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INFLUENCE OF KITCHEN HYGIENIC PRACTICES ON FAMILY HEALTH AMONG HOMEMAKERS IN ILORIN EAST LOCAL GOVERNMENT AREA, KWARA STATE.

by

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Abstract

The study examined the influence of kitchen hygienic practices on family health among homemakers in Ilorin South local government area, Kwara state. Simple random sampling was used to select 150 respondents. Data were collected and analyzed using descriptive and inferential statistics at 0.05 level of significance. Results of the study showed that majority (34.7%) of the respondents were between the 31-40 years, married (64.0%), Muslims (60.0%), having secondary school certificate (44.0%), are self-employed (44.4%) and their income per month is between ₦21,000 to ₦41,000. Also, homemakers agreed to be involved in some kitchen hygienic practice such as washing of hands before handling food products and regular cleaning of the kitchen to guide against household pest and rodents. Homemakers also strongly agreed that some of these kitchen hygienic practices influence healthy living of the family. Further results showed that the level of education had significance on hygienic practices ($r = 0.0086$; $p = 0.0372$). Also, Hygienic practices had significance on the family's health ($r = 0.050$; $p = 0.0329$). The study concluded that hygienic practices bring about food safety which is a key component in preventing food borne illness and promoting healthy living in the family.

Keywords: Kitchen, Hygiene, Practices, Family, Homemaker

Introduction

Home Economics is a broad subject that has no border. It drives in the subject matter well for the betterment of individual, family and society, call for hygienic practice is vital to human existence and sustainable living. The need for hygienic practice of food in kitchen among homemakers is predominantly important with particular reference to the health of the family (Aina, 2007) Food safety is vital in the home therefore the homemakers should put in their best to follow all the precautions to maintain healthy living.

Personal hygiene is the first step to good health. Nowadays the term "hygiene" is closely related to the concept of health and cleanness, since it is considered to be a key element in disease prevention and a person's quality of life. Hygiene in the kitchen has traditionally been thought of as a set of actions related to care with food, surfaces and utensils. If kitchen surfaces are not properly cared for they can become a source of contamination for the food and utensils that come in contact with them. Moisture and warm temperature are key factors for reproducing bacteria and can turn any surface such as countertops, abandoned unwashed plates and cutlery. To avoid contamination, it is important that kitchen surface and utensils be made from materials that are resistant, smooth and impermeable kept clean and dry always. Kitchen can be described as the laboratory in the home. It is the place where food preparation takes place.

In addition, Anyakoha (2015) explained that kitchen is the workshop in a home. Therefore, it needs to be well planned and equipped so as to save labour, prevent accidents, create space and ensure good health of the family. The design and planning of a kitchen depend on the type of family or establishment to use it. Furthermore, Lucca, Davis and Ferraz (2006) and Olusanya (2010) opined that kitchen is a room used for cooking and preparation. A modern residential kitchen is typically equipped with store, sink with hot or cold running water, a refrigerator and kitchen cabinets arranged according to a modular design. Kitchen should be arranged in such a way that the task of food preparation and utilization of both the equipment and tools are easy. Unnecessary wandering- in the kitchen due to poor management of the equipment and tools should be avoided.

According to Gordon-Davis (2011), she explained that kitchen equipment are things needed for a particular purpose. So kitchen equipment are materials needed to perform the jobs in the kitchen, they are usually not removed once they are installed and are often grouped to their sizes and the jobs they perform (e.g. refrigerator, cooker, sinks, cupboards, shelves etc.). Kitchen tools are those materials that are often moved about in the kitchen when needed e.g. cooking pots, knives, plates, grater, spoons etc. A cheerfully decorated kitchen will make the tasks of the homemakers more enjoyable, pleasant and comfortable. There are two types of kitchen; these are family and industrial kitchen. The attention of the study will be stressed on family kitchen. The family kitchen can be divided into traditional and modern kitchen. Traditional family kitchen is a large room detached from the main building with all cooking and storage facilities. Only small windows are provided. It is usually made with mud in the rural areas. All food preparations are done on the floor. Smoke and fatigue are the major problems of this type of kitchen. The main types of fuel used are fire wood, charcoal, sawdust and kerosene. Modern family kitchen is part of the main building designed with in-built storage, cooking space and working surfaces. The various work centres are planned to reduce fatigue. Most family aimed at building and using the improved type or modern kitchen, the focus in planning the different types of kitchen should be saving time at cooking, increasing efficiency and reducing fatigue for the home makers or kitchen workers. This is done by providing adequate space for the storage of food and equipment. All rules for planning a kitchen is applied in building the kitchen. The main fuel is gas, electricity and kerosene.

