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EFFECT OF THE PERFORMANCE OF PRIMARY HEALTH CARE SERVICE PROVIDERS ON THE WELLBEING OF CASSAVA FARMERS IN ABIA STATE, NIGERIA

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Abstract

The study examined the health care delivery of primary health care centres (PHC) in Abia State, Nigeria; it assessed the quality of services rendered and the effects on the wellbeing of cassava farmers. Multistage sampling technique was used to select the sample size of 180 cassava farmers for the study. Primary data were generated using a pre-tested questionnaire and were analyzed using descriptive and inferential statistics. The result of the study revealed that the mean age of the respondents was 45.44 years, majority (67.2%) of the respondents were females while about 68.3% of the total respondents were married. The mean household size was 5.23. Majority (93.3%) of the respondents had good knowledge of primary health centres in their area, 72.2% utilized the PHC service centres moderately, and there was a positive perception of the performance of the PHC service providers in the study area. The results of the relationship between performance of PHC service providers and respondents' wellbeing showed that household savings status was significant at 1%, education, household expenditure, health status was significant at 5% while food security, and income level were positive and significant at 10%. The study concluded that the health care delivery of primary health care service centres had a positive effect on the wellbeing of respondents in the study area.

1. INTRODUCTION

The state of health of a farmer is directly related to his efficiency in the field (Adejare, 2001). Agriculture affects health, and health affects agriculture. The vulnerable groups of men and woman farmers incapacitated by poor state of health are found mostly in the rural areas (Obioha

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et al., 2006). Majority of these vulnerable groups play undoubtedly critical roles in the cycle of food production. The principles of PHC allow individuals and groups particularly rural communities active participation in planning, implementing, monitoring and evaluating health interventions. Anyanwu (1993) observed that the prevailing conditions in Nigeria have denied a significant proportion of Nigerians the level of health that can enable them live a socially and economically productive live. It is sad that almost three decades after the Alma Ata Declaration of 1978 elevated health to the state of basic fundamental human right and explicitly recognized its relationship with economic development Nigerians are still witnessing a record high health and development challenges. The right to health is about the most basic of all human rights and is a fundamental objective of social and economic development (WHO, 1992). Primary Health Care represents "essential health care based on practical scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full involvement (FMOH, 1988). This approach to health care emphasizes the cooperation and involvement of the community as contributors and customers in the health care system.

Nigeria is the highest producer of cassava (Erhabor *et al*., 2007), the crop is also a major staple food in Nigeria. As a result of growing urbanization, cassava has become an essential part of diet of more than 70 million Nigerians (FAO, 2003). The estimated per capita consumption of cassava in Nigeria is 238Kcal (Cock, 1985). According to Nyerhovwo (2004), 80 percent of Nigerians reside in the rural areas and they eat cassava meal at least once a day. However, for cassava farmers and rural communities to survive, the local economy must be sustainable, and allow for the provision of important local services. The Nigerian government is committed to quality and accessible public health services through provision of primary health care (PHC) in rural areas as well as provision of preventive and curative services (Nigeria Constitution, 1999). The services provided at these PHC centres include: prevention and treatment of communicable diseases, immunization, maternal and child health services, family planning, public health education, environmental health and the collection of statistical data on health and health related events.

The rural communities and cassava farmers have immense potentials, which can be tapped to enhance the economic survival of the nation, for this health conditions of the rural farmers should be of utmost concern to us. The on-farm and off-farm activities of cassava farmers contribute to the economic growth of the nation and provide job for the teeming population and most essentially serve as source of food for the people (Onumadu & Egeonu, 2012). Smallholder farmers (cassava farmers inclusive) who produce 80% of food and raw materials in Nigeria are being denied health care as a basic human right; health care is either difficult to access or completely inaccessible to them (Killen, 2005). This poses a significant constraint to economic and agricultural productivity.

