

HEALTH RELATED PROBLEMS OF WOMEN CASSAVA PROCESSORS IN ODEDA LOCAL GOVERNMENT AREA OF OGUN STATE, NIGERIA

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Abstract

Cassava is largely grown and processed to different products such as gaari and cassava flour (Lafun) by women who are exposed to hydrogen cyanide fumes and thus, experienced health related problems. This study investigates health problems associated with cassava processors in Odeda Local Government Area of Ogun State, Nigeria. A multi-stage sampling technique was used to select 120 respondents used for the study while an interview schedule was used to elicit information from them. Data were analyzed with the use of descriptive statistics (frequency counts, percentages and mean) and inferential statistics (Chi-square (χ^2) and Pearson Product Moment Correlation (PPMC). The findings show that most of the respondents (53.37%) fell within the age range of 21 – 40 years. Majority (76%) were married with a moderate household size of six. About 55% had non-formal education and 78.3% were Christian. Most of the respondents (71.71%) belonged to one social organization or the other. Respondents' health related problem was significantly influenced by level of education $\chi^2 = 12.591$, $P = 0.050$. Significant relationship also existed between age ($r = 0.231$, $P = 0.011$), household size ($r = 0.274$, $p = 0.010$) and level of respondents' health related constraints. The level of health related problems of respondents was high in spite of being matured, married and with a large household size. The study recommends that women Cassava processors should be encouraged to wear protective coverings such as hand gloves, aprons and health care and safety information should be aired on the radio, television and print media. This will avail the women cassava processors with information on how better to prevent health problems.

Key words: Cassava, Processors, Women, Health-Related Problems, Odeda.

Introduction

Cassava (*Manihot esculenta* (Crantz) is a vegetative propagated shrub and is one of the most important food crops grown in the tropical regions of the world (Bruijn-Defresco, 1989). It is a high yielding and drought resistant crop grown for use as food in more than thirty-nine African countries (Harn and Kayser, 1985), hence, it is now economically important in several tropical countries where its enlarged root in diversified forms is consumed.

Food products from cassava include *garri*, *fufu*, *lafun*, etc. Cassava has been found to be a very

important crop in fighting hunger, providing income for the farmers as well improving food security in Nigeria and other African countries (Omuetti, 2004, Oyemade, 2003). Women are producers, processors and marketers of agricultural produce and non-agricultural goods and services among which is Gaari and Garri production is tedious, labor intensive, and a potentially dangerous work. A typical rural woman will work anywhere to meet household food security even at the expense of her health (NFSD, 2003 and Kock *et al*, 2010)

Cassava is the third most important food crop in the tropical world (Adebayo and Salahu, 2007). Although it is low in protein, production is increasing because it grows well in poor soils and tolerates droughts. But it has major disadvantages that it generates hydrogen cyanide which is a deadly poison; careful processing and drying readily removes this anti nutritional factor.

Two-thirds of the population in Nigeria consists of women of childbearing and they constitute the vulnerable group; they suffer most severely from the consequences of socio-economic development (EKong, 2003). Adediran (2008) corroborated this assertion that the existing health services being provided through a network of government hospitals, dispensaries, and primary health centers did not reach or remain underutilized by women, especially in rural areas. Also, health care-provided to rural areas are glaringly disproportionate to the needs and abnormally low compared to urban areas.

Women are responsible for the majority of the cassava processing, transportation, and harvesting tasks, while men are associated with the farming largely non-mechanized (Martins *et al*, 2008).

Olawoye, *et al* cited Blumberg and Okoro (1994), who considered the dangers in cassava frying in the traditional manner which is not only hot work but also causes severe eye irritation as prussic acid vapors rise into one's face. Survey women stated that a headache is often the result of head-loading and skin rashes from winnowing while heat exhaustion is as a result of frying garri.

The health status of women is important to the use of improved technology to enhance the standard of living and increase agricultural production. A woman whose health status is very poor will have steady decline in agricultural production which eventually affects her family household Women in good health conditions

can do better and even have multiple turnouts as compared to what we have now. (World Bank, 1992sss). The output of the cassava processors in this study may be declined seriously as a result of various health challenges and it is against this backdrop that this paper aims to address the following objectives:

1. To identify socio-economic characteristics of women cassava processors in Odeda local government. Area of Ogun State, Nigeria.
2. to find out the health related problems associated with women cassava processors in the study area

Methodology

The study was carried out in Odeda Local Government Area of Ogun State, Nigeria. A multi-stage sampling procedure was used to select the respondents for the study. A list of registered women cassava processors was obtained from Health Department at the Local Government Headquarter, Odeda, through the assistance of Environmental Health Officers.

A simple random sampling technique was used to select 12 women cassava processors from each of the ten wards that make up the Local Government; this gave a total sample size of 120 respondents for the study. Information on health-related problems among women cassava processors was obtained through an interview schedule with the aid of a questionnaire. The Instrument for data collection was subjected to face and content validity. Reliability of the instrument was determined through a test-retest method, a reliability co-efficient of 0.87.was obtained and on the basis of this, the instrument was adjudged/considered reliable and used for the study. Based on the score obtained from each respondent from all the items in table 2 respondents were categorized into two using below and above mean criterion. Respondents whose scores belonged to the formal categorized into having a low level of health- related problems while those whose

score belonged to the latter were categorized as having a high level of health problems. A mean of 39.4 was obtained and respondents were categorized accordingly.