According to Mustapha (2006), the family kitchen hints on convenient kitchen plan, the greatest number of hours spent in a kitchen is concerned with the preparation of meals and during this time the house wife movements are for the most parts between the sinks, work surface and cooker the most important aspect of planning the working area of the kitchen need to be planned for convenience.

Statement of the problem

Despite the advances made over the past two centuries, foodborne illnesses pose a threat to international public health and safety. Every year approximately 2.2 million people, a majority of whom are children in the developing countries die as a result of food and water contamination (Asli, Mustapha & Yilmaz, 2016).

There is now growing recognition that the home plays significant role in promoting healthy living within the family. Homemakers in the family are responsible for hygiene and safety in their work area (kitchen). Poor hygiene practice is a major factor affecting health and economic status of a family (Musa & Akande, 2003). Some of these unhygienic practices include; delayed and improper dish washing after meals, exposure of leftover foods, poor storage of food items etc. which reflects that homemakers do not take cleanliness of the work area as an important task among household chores which is a challenging issue.

Research on the level of hygiene practices among homemakers indicated that education of the family has a positive association to the family's well-being. However, there are some lapses which the present study seeks to address. It is on this note that the influence of hygienic practices was assessed in relation to family health in the study area.

Objectives of the Study

The broad objective of the study was to investigate the influence of Kitchen hygiene practice on family

health among homemakers in Ilorin East Local Government Area, Ilorin Kwara State.
The specific objectives of the study are to:

1. Identify the socio-demographic characteristics of homemakers in the study area.
2. Examine the level of kitchen hygienic practices among homemakers in the study area.
3. Assess the influence of kitchen hygienic practices on family health among homemakers in the study area.

Research Questions

The following research questions guided the study.

1. What are the demographic characteristics of selected homemakers in Ilorin East Local Government Area, Ilorin?
2. What is the level of kitchen hygienic practices among homemakers in the study area?
3. How does kitchen hygienic practices influence family health in the study area?

Hypotheses

The following hypotheses were tested at 0.05 level of significance.

HO1: There is no significant relationship between homemakers' level of education and kitchen hygiene practices.

HO2: There is no significant relationship between family kitchen hygiene practices and family health.

Methodology

Research Design: A descriptive survey research method using questionnaire was employed to carry out the study. This method was used to focus on Home makers and their opinions on influence of kitchen practices on family health. In addition, consultation with relevant textbooks, journal article and internet on family hygiene and its effect on family member was carried out.

Population: For this research study the population of the homemakers in the study area were 102,155.

Sample and Sampling Technique: Multi stage Random sampling technique was used to obtain one hundred and fifty (150) Home makers

Research Instrument: A 28-item questionnaire of three sections were used. Section A of 7 items solicited information on demographic characteristics of the respondents, Section B of 15 items solicited information on family kitchen practices while section C of 6 items investigated influence of kitchen hygienic practices on family health. Section B options will be based on "Always, (4) Occasionally (3), Rarely (2) and Not at all (1) while Section C options, was based on Strongly Agree (4), Agree (3), Strongly Disagreed (2) and Disagreed (1), the decision rule was 2.50.

Research Procedure: The researcher with the aid of a research assistant administered the questionnaire. Their responses after the completion of the questionnaire was collected immediately to prevent mutilation. Frequent counts, percentages and mean scores were used to test the variables. The null hypotheses of the study were tested using Pearson Product Moment Correlation at 0.05 Level of Significance.

