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INFORMATION AVAILABILITY AND THE EFFECTIVENESS OF INDIGENOUS PRACTICES TO COMBAT LACTATION CHALLENGE AMONG FEMALE FARMERS IN SOUTH WESTERN NIGERIA

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ABSTRACT

The study was conducted to assess information availability on indigenous practices in order to combat lactation challenge among nursing mothers who are farmers in South West Nigeria. It assessed the perceived effectiveness of the identified indigenous practices to combat lactation challenge. The study also determined the attitude of the respondents towards the use of available indigenous practices to combat lactation challenges. A total of 480 nursing mothers were selected across 30 communities in three South Western Nigeria states based on the number of Local Government Areas in each of the State. Structured interview schedule and questionnaire were used to collect data from the respondents. Frequency, percentage and mean were used to analyse data while chi square and correlation (PPMC and Spearman Rho) were used to test hypotheses. Information was 'highly available' on eight out of sixteen indigenous practices for combating lactation challenge identified across the study area. The use of pap has the highest information availability mean value of 2.93 it also has the highest awareness mean value of 3.0. The study further revealed that age ($r=0.722$, $p\text{-value}=0.000\leq 0.05$) had strong positive significant association with perceived effectiveness. Marital status ($\chi^2 = 27.67$, $p=0.000$) also have significant relationship with the perceived effectiveness of available information. The level of education ($r= -0.56$, $p\text{-value}=0.000\leq 0.05$) had significant but moderate negative association with the perceived effectiveness of available information on indigenous aids to lactation. The study concludes that various indigenous practices to combat lactation challenge were numerous in the study area and further medical empirical research into these indigenous practices should be conducted in order to make them a component of affordable maternal health care solution.

Keywords: Lactation, indigenous, colostrum, maternal, infant, nursing-mother, mammal and breast-milk

INTRODUCTION

In every culture and society, the people have developed ways by which they solve their problems whether it is environmental, political, social or health related in nature. This often emerge as a result of several years of research and trials of these solutions in order to arrive at the best solution fit to solve such problems. The solution with less constraints and minimum consequences are usually chosen. The African society has a long-standing history of solving their own problems before the colonization era. African societies are able to research into how to best tackle their problems through what may be regarded as non- scientific approach. Therefore, the various societal way of proffering solution to their own challenges without external aid could be termed indigenous knowledge. Indigenous knowledge refers to the understanding, skills, and philosophies developed by societies/rural community with long histories of interaction with their natural surroundings (UNESCO, 2017). It is a term used to describe knowledge systems developed by a community as opposed to the conventional scientific knowledge that is generally referred to as ‘modern knowledge’. These sophisticated sets of understandings, interpretation and meaning are part and parcel of a cultural complex that encompasses language, naming and classification systems, resource use practices, ritual, spirituality and worldview (UNESCO, 2017). Indigenous knowledge (IK) is the basis for local-level decision-making in many rural communities. IK is said to be knowledge systems embedded in the cultural traditions of rural/local communities; it includes types of knowledge about traditional technologies of subsistence (such as tools and techniques for hunting or agriculture), midwifery, ethno-botany, traditional medicine and ecological knowledge. For rural people, local knowledge informs and influences decision making about fundamental aspects of day-to-day life.

In many cases, indigenous knowledge has been orally passed from person to person for generations. Some forms of indigenous knowledge find expressions in stories, legends,

folklore, rituals, songs and laws. It has value not only for the culture in which it evolves, but also for scientists and planners striving to improve conditions in rural localities. The continued existence of human race is hinged upon reproduction; bringing forth young ones to replace the old and dying. This also happens in the animal kingdom. Replacement of dying old human and animal ensures the continuity of that race. An important factor to the survival of the new-born in mammals is the availability of healthy and nutritious natural milk produced by the mammary gland of the mother after delivery. The non-availability of this milk may portend a danger for the healthy survival of the new baby.