Primary health care centre is a core institution in the primary health care program. For many communities in Nigeria it is not only the first point of contact but the only available health practice in the rural areas (Lambo, 1989). Therefore, the quality of health care at these primary care centres is an issue of interest not only for the success of primary health program but for the justifications of the community resources deployed therein. Health care services are examples of services in which quality is critical and is demanded most times out of necessity. Hence, it is often asserted and demanded that providers supply output of highest quality, an output that produces perceptible health gains or reduction of sufferings (Ann & David, 1998). With the above mentioned importance of farmers and reasons put forward for them to be healthy this research work is germane. Furthermore, this paper seeks to ascertain the effect of the Performance of Primary Health Care Service Providers on the Wellbeing of Cassava Farmers in Abia State, Nigeria.

2. HYPOTHESIS

1. There is no significant relationship between performance of the primary health care service providers and the wellbeing of respondents in the study area.

3. MATERIALS AND METHODS

This study was conducted in Abia State, Nigeria. Multistage sampling was adopted. The first stage was the selection of the Aba, Ohafia and Umuahia agricultural zones of Abia State. At the second stage, two local governments were randomly selected from each of the zones-Aba zone; Osisioma and Ukwa west government areas: Ohafia zone; Ohafia and Bende local government areas: Umuahia zone; Ikwuano and Umuahia north government areas. Stage three was the purposive selection of three communities from each of the six local governments; those were the communities that have completed and have functional health centres for upward of four years. The fourth stage was the random selection of ten (10) cassava farmers from each of the communities which gave a sample size of 180. Mean, frequency distribution and percentages were used to describe the socio-economic characteristics of the respondents.

Frequency count and mean were used to ascertain respondents' awareness level of Primary Health Care centres in the study area. A five-point likert-type scale was used to get a mean. The five point likert-type scale was as follows: (1) Very much not aware, (2) Not aware, (3) Undecided, (4) Aware, (5) Strongly Aware. An index of awareness was created for each respondent. The respondents were classified as having high, moderate, or low awareness level based on this range of their overall mean score: 3.5-5.0 = High level of awareness; 3.0-3.49 = moderate level of awareness; Less than 3.0 = low level of awareness.

Frequency count and mean was used to determine the level of utilization of PHC centres in the study area. A five-point likert-type scale was used to get a mean. The five point likert-type scale was as follows: (1) Very irregular, (2) irrregular (3) Undecided, (4) regular, (5) very regular. An index of utilization was created for each respondent. The respondents were classified as having high, moderate, or low utilization level based on this range of their overall mean score: 3.5-5.0 = High level of utilization; 3.0-3.49 = moderate level of utilization; Less than 3.0 = low level of utilization. The ordinary least square regression (OLS) analysis was used to determine the effect of primary health care delivery on the wellbeing of cassava farmers.

4. RESULTS AND DISCUSSIONS

The result of the analysis on age revealed that the age bracket of 42-51yrs constitutes the largest age class of about 31.7% of the total respondents, and the mean age of the respondents was 45.44. This implies that most of the cassava farmers are middle aged farmers, this strongly suggests that the majority of the respondents were agile and in their productive age where their energies could be harnessed and utilized for productive ventures in agriculture. 67.2% of respondents were female farmers, while only (32.8%) were males. This indicates that there were more female cassava farmers than males in the sampled population, 68.3% of the total respondents were married, with a mean household size of 5.23, which could be said to be a representation of a moderate household size. The study further revealed that 97.8% of the total respondents had acquired one form of formal education or the other. This implies therefore that there is a relatively high level of literacy among the respondents. Ojukaiye (2001) and Ibeagwa (2011) noted that education is an important socio-economic factor that influences farmers' decision because of its influence on the farmer's awareness, perception, reception and the adoption of innovation that can bring about increase in production.