Reliability of the Instrument: In determining the reliability of the research instrument the test re-test method was used. The validated questionnaire was administered twice on different occasions, the two scores were correlated using Pearson Product Moment Correlation (PPMC), the reliability coefficient of 0.74.

RESULTS

Research Question One: What are the demographic characteristics of selected Homemakers in the study area?

Table 1: Distribution of Socio-demographic characteristics of respondents.

Variables	Frequency (F)	Percentage (%)
Age		
≤20	12	8.0
21-30	49	32.7
31-40	52	34.7
≥41	37	24.7
Marital Status		
Married	96	64.0
Separated/Divorced	34	24.0
Widowed	18	12.0
Religion		
Christianity	57	38.9
Islam	90	60.0
Traditional	3	2.0
Educational background		
Illiterate	10	6.7
Primary	29	19.3
Secondary	66	44.0
Tertiary	45	30.0
Occupation		
Civil servant	56	37.3
Trading	28	18.7
Self employed	66	44.0
Location		
Rural	44	29.3
Urban	106	70.7
Income		
< ₦10,000	24	16.0
₦10,000-₦20,000	46	30.7
₦21,000-₦40,000	69	46.0
≥ ₦41,000	11	7.3
Total	150	100

Source: Field Survey 2015.

Table 1 indicated that 12 (8.0%) of the respondents are below 20 years, 49 (32.7%) respondents are between 21-30 years, 52 (34.7%) respondents are between 31-40 years while 37 (24.7%) respondents are above 40 years. This implied that majorly 52 (34.7) of the respondents are between 31-40 years. It revealed that 96 (64%) of the respondents are married, 34 (24%) respondents are separated/divorced while 18 (12%) of the respondents are widowed. This indicated that majority 96 (64%) of the respondents are married. Also, 57 (38.9%) respondents are Christian, 90 (60%) respondents practiced Islam while 3 (2%) practiced traditional religion. This implied that the more than half of the respondents practiced Islam. It showed that 45 (30.0%) respondents had tertiary education, 66 (44%) respondents had

secondary school education, 29 (19.3%) respondents had primary education while 10 (6.7%) respondents were not educated. This implied that majority 66 (44%) possessed secondary school education. Furthermore, it indicated that 56 (37.3%) respondents are public servant, 28 (18.7%) respondents are traders and 66 (44%) respondents are self-employed. This implied that majority 66 (44%) respondents are self-employed. 44 (29.3%) respondents from rural location while 106 (70.7%) are from urban area. This implied that majority of the respondents are from urban area of Ilorin East Local Government Area. Also, 11 (7.3%) respondents had income ₦41,000 and above, 69(46%) respondents had income ₦21,000 - ₦40,000, 46 (30.7%) respondents had income ₦10,000 - ₦20,000 while 24 (16.0%) earn below ₦10,000 monthly. This implied that majority 69(46%) respondents had income ₦21,000 - ₦40,000.

Research Question Two: What is the level of kitchen hygienic practices among homemakers in the study area?

Table 2: Distribution of Level of Kitchen Hygiene practices of Respondents.

S/N	Statement Items	Always (%)	Occasionally (%)	Rarely (%)	Not At All (%)
1	I wash hands with soap and Clean water before handling perishable foods	66(44.0)	33 (22.0)	24 (16.0)	27 (18.0)
2	Hands washed with soap, clean water and rinse thoroughly after each visit to toilet	48(32.0)	59 (39.3)	40 (26.7)	3 (2.0)
3	I wear clean apron with scarf during food preparation	42(28.0)	36 (24.0)	56 (37.3)	16 (10.7)
4	I cover cuts or sores with appropriate dressing during food preparation	60 (40.0)	42 (28.0)	33 (22.0)	15 (10.0)
5	I clean and disinfect my kitchen regularly to guide against household pest and other insects	55 (36.7)	50 (33.3)	32 (21.3)	13 (8.7)
6	I keep working surfaces clean before and after food preparation	82(54.7)	40 (26.7)	24 (16.0)	4 (2.7)
7	I keep the fire place, stove or cooker clean after each use	38(25.3)	49 (32.7)	52 (34.7)	11 (7.3)
8	I use only clean utensils for preparing, cooking and serving food	72(48.0)	42 (28.0)	28 (18.7)	8 (5.4)
9	I empty the dustbin after each session of cooking and cover it	28(18.7)	60 (40.0)	33 (22.0)	37 (24.7)
10	I keep storage spaces, Including cupboards, cabinets, drawlers and refrigerator clean.	66(44.0)	42 (28.0)	30 (20.0)	12 (8.0)

