P . The Influence of Mother's Life style and Health Behavior on their Children. An exploration for Oral Health .**Iranian Red Crescent Medical Journal** .2014 Feb; 16(2).