Lactation describes the secretion of milk from the mammary glands for the mother to feed her young or newly born. The process can occur with all post- pregnant female mammals. In humans the process of feeding the young with milk is called breastfeeding. The main function of lactation is to provide nutrition and immune protection to the young after birth. In humans, when the baby sucks its mother's breast, a hormone called oxytocin compels the milk to flow from the alveoli, through the ducts (milk canals) into the sacs (milk pools) behind the areola and then into the baby's mouth (Vaishnav, 2011)

Breast milk is the best gift a mother can give her baby. World Health Organisation (WHO) recommends exclusive breast feeding for first 4 – 6 months followed by addition of semi-solid and solid foods to complement breast milk till the child is gradually able to eat the normal food. According to United Nations Children Fund; UNICEF (2016), more than 5 million Nigerian new-borns miss out to have a head start in life and are deprived of essential nutrients and antibodies that protect them from diseases and death as they are not being exclusively breastfed. According to the World's Children Report (2011), 136.7 million babies are born worldwide and only 32.6 per cent of them are breastfed exclusively in the first six months, exclusive breastfeeding and longer duration of breast feeding is known to protect the child from obesity

risks, it also helps in enhancing brain development and learning readiness. Breast feeding also serves as one of the methods for child spacing. Only 35% of infants world-wide are exclusively breastfed during the first four months of life and complementary feeding begins either too early or too late with foods which are often nutritionally inadequate and unsafe (WHO, 2002). There is a form of milk which has unique characteristics with many benefits that are crucial to the survival and normal development of the baby. This milk is called colostrum. This is a form of milk produced by the mammary gland of mammals in late pregnancy, it contains anti-bodies to protect the new born from diseases and it is rich in proteins, vitamin A and sodium chloride compared to breast milk which contains a larger amount of carbohydrates, lipids and potassium. Colostrum is very important and essential for new-borns. The initiation of breastfeeding in all mammals including humans is an effort from both the mother and the baby.

Breastfeeding is nature's way of nurturing the child, creating a strong bond between the mother and the child by developing baby's trust and sense of security. Breastfeeding is important for young child's survival, health & nutrition. Sometimes new mothers (especially first-time mothers) find it difficult to produce milk in their first few days after delivery and this milk is very essential for new born. According to Stanley (2018), the vast majority of new mothers are able to breast feed while about 2 percent of all women can't produce enough milk regardless of their physical or emotional condition. Others may lactate poorly because they are exhausted, anxious or depressed or weakened by postpartum surgery.

Breast milk is a diet of necessity for any child to have a normal development and growth with immunity to diseases. Unfortunately, some women do not lactate after delivery and such the babies are denied the natural breast milk. In an attempt to solve this problem supplements or artificial milk and colostrum synthetically produced may be given to the babies. Hormonal drugs that can stimulate lactation may also be used. This use of artificial milk or drug to induce lactation can easily be practiced in communities where there are functional health facilities

(with adequate medical staff), adequate drug supply and the new mother is financially capable to afford the artificial milk and or drugs to stimulate lactation. In rural Nigeria where health facilities are absent or present but non-functional and poverty incidence is high; use of drugs or artificial milk is not a feasible option to solve this problem. Despite this challenging scenario, the rural people must solve the problem of lactation among mothers of new-borns. The question now is; what and how do they ensure new mothers' lactate (i.e what indigenous method do they use) to ensure new born in their communities do not miss out of this very important natural diet of milk and Colostrum. There is little or no study on how available is information regarding these indigenous practices in South West Nigeria as such this option of indigenous practices is worth investigating with intention to achieve the following objectives;

1. Ascertain the socio-economic characteristics of the respondents,
2. determine the awareness level of the various indigenous practices identified in the study,
3. determine the level of information availability on each practise identified,
4. determine the attitude of the respondents towards indigenous practices used to combat lactation challenge and
5. determine the perceived effectiveness of the identified indigenous practices to solve lactation challenges.

METHODOLOGY

Study Area and Sampling Technique

The Study was conducted in South West Nigeria which is located in the rainforest vegetation zone of the country and mainly occupied by the Yoruba ethnic extraction. The region consists of 6 states namely; Ondo, Ekiti, Osun, Ogun, Oyo and Lagos. Three states were randomly selected from the 6 states namely Ondo, Ekiti and Ogun states. Ondo and Ekiti states have eighteen and sixteen Local Government Area (LGA) respectively while Ogun has 20 LGA. Proportionately 3 LGA were randomly selected from each of Ondo and Ekiti states while 4

LGA were selected from Ogun state to give a total of 10 LGA. The selection also ensured that at least one LGA were selected from each of the three existing senatorial districts in each state. In the next stage of the sampling, 3 communities were randomly selected from each of the 10 selected LGA to give a total of 30 communities across ten (10) LGA. The final stage of sampling involved purposive selection of 16 nursing mothers in each of the selected communities to give a final sampling size of 480 respondents. The selection procedure for the respondents involved the use of local contacts (informant) in each community to identify nursing mothers (who were also farmers) and has at least a child below 12 months. Each nursing mother sampled then referred the research team to other nursing mothers known to her in the study area. This method was adopted because of the difficulty in obtaining list of nursing mothers (who gave birth in the last 12 months) in the health centres or traditional birth attendant homes in the selected communities due to local security beliefs.