Data collected were analyzed through the use of descriptive and inferential statistical tools such as frequency counts and percentage, Pearson Product Moment Correlation (PPMC) and Chi-square (χ^2) were used to find out if there is any significant relationship between the selected socio-economic characteristics of the respondents and the level of health related problems from garri processing in the study area

Results and Discussion

Socio-economic characteristics of respondents

The study reveals that 33.3% and 20% of the respondent's age were between 31-40 and 21-30 years respectively. The mean age of respondents was 39.6 years. It shows that majority of respondents involved in cassava processing were in their active ages, and therefore are expected to engage fully in various garri processing activities. Age is an important factor in determining the productivity and health status of an individual or household. Young people are likely to enjoy better health status and improved productivity than the aged.

The study reveals that a majority (76.2%) of the respondents were married. It implies that their spouses are expected to provide support for their processing and equally for their health. The marital status of rural dwellers is an important variable in determining the health status of the people as opined by Akintola (2008) and Oludipe (2009).

The study also revealed that most respondents (54.2%) had non-formal education while other forms of education accounted for the remaining percentage. Education provides an opportunity to access relevant information on

how to handle health challenges. This result is in line with the findings of Obadaiye (2014). It implies that most of the respondents had a low level of formal education. They may, therefore, be having challenges with accessing information that could be vital and instrumental to their healthy living.

Furthermore, the study revealed that most respondents (78%) were Christians while few (20.0%) were Muslim and traditional (0.8%) religion's faithful. The study established that Christianity is the predominant religion in the study area. Faith based organizations have over the years been identified for their health intervention programmes in Nigerian rural area (Ekong, 2003). The study also shows that household size of cassava processors in the study area was relatively large with a majority of them having 4-6 members while 30% had 7-9 members. It suggests that the households would have more hands to use as a labor force in their cassava processing activities.

This result is in agreement with that of Ewebiyi (2015) who also reported large household size among rural households in Ipokia local government area of Ogun state, Nigeria. Large household dependency ratio may impair good health measures adopted. The mean household size of 6.2 ± 2.2 by the respondents is not in consonant with the findings of Ebitigha (2008) and Oludipe (2009) that a majority of rural households have a size of between one and five members.

The study revealed that majority (71.7%) of the respondents belonged to one social organization or the other. The implication is that respondents could be reached through the various groups to which they belong for intervention programmes on their health. Membership of social organization in the rural area is expected to serve as a platform for governmental and non-governmental interventions.

Table 1: Distribution of respondents' socio economic characteristics (N = 120)

Variable	Frequency	Percentage	Mean
Age(year)	6	5.0	39.6
11 – 20	24	20.0	
21 – 30	40	33.3	
31 – 40	29	24.2	
41 – 50	17	14.2	
51 – 60	4	3.3	
Above 60	120	100.0	
Marital status			
Single	22	18.3	
Married	6	5.0	
Divorced	89	754.2	
Total	3	2.5	
Level of Education			
No Formal Education	65	54.2	
Adult literacy	2	1.7	
Primary Education	24	20.0	
Secondary Education	28	23.3	
Tertiary Education	1	0.8	
Total	120	100.0	
Religion			
Christianity	94	78.3	
Islam	25	20.8	
Traditional	1	0.8	
Total	120	100.0	
Household size			
1 – 3	8	6.7	6.2 ± 2.2
4 – 6	67	55.8	
7 – 9	36	30.0	
10 – 12	8	6.7	
Above 12	1	0.8	
Ethnic group			
Yoruba	111	92.5	
Igbo	9	7.5	
Total	120	100.0	
Membership of Organisation	86	71.7	

Source: Field survey, 2015

Respondents' Health related problems associated with garri processing.

The result of analysis in Table 2 presents a list of health related problems in cassava processing and the severity of each. A large proportion of the respondents (98.3%) experienced severe sight problem, chest pains (95.5%), hotness of the body (93.35%) and total body weakness (93.3%). This could be due to the traditional

method being employed by the respondents that subjects them to heat stress and energy sapping procedures.

The study also shows that garri processors in the study area encountered severe persistent tears (92.5%), headaches (90.8%), high body

temperature (90.8 %) and general body pain (75.8%) while they experience anemia (81.7%), blurred vision, (54.2%), frequent cuts in the skin (70.8%), increased blood pressure (45.8%)

and nose bleeding 46.7% but not in a severe condition. This, therefore, implies that some health challenges are peculiar and closely associated with garri processing.