Table 1: Distribution of respondents according to their socio economic characteristics

Socioeconomic characteristics		Percentages (180)
Age	11 – 21	5.0
	22 – 31	6.7
	32 – 41	25.0
	42 – 51	31.7
	52 – 62	21.1
	63 – 72	10.6
Total		100.0
Mean		
Gender	Female	67.2
	Male	32.8
Total		100.0
Marital status	Married	68.3
	Single	12.2
	Widow	17.8
	Divorce	1.7
Total		100.0
Household size	1 – 4	30.0
	5 – 8	65.0
	9 – 12	5.0
Total		100.0
Mean		
Educational status No formal education		2.2
Primary education		22.8
Secondary education		37.2
Tertiary		37.8
Total		100.0

4.1. Awareness level of primary health care centres

The distribution of the respondents by awareness level of primary health care centres is presented in Table (2). It revealed that the rural farmers were aware that there is a primary health care centre in their area with a mean score of 4.27 and that they knew the exact location of the health centre with a mean score of 3.94. The overall mean score of 3.85 revealed that the respondents had better awareness level of the establishment of primary health care centres in the studied area as well as showed positive attitudes towards the relevance of the established PHC centre.

Table 2: Awareness level of the existence of primary health care centres

Awareness of primary health care centre	Strongly Aware	Aware	Fairly Aware	Not Aware	Very much not Aware	Mean score
Are you aware of any primary health care centre in your locality?	71(39.4)	91(50.6)	16(8.9)	0	2(1.1)	4.27
Do you know the exert location of primary health care centre in your community?	62(34.4)	60(33.3)	50(27.8)	2(1.1)	6(3.3)	3.94
Do you know that it was established by the government to take care of your health challenges?	56(31.1)	77(42.8)	33(18.3)	12(6.7)	2(1.1)	3.96
Are you aware of some of the benefits you stand to gain by patronizing the primary health care centre in your locality?	32(17.8)	63(35.0)	61(33.9)	15(8.3)	9(5.0)	3.52

Do you know that medical experts at the primary health care centre can take care of your health matters?		69(38.3)	49(27.2)	17(9.4)	5(2.8)	3.68
Do you know that visiting the primary health care centre in your community would help you to prevent illness more than to cure it?	49(27.2)	6536.1)	41(22.8)	17(9.4)	8(4.4)	3.72
Overall mean score						3.85
Number of respondents						180

Source: Field survey, 2014. Figures in parenthesis are percentages

The findings according to Table 3 implies that majority of the respondents (93.3%) had good knowledge of the primary health care centres situated in the studied area.

Table 3: Distribution of respondents according to their level of awareness

Level of aware	Percentage(180)
High	37.2
Moderate	56.1
Low	6.7
Total	100.0

Source: Field Survey, 2014

4.2. Utilization level of primary health care centres

The result in Table (4) revealed that the overall mean score of responses of the respondents was 3.31, an indication that the respondents utilized the PHC located in their area very effectively.. This agrees with the assertion of Effiong and Ebong (2009) that there are two types of health care services to the farming household, this include the general hospital, health centres and patient medicine shops referred to as modern medical services and the traditional health services. However, the result further implied that the respondents had no confidence in the PHC managements/service providers in handling their delicate health challenges such as surgery.

Table 4: Utilization level of primary health care centres

Statements	Very Regular	Regular	Undecided	ill Regular	Very ill Regular	Mean score
Attainment of monthly check-up	26(14.4)	95(52.8)	24(13.3)	22(12.2)	13(7.2)	3.55
Inviting of PHC medical personnel to render home treatment to you or to any family members of yours that could not visit the centre due the state of his/her illness.	28(15.6)	69(38.3)	52(28.9)	22(12.2)	9(5.0)	3.47
Do you take your children to PHC centres for immunization	43(23.9)	49(27.2)	66(36.7)	16(8.9)	6(3.3)	3.59
Purchasing of drugs from the primary health care centres only.	31(17.2)	34(18.9)	51(28.3)	8(4.4)	56(31.3)	2.82
Taking of inoculation against certain infections	28(15.6)	69(38.3)	37(20.6)	29(16.1)	17(9.4)	3.34
Visiting the health centre for treatment of major sickness like appendicitis and for other major surgery challenges	27(15.0)	29(16.1)	35(19.4)	40(22.2)	49(27.2)	2.69
Visiting the health centre for	51(28.3)	42(23.3)	53(29.4)	18(10.0)	16(8.9)	3.52

treatment of wounds like knife cuts etc..						
Visiting the health centre for treatment of minor sickness like fever, headache, stomach ache etc..	58(32.2)	29(16.1)	55(30.6)	18(10.0)	20(11.1)	3.48
Average of mean scores						3.31
Number of respondents						180