Limitations of the Study: The study selected only 10 LGA across the three states and the sample size was limited to 480 because of paucity of funds and some of the respondents were reluctant to refer the research team to other nursing mothers in the community for the fear of insecurity. This made the sample size to be reduced to 480 against the initial proposed sample size of 1000 respondents. The data collected were based on memory recall in which some information may not be remembered. Because of ethical issues the women were not asked specifically if they have suffered from lactation challenges before, general information on the practices were obtained. These limitations made it necessary for the research team to put in additional time to convince the respondents to cooperate and help with referral and also think deeply to recall as many indigenous practices they could to combat lactation challenge.

RESULTS AND DISCUSSION

Socio-Economic Characteristics of Respondents

These are the personal characteristics of the female farmers (nursing mothers) which include age, religion, marital status and level of education. Table 1 shows that 57.5% of the nursing mothers were in the age category of 20-29 years, while 35% were in the category of 30-39 years. The mean age of the nursing mothers was 28 years. This shows that the nursing mother were within the active reproductive age range and were still very young. The younger a woman the higher her reproductive capability, as such the mean age of 28 is a reflection of this. The fecundity of women decreases gradually but significantly beginning approximately at age 32 and decreases more rapidly after age 37 (The American College of Obstetricians and Gynaecologists, 2018).

Table 1 also shows Christians were 53.3%, Muslims were 40.0.0% and only 6.7% belonged to traditional religion. This finding is similar to the findings of Nigeria Demographic Health Survey, (2008) as quoted by Nolte, *et al.* (2016) which stated that less than 48% of South Western Nigerians were Muslims while 54% were Christians. Nigeria is a country of free religious practice as such the spread across different believes. From table 1, 81.7% of the respondents were married, 8.3% were separated, 7.5% were single mothers and 2.5% were widowed. The majority of the respondents were married because the sampling was purposive and targeted nursing mothers. It is expected in the Yoruba tradition that any women must be married to have children. Culturally children outside wedlock is regarded as a sign of irresponsibility and is condemned in its totality by the African society. This could be said to be responsible for the very low percentage of single mothers (7.5%). The percentage of the single mother is low because having children outside wedlock in Africa is viewed as a defiant from

the norms of the society. Single mothers are hardly accorded respect in the society because it is assumed that such female is promiscuous and that such a child is a product of illicit affair. This assumption may not be totally correct because there could be exceptions; for example when a lady is raped and unfortunately became pregnant. Many time this happens, yet the African society will still find reasons why it happened; reasons like indecent dressing, going out at odd hours or visiting wrong places are often put forward by the society to justify the cultural position of being against children outside marriage. This unacceptability of single motherhood under any guise in the rural communities has made every female conscious of the need to guard herself against having children outside wedlock as much as possible. This possibly has made the percentage of the married to be high in the study area.

Table 1 further revealed that 44.2% of the respondents completed secondary school, 28.8% were educated to the tertiary education level. Almost 13% attempted secondary school while 10.0% completed primary school. The lowest percentage of 5.0% attempted primary school. This shows that greater percentage of the women hold 'Ordinary' level certificate. This qualification of Ordinary Level Certificate is the minimum educational qualification required to contest into the position of either governor or president of the Federal Republic of Nigeria. This therefore puts most of the women at an advantage if they are interested in politics. Education is essential for the understanding, acceptance and utilization of information.

Table 1: Socio-economic Characteristics of the Respondents

| Age | Frequencies | Percentages | Mean |
|------------------------------|--------------------|--------------------|-------------|
| 20-29 | 276 | 57.5 | |
| 30-39 | 168 | 35.0 | |
| 40-49 | 36 | 7.5 | |
| Total | 480 | 100 | 28 |
| Religion | | | |
| Christianity | 256 | 53.3 | |
| Islam | 192 | 40.0 | |
| Traditional Religion | 32 | 6.7 | |
| Total | 480 | 100.0 | |
| Marital Status | | | |
| Married | 392 | 81.7 | |
| Widowed | 12 | 2.5 | |
| Separated | 40 | 8.3 | |
| Single mother | 36 | 7.5 | |
| Total | 480 | 100.0 | |
| Educational Status | | | |
| Completed Secondary School. | 212 | 44.2 | |
| Completed Tertiary Education | 136 | 28.3 | |
| Attempted Secondary School | 60 | 12.5 | |
| Completed Primary School | 48 | 10.0 | |
| Attempted Primary School | 24 | 5.0 | |
| Total | 480 | 100.0 | |