Source: Field Survey 2015

Table 2 revealed the respondents' level of kitchen hygiene practices. 66 (44.0%) respondents always wash hands with soap and clean water before handling perishable foods in the kitchen, 59 (39.3%)

secondary school education, 29 (19.3%) respondents had primary education while 10 (6.7%) respondents were not educated. This implied that majority 66 (44%) possessed secondary school education. Furthermore, it indicated that 56 (37.3%) respondents are public servant, 28 (18.7%) respondents are traders and 66 (44%) respondents are self-employed. This implied that majority 66 (44%) respondents are self-employed. 44 (29.3%) respondents from rural location while 106 (70.7%) are from urban area. This implied that majority of the respondents are from urban area of Ilorin East Local Government Area. Also, 11 (7.3%) respondents had income ₦41,000 and above, 69(46%) respondents had income ₦21,000 - ₦40,000, 46 (30.7%) respondents had income ₦10,000 - ₦20,000 while 24 (16.0%) earn below ₦10,000 monthly. This implied that majority 69(46%) respondents had income ₦21,000 - ₦40,000.

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3	I wear clean apron with scarf during food preparation	42(28.0)	36 (24.0)	56 (37.3)	16 (10.7)
4	I cover cuts or sores with appropriate dressing during food preparation	60 (40.0)	42 (28.0)	33 (22.0)	15 (10.0)
5	I clean and disinfect my kitchen regularly to guide against household pest and other insects	55 (36.7)	50 (33.3)	32 (21.3)	13 (8.7)
6	I keep working surfaces clean before and after food preparation	82(54.7)	40 (26.7)	24 (16.0)	4 (2.7)
7	I keep the fire place, stove or cooker clean after each use	38(25.3)	49 (32.7)	52 (34.7)	11 (7.3)
8	I use only clean utensils for preparing, cooking and serving food	72(48.0)	42 (28.0)	28 (18.7)	8 (5.4)
9	I empty the dustbin after each session of cooking and cover it	28(18.7)	60 (40.0)	33 (22.0)	37 (24.7)
10	I keep storage spaces, Including cupboards, cabinets, drawlers and refrigerator clean.	66(44.0)	42 (28.0)	30 (20.0)	12 (8.0)

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respondents occasionally washed their hands with soap, clean water and rinse thoroughly after each visit to toilet and 56 (37.3%) respondents rarely wear clean apron with scarf during food preparation in the kitchen. In addition, 60 (40.0%) respondents always cover cut or sores with appropriate dressing during food preparation, 55 (36.7%) respondents clean and disinfect kitchen regularly to guard against household pest and other insects, 82 (54.70%) respondents keep working surfaces clean before and after food preparation. Furthermore, 82 (54.7%) respondents keep working surfaces clean before and after food preparation, 52 (34.70%) respondents keep the fire place, stove or cooker clean after each use and 72 (48.0%) respondents' clean utensils for preparing cooking and serving food.

Research Question Three: How does Kitchen Hygiene Practices Influence the Family Health in the Study Area?

Table 3: Distribution of influence of Kitchen Hygiene Practices on family health of respondents.