Field Survey 2014. Figures in parenthesis are percentages

The result in Table (5) revealed that majority (72.2%) of the respondents had moderate level of utilization of PHC in their areas, while 18.9% of the respondents had high level of utilization of the primary health care centres located in their areas. This implies that the primary health care facilities are highly utilized by the respondents. This may be due to the easy accessibility to the health facilities, functionality of the health facilities as well as the quality of treatments and care they received from the PHC personnel. It is expected that continuous and consistent utilization of primary health care facilities will reduce poverty, improve farmers' health status, improve the wellbeing and standard of living of the rural farmers, (Nwaekpe, 2013).

Table 5: Distribution of respondents according to their utilization level of primary health care centres

Utilization level	Percentage (180)
High	18.9
Moderate	72.2
Low	8.9
Total	100.0

4.3. Performance of primary healthcare providers

Table (6) revealed that respondents perceived all other variables used in assessing the performance of primary health care service providers as positive and satisfactory except that of providing adequate information for farmers which had a score of ($\bar{X}$ = 2.29). This will have policy implication on the performance of the farmers. Farmers need adequate health related information that will enable them to remain healthy in carrying out their farming activities.

On the whole, rural farmers (respondents) perceived performance of the health care service providers to be satisfactory. This was indicated by the mean score of 3.31 which was higher than the bench means score of 3.00. This explains why the rural communities predominantly use primary health care facilities (Modern Health Care Facilities) as ascertained by Effiong and Ebong (2009).

Table 6: Performance of the primary health care service providers

Statements	Very Satisfactory	Satisfactory	Undecided	Unsatisfactory	Very Unsatisfactory	Mean score
Provision of essential drugs;	31(17.2)	68(37.8)	63(35.0)	10(5.6)	8(4.4)	3.58
Appropriate treatment of common diseases and inquiries	29(16.1)	64(35.6)	64(35.6)	19(10.6)	4(2.2)	3.53
Attention to patients	25(13.9)	62(34.4)	71(39.4)	14(7.8)	8(4.4)	3.46
Responding to emergency	28(15.6)	63(35.0)	55(30.6)	27(15.0)	7(3.9)	3.43

situations						
Identification of the main cause of an ailment	19(10.6)	59(32.8)	74(41.1)	22(12.2)	6(3.3)	3.35
Oral communication with patients while administering medication	29(16.1)	59(32.8)	38(21.1)	26(14.4)	28(15.6)	3.19
Immunization against the major infectious Diseases	38(21.1)	48(26.7)	45(25.0)	32(17.8)	17(9.4)	3.32
Response to admitted patients' demands	18(10.0)	63(35.0)	64(35.6)	26(14.4)	9(5.0)	3.31
Maternal and child health care including family planning	23(12.8)	59(32.8)	55(30.6)	31(17.2)	12(6.7)	3.28
Billing of discharged patients	19(10.6)	59(32.8)	56(31.1)	38(21.1)	8(4.4)	3.24
Adequate supply of safe water and basic sanitation;	28(15.6)	70(38.9)	43(23.9)	27(15.0)	12(6.7)	3.42
Provision of adequate health information by the PHC centres to the farmers	17(9.4)	38(21.1)	29(16.1)	44(24.4)	52(28.9)	2.59
Overall mean scores						3.31
Number of respondents						180
Bench mark mean score						3

Source: Field Survey 2014. Figures in parenthesis are percentages.