Source: Field Survey, 2018

Awareness Level of Indigenous Practices to Combat Lactation Challenge

The awareness level of respondents on various indigenous aids to lactation is shown in Table 2, the findings from the study revealed that respondents awareness level on the drinking of pap has the highest mean score of 3.0, Use of hot water to massage breast and chest has the second highest mean score of 2.61, the use of palm wine has a mean score of 2.5 to make it the third highest mean. Hand massage of breast was in the fourth place with 2.02 as the mean score. Furthermore it revealed that the respondent's awareness level of the use of *ewedu* soup (*Corchorus olitorius*) has a mean score of 0.10 which was the least mean awareness score and

as such it is in the category of practices with low awareness (LA) while drinking of pap, massage of breast and chest with hot water, use of palm wine and hand massage of breast all were in the category of methods with high level of awareness (HA) based on mean values above the grand mean of 1.11. Generally, the table revealed that the respondents' awareness level on various indigenous aids to lactation is moderate based on the number of practices that have mean awareness scores above the grand mean of 1.11. Half (50%) of the practices had mean scores above the grand mean value.

Table 2: Awareness Level of Respondents on Indigenous Practices to Combat Lactation

Challenges

| Indigenous Aids | Very Much Aware | Aware | Just Aware | Not Aware | Mean Score | ±SD | ±SE | Remark |
|---|-----------------|------------|-------------|-------------|------------|------|------|--------|
| | | | | | | | | |
| Use of Pap | 480(100.0%) | 0(0%) | 0(0%) | 0(0%) | 3.0 | 0.00 | 0.00 | HA |
| Palm wine | 312(65.0%) | 114(23.8%) | 36 (7.5%) | 18 (3.7%) | 2.5 | 0.80 | 0.09 | HA |
| Green papaya | 180(37.5%) | 24 (5.0%) | 64(13.3%) | 212(44.2%) | 1.36 | 1.37 | 0.15 | HA |
| Local oats | 0(0%) | 36 (7.5%) | 20(4.2%) | 424(88.3%) | 0.18 | 0.55 | 0.06 | LA |
| Drinking of much Water | 80(16.7%) | 268(55.8%) | 108(22.5%) | 24 (5.0%) | 2.33 | 0.75 | 0.08 | HA |
| Hand massage of breast, chest and back | 96(20.0%) | 304(63.3%) | 72(15.0%) | 8(1.7%) | 2.02 | 0.64 | 0.07 | HA |
| Use of hot water to massage breast and chest. | 348(72.5%) | 88(18.3%) | 32(6.7%) | 12 (2.5%) | 2.61 | 0.72 | 0.08 | HA |
| Squeezing out breast milk with hand | 120 (25.0%) | 8(1.7%) | 0(0%) | 352 (73.3%) | 0.76 | 1.3 | 0.15 | LA |
| Rubbing of palm oil on breast | 180 (37.5%) | 32 (6.6%) | 8(1.7%) | 260 (54.2%) | 1.26 | 2.07 | 0.16 | HA |
| Rubbing of palm oil on nipple | 108 (22.5%) | 12 (2.5%) | 158 (32.9%) | 202 (42.1%) | 1.53 | 1.61 | 0.14 | HA |
| Washing of breast with black soap | 36(7.5%) | 12 (2.5%) | 8(1.7%) | 424 (88.3%) | 0.29 | 0.84 | 0.09 | LA |
| Sweeping of breast with unused(new) broom | 48 (10.0%) | 12 (2.5%) | 0(0%) | 420 (87.5%) | 0.35 | 0.94 | 0.11 | LA |
| Tying of breast tight with cloth | 76 (15.8%) | 24 (5.0%) | 8(1.7%) | 372 (77.5%) | 0.60 | 1.15 | 0.13 | LA |
| Fenugreek leaf/seed (ejinrin) | 108 (22.5%) | 12 (2.5%) | 8 (1.7%) | 352 (73.3%) | 0.73 | 1.27 | 0.14 | LA |
| Pouring of warm water on the back | 12 (2.5%) | 16(3.3%) | 6(1.3%) | 446 (92.9%) | 0.19 | 0.68 | 0.08 | LA |
| Ewedu (<i>Corchorus olitorius</i>) soup | 8 (1.7%) | 12(2.5%) | 8 (1.7%) | 452 (94.1%) | 0.10 | 0.47 | 0.05 | LA |

Source: Field survey, 2018

Grand mean = 1.11 Mean score <1.11= Low Level of Awareness (LA) and Mean score ≥1.11= High

Level of Awareness (HA)