S/N	Statement Items	SA(%)	A(%)	D(%)	SD(%)
1	My family experiences enhances my healthy kitchen practices	62(41.3)	39(26.0)	23(15.3)	26(17.3)
2	My family enjoys psychological satisfaction which help to promote my healthy living	22(14.7)	65(43.3)	33(22.0)	30(20.0)
3	The level of Kitchen practice contributes to my family healthy living	60(40.0)	52(34.7)	19(12.7)	19(12.7)
4	My family derived healthy family relationship through the kitchen hygienic practice	69(46.0)	42(28.0)	42(28.0)	15(10.0)
5	The level of personal hygiene practice and cleanliness helps to provide healthy food for the family	82(54.7)	24(16.0)	24(16.0)	11(7.3)
6	The kitchen is free from rodents and pests thereby foods are free from poisoning which could affect the family healthy living	72(48.0)	33(22.0)	20(13.3)	25(16.7)

Source: Field Survey 2015.

Table 3 above shows that 62 (41.3%) of the homemakers, strongly agreed that family experience enhance the healthy disagrees and strongly disagreed respectively. 22 (14.7%) the remaining 30 (20.0%) strongly disagreed to the statement. On item 3, 60 (40.0%) strongly agreed, 52 (34.7%) agreed, 19 (12.7%) disagreed as against 19 (12.7%) that strongly disagrees on the relationship through the kitchen hygiene practices, 69 (46.0%) strongly agreed, 42 (28.0%) agreed, while 24 (16.0%) and 15 (10.0%) disagreed and strongly disagreed with the statement respectively. On item 5, 82 (54.7%) strongly agreed, 2 (16.0%) and 15 (10.0%) disagreed and strongly disagreed with the statement respectively. On item 5, 82 (54.7%) strongly agreed, 2 (16.0%) agreed against 33 (22.0%) and 11 (7.3%) who disagrees and strongly disagreed to the item. my kitchen is free from rodents and pests thereby foods are free and healthy for family, 72 (48.0%) strongly agreed, 33 (22.0%) agreed while 20 (13.3%) disagreed and 25 (16.7%) strongly disagreed.

Hypotheses

HO₁: There is no significant relationship between homemaker level of education and kitchen hygiene practices.

Table 4: Relationship between respondent's level of education and kitchen hygiene practices

Variable	N	Mean ($\bar{X}$)	r-cal	p-value	Remark	Decision
Level of education	150	60.10				
Kitchen Hygiene Practice		69.63	0.0086	0.0372	S	Reject Ho

Source: Field Survey 2015.

In this table, the p-value is less than 0.05, the null hypotheses is therefore rejected. This implies that there is a significant relationship between the level of education and kitchen hygienic practices of homemakers. Hence, the education level of the homemakers is related to their level of kitchen hygiene practices.

HO₂: There is no significant relationship between family hygienic practices and family health

Table 5: Relationship between respondents Kitchen Hygiene Practices and Family health

Variables	N	Mean ($\bar{X}$)	r-value	p-value	Remark	Decision
Kitchen Hygiene Practice	150	56.14				
Family health		58.02	0.050	0.0329	S	Reject Ho

Source: Field Survey 2015

Table 5, shows that the relationship between kitchen hygiene practices of homemakers and family health. From the table, the p-value is less than 0.05, the null hypothesis is therefore rejected. This implies that there is a significant relationship between kitchen hygienic practices and family health. Hence, it can be concluded that as the level of kitchen hygiene practices improved the family health also improved.

Discussion of Findings

The study sought to find out the influence of kitchen hygienic practices on family health among homemakers in Ilorin East Local Government Area Kwara State. The findings on the socio-demographic characteristics of the respondents revealed that majority were between the ages of 31-40 years, married, Muslims with secondary school education qualification, self-employed, living in the urban area earning income ranging between ₦21,000-₦40,000.

The findings also showed that large number of respondents agrees to almost all the kitchen hygiene practices except for emptying the dustbin after each session of cooking and serving food. Also majority of the respondents strongly agreed to the fact that their kitchen hygiene practices has positive effect on the health status of their families.