The result for relationship between the performance of primary health care service providers and the wellbeing of respondents revealed that the coefficient of multiple determinations (R^2) was 0.881, an indication that 88.1% of variation in the performance of health care providers was explained by the independent variables included in the model. The results showed that, household savings status, education, food security, expenditure on food, health status and income level were positive and significant at varying risk level. The coefficient of household saving status (1.033) was positively related to the performance of the PHC providers at 1% significant level. This implies that, as the performance of the PHC service providers increases, the household saving status of the respondents increases. The coefficient of education (0.068) was positively related to the performance of the PHC providers at 5% significant level. This implies that as educational status increases, the performance of the PHC service providers increases as well and vice versa. The coefficient of food security (1.208) was positively related to the performance of PHC service providers at 10%. This implies that a unit increase in the performance of PHC service providers lead to a corresponding increase in food security and vice versa.

The coefficient of health status (9.05F-06) was positively related to the performance of PHC service providers at 5% significant level. This implies that as performance of PHC service providers increases, health status of respondents increases as well. The coefficient of income level (1.812) was positively related to the performance of the PHC providers at 1% significance level. This implies that an increase in the performance of PHC service providers lead to a corresponding increase in the income of respondents.

In contrast however, no significant relationship seemed to have existed between the performance of PHC centres and such factors as age and occupation.

From the findings presented on Table 7, the value of F-ratio computed (41.139) was greater than the value tabulated at 1 % level of significance. The implication here is that the null hypothesis which states that "there is no significant relationship between performance of the primary health care service providers and the wellbeing of respondents in the study area" is rejected. Thus the study concludes that there is a significant relationship between the performance of the primary health care service providers and the wellbeing of respondents in the study area.

Table 7: Regression result for relationship between the performance of primary health care service providers and the wellbeing of respondents.

Variable	Linear	Exponential	Double-Log(L)	Semi-Log
Age	-0.144 (-2.734)***	-0.091 (-1.550)	-0.002 (-0.601)	-0.001 (0.514)
Household Saving status	-0.016 (-0.091)	0.053 (0.702)	1.033 (3.402)***	-0.014 (-1.357)
Education	0.294 (2.081)**	0.145 (2.350)**	0.068 (2.493)**	0.024 (2.027)**
Food security	0.255 (2.342)	0.124 (2.460)**	1.208 (1.750)*	5.02E-05 (2.023)**
Household expenditure	0.055 (1.481)	0.018 (1.111)	3.74E-07 (2.446)**	2.1434 (0.587)
Health status	0.397 93.406)***	-0.118 (-2.312)**	9.05F-06 (2.423)**	-5.91E-06 (-3.657)***
Income level	-0.693** (-2.298)	-0.039 (-1.227)	1.812 (3.745)***	-2.59E-05 (-2.341)**
Constant	6.060 (3.601)***	1.650 (2.242)**	2.250 (4.924)***	0.941 (4.753)***
R^2	0.906	0.883	0.881	0.880
Adjusted R^2	0.886	0.861	0.860	0.858
F-Statistic	43.220***	41.769***	41.139***	40.610***

***, ** and * represents statistical significance at 1%, 5% and 10% levels respectively

5. CONCLUSION

The study described the socio-economic characteristics of cassava farmers, ascertained cassava farmers' awareness level of the existence of primary health care service centres, determined the level of utilization of primary health care service centres, ascertained the perceived performance of the primary health care service providers, and determined the effect of the primary health care service delivery on the wellbeing of cassava farmers in Abia state, Nigeria. The study concluded that since there are evidences that the health centres have much potentiality for improving the health conditions of the rural farmers, all necessary supports (from government, community and donor agencies) should be given to such centres to function in full capacity. By so doing, better modern health services shall be rendered to farmers through the health centres. Health information programs should be organized as well as presented in such a way that it will motivate individuals

particularly those in the rural areas to use such information for their personal benefit and the benefit of their families and community

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Author 2 - Wrote the first draft of the manuscript and carried out all field work.
Author 3 & 4 - managed the literature searches and edited the manuscript

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