Availability of Information on Indigenous Practices to Combat Lactation Challenge

Table 3 shows that there is 'high information availability' on the use of Pap, palm wine, hand massage of breast, chest and the back, use of hot water to massage breast and chest, squeezing breast with hand, rubbing of palm oil on breast and rubbing of palm oil on nipple. The practice with the highest mean of information availability was the use of pap (2.93) followed by hand massage of breast, chest and back (2.91) and in the third position was use of hot water to massage breast and chest (2.40). From the Table, 92.5% of the respondents agreed that information on the use of pap was 'very available' while 5.8% opined that information on the use of pap was 'available', Only 1.7% claimed that information is 'not available' on the use of pap. Information on the use of palm wine was 'very available' as rated by 64.6% of the respondents and 'available' according to 31.0 % of the respondents. In addition, hand massage of breast, chest and back was rated by 82.9% as having 'very available information', and 14.6% of the respondents opined that information is 'available' on the use of hand to massage breast, chest and back. From table 3 out of the sixteen (16) practices identified by the respondents 8 were in the category of having 'high level of information availability'.

Table 3: Availability of Information on Indigenous Practices to Combat Lactation Challenge.

| Indigenous Practices | Very Available | Available | Not Available | Mean Score | ±SD | ±SE | Remark |
|---|----------------|-------------|---------------|------------|------|------|--------|
| | | | | | | | |
| Use of Pap | 444 (92.5%) | 28 (5.8%) | 8 (1.7%) | 2.93 | 0.31 | 0.05 | HIA |
| Palm wine | 310 (64.6%) | 149 (31.0%) | 21 (4.4%) | 2.38 | 0.74 | 0.08 | HIA |
| Green papaya | 204(42.5%) | 64(13.3%) | 212(44.2%) | 1.38 | 1.35 | 0.15 | LIA |
| Local oats | 40 (8.3%) | 26(5.4%) | 414(86.3%) | 0.22 | 0.60 | 0.07 | LIA |
| Drinking of much water | 348(72.5%) | 96(20.0%) | 36(7.5%) | 2.10 | 0.72 | 0.08 | HIA |
| Hand massage of breast, chest and back. | 398(82.9%) | 70(14.6%) | 10(2.5%) | 2.91 | 0.66 | 0.07 | HIA |
| Use of hot water to massage breast and chest. | 436(90.8%) | 30(6.2%) | 14(3.0%) | 2.40 | 0.75 | 0.08 | HIA |
| Squeezing breast with hand | 138 (28.8%) | 301(62.7%) | 41(8.5.%) | 2.03 | 0.68 | 0.04 | HIA |
| Rubbing of palm oil on breast | 160(33.3%) | 200(41.6%) | 120 (25.0%) | 2..29 | 1.43 | 0.16 | HIA |
| Rubbing of palm oil on nipple | 140 (29.2%) | 226(47.0%) | 114(23.8%) | 2.30 | 1.22 | 0.16 | HIA |
| Washing of breast with black soap | 77(16.0%) | 12(2.5%) | 391(81.5%) | 0.33 | 1.0 | 0.12 | LIA |
| Sweeping of breast with unused broom | 60 (12.5%) | 25 (5.2%) | 405(82.3%) | 0.32 | 0.96 | 0.09 | LIA |
| Tying of breast tight with cloth | 102 (21.2%) | 18 (3.75%) | 360 (75.0%) | 0.51 | 1.14 | 0.12 | LIA |
| Fenugreek leaf/seed (<i>ejinrin</i>) | 131(27.3%) | 80 (16.6%) | 269 (56.1%) | 1.41 | 1.27 | 0.05 | LIA |
| Pouring of warm water on back | 23(4.80%) | 10 (2.1%) | 447 (93.1%) | 0.11 | 0.70 | 0.08 | LIA |
| Ewedu soup | 20 (4.2%) | 121 (25.2%) | 339 (70.6%) | 0.53 | 0.51 | 0.07 | LIA |

Mean cut off= $(1+2+3) \div 3 = 6 \div 3 = 2.0$; Any Practice with mean < 2.0 will be regarded as Low Information Availability (LIA) while mean values $\geq 2.0 =$ HIA (High Information Availability)