Table 2: Distribution based on various health problems associated with garri processing

S/N	Problem	Very Severe		Severe		Not Severe		Not experienced	
		F	%	F	%	F	%	F	%
1.	Chest pain	117	97.5	3	2.5	0	0.0	0	0.0
2.	Sight problems	118	98.3	1	0.8	1	0.8	0	0.0
3.	Body itching	1	0.8	71	59.2	39	32.9	9	7.5
4.	Blister	7	5.8	6	5.0	16	13.3	91	75.8
5.	Headaches	111	92.5	7	5.8	0	0.0	0	0.0
6.	Hothness of the body	112	93.3	2	1.7	1	0.8	0	0.0
7.	Blurred vision	8	6.7	10	8.3	65	54.2	9	7.5
8.	Persistent tears	111	92.5	1	0.8	6	5.0	91	75.8
9.	Frequent cuts on the skin	1	0.8	15	12.5	85	70.8	19	15.8
10.	Skin rashes	4	57.5	41	34.2	6	5.0	4	3.3
11.	Fever	83	69.2	23	19.2	14	11.7		
12.	General Body pain	104	86.7	11	9.2	4	3.3	0.1	0.8
13.	Anemia	0	0.0	4	3.3	18	15.0	98	81.7
14.	Increased blood pressure	1	0.8	21	17.5	55	45.8	43	35.8
15.	Severe eye irritation	18	15.0	46	38.3	39	32.5	17	14.2
16.	Nose bleeding	3	2.5	17	14.2	56	46.7	44	36.7
17.	Breathing difficulties	1	0.8	63	52.5	37	30.8	19	15.8
18.	Throat irritation	37	30.0	62	51.7	17	14.2	4	3.3
19.	Persistent catarrh	81	67.5	13	10.8	20	1.7	6	5.0
20.	Total body weakness	112	93.3	7	5.8	1	0.8	0	0.0
21.	High body temperature	109	90.8	9	7.5	2	1.7	0	0.0

Source: Field survey, 2015.

Respondents' Level of Health Related Problems to Garri Processing

The result of analysis revealed that most respondents (54.2%) had a high level of health-

related problems. This may be as a result of the traditional methods employed in the processing which exposes them to long durations of stressful and health challenging activities.

Table 3: Level of health-related problems to garri processing among the respondents

Category	f	%	Mean	Maximum
High (18-39)	65	54.2	39.4	18.0
Low (40-50)	55	45.8		50.0
Total	120	100		

Source: Field survey, 2015

The Relationship between respondents' socio-economic characteristics and level of health-related problems

One of the a priori expectations of this study was that each of the respondents' socio-economic characteristics will significantly determine the health-related problems from cassava processing activities. The result of the analysis, however, shows that only two of the selected- variables had a significant relationship with the level of health -related constraints respondents faced in cassava processing..

The result shows that educational status of the respondents ($\chi^2=15.792$, $p=0.045$) showed significant relationship with their level of health-related constraints from cassava processing. Education provides opportunities to access information on health issues and also exposes people to the various health management tips, (Ironkwe, Ekwe, Okoye, and Chukwu, 2009).

Marital status also showed a significant relationship with the level of health related constraints of the respondents, married respondents could boast of multiple hands in form of family labor which will help carry out processing activities and to cope better with stress than the unmarried processors. This implies that marriage may go a long way in reducing health related problems to garri processing in the study area.

However, the result of analysis revealed that religion and membership of social organizations had no significant relationship with respondents' level of health-related problems. This implies that the religion and organizational affiliation neither reduce nor increase the health-related problems of the respondents.

Table 4: Chi-square: Table of relationship between selected socio-economic characteristics and respondents' level of health related problems.

Variables	χ^2	df	P	Rank	Decision	
Education status	15.792		8	0.045	S	Reject H_0
Religion	6.541	4	0.162	NS		Accept H_0
Marital status	12.591		6	0.050	S	Reject H_0
Membership of						
Social organization	3.750	2	0.153	NS		Accept H_0

Source: Field survey, 2015.

Relationship between age, household size of respondents and their level of health related problems from garri processing.

The result of analysis showed that a significant and positive relationship existed between respondents' age ($r = 0.31$, $p = 0.011$) and their level of health-related problems.

Also, the study showed that household size had a negative but significant relationship ($r = -$

0.274 , $p = 0.010$) with respondents level of health-related problems from garri processing. This may not be unexpected since family members may be used as additional labour source to carry out different activities which help to reduce stress and sickness. This finding validates the earlier finding where marital status significantly influenced health-related constraints of the respondents in the study area.

Table 5: Correlation of respondents' age and household size with their level of health related problems from garri processing.

Variables	r	p	Remark	Decision
Age	0.231	0.011	S	Reject H_0
Household size	-0.274	0.010	S	Reject H_0

Source: Field survey, 2015.

Conclusion

The study established the fact that women cassava garri processors in the study area encountered persistent eye tears, headaches, high body temperature and general body pains while processing cassava. The study also concludes that the educational and marital status significantly influenced the respondents' level of health-related problems. Also, most respondents (54.2%) had high level of health-related problems.

Therefore, the study recommends that Cassava processors should be encouraged to wear protective coverings such as hand gloves, apron, and mouth/nose hood, eye goggles as these will protect them and reduce occupational hazards'. Health care and safety information should be aired on the radio, television and print media. This will avail the women processors with information on how better to prevent health problems. Women in agriculture programme should consider health implication of cassava processing among processors a priority.

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