Further findings in hypothesis one shows a significant relationship between level of education of respondents and their kitchen hygiene practices. Irrespective of the level of qualification, they were able to understand the benefits of healthy living which was also evident in these practices. These findings agreed with the earlier researchers (Akinbode, 2005; Abdulsalam et al 2003 and Musa, 2003) which in their respective findings concluded that homemakers/mothers level of education significantly enhance the level of hygiene practices. Also the findings corroborated the view of Odugbemi (2002) and Addo et al (2007) who opined that nutrition education as not only been shown to improve knowledge and skills but also eating science, physical activities, behaviour as well as health status. Homemakers level of education also serves as motivation attachment and improves their action through which cooking environment is improved to enhance the level of hygiene practices (Aina 2009).

Also, research hypothesis two reveals a significant relationship between kitchen hygiene practice and family's health. This further buttresses the findings in table three which confirms that this good kitchen hygiene practices have positive effect on their family's health status. In a similar research work Oloyede (2006) was of the view that hygiene practices enhance family well-being and serves as basic for functional healthy living.

Conclusion

The need for hygienic practices of food in the kitchen is predominantly important with particular reference to the health of the family. Education of house makers/home makers on food safety is a key component in preventing food borne illness and in promotion effective kitchen hygiene practice. Homemaker level of education was found to be significantly associated to the level of hygiene practice in kitchen. It was revealed from the findings that using clean utensils, keeping food preparation areas clean and not leaving perishable foods at room temperature enhances family health practices.

Recommendations

Based on the findings and conclusion drawn from this research work, the following recommendations were made:

1. Homemakers should be encouraged more on the need to maintain sanitary and hygienic practices at home, awareness should also be created among rural dwellers regarding evils of not cleaning the kitchen equipment and improper hygiene practices
2. People should learn more on food borne illness through nutrition education and properly sanitized to promote healthy relationship with their kitchen utensils
3. Homemakers should cultivate the habit of keeping their food items safe from ants and other kitchen insects.
4. Perishable food items should be refrigerated and kept at room temperatures, also all the cooking surfaces should be cleaned properly before and after the food preparation.

References

- Abdulsalam, M. & Kaferstorm, F.** (2003). *Food Safety: Safety of Street Foods*. World Health Organization Forum.
- Addo, K., Mensah, & Ayeh, M.** (2007). *Food and its preparation in hotels in Accra: A concern for food safety*.
- Aina, O.** (2007). *Food hygiene and maintenance culture: A publication of Food Science*, University of Agriculture, Abeokuta.
- Anyankoha, E.** (2015). *Home Management for Schools and Colleges*. Onitsha, African First Publishers' Plc.
- Asli, U., Mustapha, V.Y., & Funda, P.C.** (Ed.) (2016). *Significance, prevention and control of food related diseases: Food Safety - Problems and Solutions*. Intech Publisher, DOI 10.5772/60612
- Gordon-Davis, L.** (2011). *The hospitality industry handbook on hygiene and safety for South African Students and Practitioners*, South Africa: Juta and Company Ltd.
- Lucca, A., Davis, T. & Ferraz, F.A.** (2006). Street-food. *The hygiene condition of hot-dogs sold in Sao Paulo, Brazil*, Food Control, 17312-316.
- Musa, O. & Akande, T.** (2003). Food Hygiene Practices of Food Vendors in Secondary Schools in Ilorin. *Nigerian Postgraduate Medical Journal on Foods* 6(23), 6-10.
- Mustapha, A.** (2006). The impact of Home and school environmental: Towards the empowerment of adolescents for national reconstruction. *Zaria Journal of Education* 2 (1) 150-152.
- Odugbemi, T.** (2002). *Food poisoning: Cause Management Control and Recent Advances*. Nigerian Medical Practitioner.
- Olusanya, S.O., Bala, F., Eyisi, O. & Olojola, S.O.** (2010). *Exam Focus: Food and Nutrition for WASSCE*. Ibadan University press plc.
- Takanashi, K.** (2009). Survey of food-hygiene practices at home and childhood diarrhea in Hanoi, Vietnam, *Journal on Health Population Nutrition*.
- World Health Organization** (2006). Health Examination of foods handling personnel. *Report of a working group (unpublished document)*, WHO regional office for Europe.