Perceived Effectiveness of Indigenous Practices to Combat Lactation Challenges

The perceived effectiveness of indigenous aids to lactation known to the respondents is shown in Table 4, the findings from the study revealed that the perceived effectiveness of use of pap has the highest mean score of 2.94, this was followed by the use of hot water to massage breast and chest with a mean score of 2.61 while the use of palm wine is in the 3rd position with mean score of 2.48. Hand massage of breast, chest and back has a mean score of 2.04, this put it at the fourth most effective indigenous practice based on the judgment of the respondents. The least effective among the practices was the use of ‘ewedu’ (*Chochorus Olitorius*) soup. The use of pap was effective possibly because it stimulates the women’s body to start secreting milk. The drinking of local oats has a very low perceived effectiveness score and among those who were aware of its use; 90% perceived it as an ‘ineffective’ solution to lactation challenges. Nine out of sixteen indigenous practices identified were in the category of “Not effective”

FOCUS GROUP DISCUSSION RESULT

During the focus group discussion to get additional information, the women in all the groups of the FGD claimed that when pap is taken orally the breasts becomes engorged with milk within approximately 40-60minutes after consumption. This was a response across all the LGA in the Study.

Table 4: Perceived Level of Effectiveness of Indigenous Aids to Lactation used by Respondents

| Indigenous Aids | Very effective | Effective | Not effective | Mean Score | ±SD | ±SE | Remark |
|---|----------------|------------|---------------|------------|------|------|--------|
| Use of Pap | 464(96.7%) | 12 (2.5%) | 4(0.8) | 2.94 | 0.37 | 0.04 | E |
| Palm wine | 309 (66.9%) | 140(30.3%) | 13 (2.8%) | 2.48 | 0.78 | 0.09 | E |
| Green papaya | 158(58.9%) | 100(37.3%) | 10 (3.8%) | 1.40 | 1.35 | 0.15 | E |
| Local oats | 0 (0%) | 6(10.0%) | 50(90.0%) | 0.24 | 0.64 | 0.07 | NE |
| Drinking of much water | 53 (11.7%) | 57(12.5%) | 346(75.8%) | 1.81 | 0.73 | 0.08 | E |
| Hand massage of breast, chest and back. | 87(18.4%) | 366(77.6%) | 19(4.0%) | 2.04 | 0.65 | 0.07 | E |
| Use of hot water to massage breast and chest. | 339(72.5%) | 90(19.2%) | 39(8.3%) | 2.61 | 0.75 | 0.08 | E |
| Squeezing breast with hand | 0 (0%) | 18(14.3%) | 110(85.7%) | 0.75 | 1.28 | 0.14 | NE |
| Rubbing of palm oil on breast | 160(83.3%) | 37(16.7%) | 0 (0%) | 1.29 | 1.43 | 0.16 | E |
| Rubbing of palm oil on nipple | 54 (42%) | 64(50%) | 10(8%) | 0.69 | 1.25 | 0.14 | NE |
| Washing of breast with black soap | 43(76.8%) | 7(12.5%) | 6(10.7%) | 0.30 | 0.88 | 0.10 | NE |
| Sweeping of breast with unused broom | 4(7.5%) | 12 (22.5%) | 44(70%) | 0.28 | 0.76 | 0.09 | NE |
| Tying of breast tight with cloth | 0 (0%) | 31(28.6%) | 77(71.4%) | 0.49 | 1.04 | 0.12 | NE |
| Fenugreek leaf/seed (<i>ejinrin</i>) | 96(75%) | 28(21.8%) | 4(3.2) | 0.59 | 1.16 | 0.13 | NE |
| Pouring of warm water on back | 23(67.7%) | 10 (29.4%) | 1(2.9) | 0.20 | 0.72 | 0.08 | NE |
| Ewedu soup | 4 (14.2%) | 12 (42.9%) | 12 (42.9%) | 0.13 | 0.51 | 0.06 | NE |

Source: Field survey, 2018

Grand mean = 1.14; Score <1.14= Not Effective (NE); ≥1.14= Effective (E)

Attitude of Respondents towards Indigenous Practices for meeting Lactation Challenges

Five points Likert type of scale was used where SA represents strongly Agree, A- Agree, U- Undecided, D- Disagree and SD represents Strongly Disagree. Strongly agree was awarded 5 points for every positively worded statements and SD was scored 1 point. These scores were then reversed for every negatively worded statement. A total of 20 attitudinal statements were used in the instrument to measure the attitude of the women towards indigenous practices to combat lactation challenges. In Table 5, the analysis showed that the calculated grand mean was 3.40 which is in the category of favourable attitude. The women were favourably disposed towards the use of indigenous methods to solve lactation challenges confronting them.

Table 5: Attitude of Respondents towards Indigenous Practices on Lactation Challenges

| Perception statements | S.A | A | Un | D | S.D | Mean score | Remark |
|---|------------|------------|------------|------------|------------|------------|--------|
| Indigenous practices to combat lactation challenge is cheap | 384(80.0%) | 88(18.8%) | - | - | 8(1.3%) | 3.76 | SA |
| Indigenous practices to combat lactation challenges are not user friendly | - | - | - | 144(30.0%) | 336(70.0%) | 3.70 | SD |
| Indigenous practices to combat lactation challenges are not harmful to the baby | - | - | 8(1.3%) | 160(33.8%) | 312(65.0%) | 3.64 | SD |
| Indigenous practices to combat lactation challenges are harmful to the mother | - | - | 8(1.3%) | 232(48.8%) | 240(50.0%) | 3.49 | D |
| Indigenous practices to combat lactation challenges are effective | 300(62.5%) | 172(36.3%) | 8(1.3%) | - | - | 3.61 | SA |
| Indigenous practices to combat lactation challenges are difficult to understand | 8 (1.3%) | 8 (1.3%) | 48(10.0%) | 268(56.3%) | 148(31.3%) | 3.15 | D |
| Indigenous practices to combat lactation challenges are time consuming/stressful | - | - | 48(10.0%) | 256(53.8%) | 176(36.3%) | 3.26 | D |
| Indigenous practices to combat lactation challenges are painful | - | 20(3.8%) | 44(8.8%) | 292(61.3%) | 124(26.3%) | 3.10 | D |
| Indigenous practices to combat lactation challenges knowledge is well publicized | 252(52.5%) | 220(46.3%) | 8(1.3%) | - | - | 3.51 | A |
| Indigenous practices to combat lactation challenges are against my belief/religion | 12 (2.5%) | - | 104(22.0%) | 260(53.8%) | 104(21.3%) | 2.91 | A |
| Indigenous practices to combat lactation challenges are helpful and should be adopted | 340(71.3%) | 132(27.5%) | - | - | 8(1.3%) | 3.68 | SA |
| Indigenous practices to combat lactation challenges are easy to access | 280(58.8%) | 192(40.0%) | - | 8(1.3%) | - | 3.57 | A |
| Indigenous practices to combat lactation challenges are challenging in terms of skills | - | - | 32 (6.3%) | 328(68.8%) | 120(25.0%) | 3.19 | D |
| Indigenous practices to combat lactation challenges are in contrast with modern knowledge | 12 (2.5%) | 36(7.5%) | 216(45.0%) | 188(38.8%) | 28(6.3%) | 2.39 | SA |
| Indigenous practices to combat lactation challenges have no side effects. | 248(51.3%) | 208(43.8%) | 12(2.5%) | 12(2.5%) | - | 3.44 | A |

| | | | | | | | |
|---|------------|------------|-----------|-------------|------------|------|---|
| Indigenous practices to combat lactation challenges are associated with too many risks and uncertainties | - | - | 8 (1.3%) | 280(58.8%) | 192(40.0%) | 3.39 | D |
| Indigenous practices to combat lactation challenges should be introduced and implemented in the health sector | 328(68.8%) | 152(31.3%) | - | - | - | 3.69 | A |
| Indigenous practices to combat lactation challenges are beneficial | 288(60.0%) | 192(40.0%) | - | - | - | 3.60 | A |
| Indigenous practices to combat lactation challenges are not ideal for this modern time | 8 (1.3%) | - | 12 (2.5%) | 128 (26.3%) | 336(70.0%) | 3.63 | D |
| Indigenous practices to combat lactation challenges are adaptable across communities | 144(45.0%) | 176(55.0%) | - | - | - | 3.45 | A |

Source: Field Survey, 2018

2.39-2.89= Strongly Disagree (SD), 2.90-3.39= Disagree (D), 3.40=Undecided (U), 3.41-3.58=Agree (A), 3.59-3.76=strongly agree (SA).

Grand Mean = 3.40 <3.40 = Favourable Attitude ≥3.40 Unfavourable Attitude

Hypothesis of the Study

Hypothesis 1: There is no significant relationship between the socio-economic characteristics of the respondents and the awareness of indigenous practices to solve lactation challenges.

Table 6a shows Chi-square test result of respondent's socio-economic characteristics and the awareness level on indigenous methods to lactation challenges. Marital status and awareness level was significant ($\chi^2=37.933$, $p\text{-value}=0.000<0.05$), this implies that the married might have access to information on indigenous lactation practices than either single parents or the separated. Married women will confidently seek information on lactation challenges compared to single parents or separated women because the society accords the married respect when compared to single parents. In addition, society often will give helpful information related to lactation to the married than single parent in the society. Nursing mother may have other nursing mothers as friends to seek information from. In Table 6b the Pearson correlation between age and awareness score shows that there was a significant, strong and positive relationship between them. The r value of 0.756 was significant with $p=0.000<0.05$. The older the women in age, the higher their level of awareness of indigenous lactation practices. The younger women may be favourably disposed towards modern and scientific solution compared to the older women who may have stronger belief in the indigenous solution to lactation challenge facing women.

Correlation (spearman) between the respondents educational level and awareness level was moderate, significant and positive ($r=0.589$, $p\text{-value}=0.000<0.05$). This implies that the educational level of the women influences their awareness. The higher the education of the women the higher their awareness level. Most of the respondents completed secondary school, this may have positive influence on their disposition towards information seeking. Education exposes people to information and also information seeking behaviour will improve as people acquires certain level of education.

The level of education will assist in the type of information sources the respondents can confidently access and use.

Table 6a: Chi square Result of Relationship between Selected Respondents' Socio-Economic Characteristics and the Awareness Level on Indigenous Practices to Combat Lactation Challenge

| Socio-Economic Characteristics of Respondents | X ² | DF | P-Value | Decision |
|---|----------------|----|---------|----------|
| Marital status | 37.933 | 3 | 0.000 | S |
| Religion | 4.817 | 2 | 0.567 | NS |

Source: Field Survey, 2018

Table 6b: Correlation between Respondents Socio-Economic Characteristics and Awareness Level of Indigenous Practices to Combat Lactation Challenge

| Socio-Economic Characteristics of Respondents | r- value | P-Value | Decision |
|---|------------------|---------|----------|
| Age | 0.756 (PPMC) | 0.000 | S |
| Level of education | 0.589 (Spearman) | 0.000 | S |

Source: Field Survey, 2018

Hypothesis 2: There is no significant relationship between socio-economic characteristics of the respondents and their perceived effectiveness of indigenous aids to lactation.

Table 6 shows correlation (PPMC) result of respondent's age and the perceived effectiveness of indigenous solution to lactation problem. The result reveals that association between the respondents age and perceived effectiveness was strong, significant and positive ($r=0.722$, $p\text{-value}=0.000 \leq 0.05$), this implies that the age of respondents influences how they perceive the indigenous practices to be

effective in solving lactation challenges. The older women possibly have seen these indigenous aids work effectively over the years; they perceived it as being effective as more favourably compared to the younger nursing mothers. The older the women the higher their perceived indigenous practices as being effective for combating lactation challenges. Relationship between the respondent's marital status and their perceived effectiveness was significant ($\chi^2=27.672$, $p\text{-value}=0.000\leq 0.05$). Correlation (Spearman's rho) between the respondents' educational level and their perceived effectiveness was moderately significant but negatively associated ($r= -0.56$, $p\text{-value}=0.000\leq 0.05$). Education can help improve one's sense of judgment and enables the respondents to have a better judgemental ability. With increased education the respondent's perception about effectiveness of the indigenous practices methods reduces. The less educated respondents perceived the indigenous practices as being effective compared to the more educated respondents.

Table 6: Chi-Square Result of Respondents' Socio-Economic Characteristics versus Perceived Effectiveness of Indigenous Aids to Lactation.

| Socio-Economic Characteristics | χ^2 | df. | p-value | Decision |
|---------------------------------------|-------------------------------|------------|----------------|-----------------|
| Marital status | 27.672 | 3 | 0.000 | S |
| Religion | 6.093 | 2 | 0.048 | NS |
| r- values | | | | |
| Level of education | -0.56 (Spearman rho) | | 0.000 | S |
| Age | 0.722 (PPMC) | | 0.000 | S |

Source: Computed from Field Survey, 2018

If $p\text{-value} \leq 0.05$ reject null hypothesis (significant =S), $p\text{-value} > 0.05$ accept null hypothesis (not significant =NS).

CONCLUSION AND RECOMMENDATION

Conclusion

The study revealed that various indigenous practices to solve lactation problems were known in the study area and are perceived as effective by respondents that are older in age. The use of pap, palm wine, drinking of much water, hand massage of breast, chest and back, squeezing of breast, rubbing of palm oil on breast and rubbing palm oil on the nipple were all in the category of indigenous practices with 'high information availability'. The attitude of women farmers to indigenous aids to lactation was favourable. Therefore, it is important to conduct scientific medical research to ascertain the effectiveness of some the practices regarded as effective and understand the physiological processes and any possible side effects of these indigenous methods being used. The scientific research of these indigenous methods is necessary in order to make them a component of cheap maternal health care solution in the rural areas.

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