

# Family and Community Practices for Child Survival, Growth and Development (SGD) among Mothers in Enugu State, Nigeria

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## Abstract

The study was conducted in order to identify the family and community practices (FCPs) for child survival, growth and development (SGD) among mothers in Enugu State. To achieve this two research questions were formulated. Quantitative data were collected from 1969 mothers using family and community practices questionnaire (FCPQ). The data collected were analyzed using frequency distribution, percentages and mean to answer the research questions. The findings of the study showed that mothers adopted FCPs except hygiene and use of insecticide treated bed nets practices in Enugu State. The findings further indicated the mothers adopted FCPs except hygiene and use of insecticide treated bed nets practices to a great extent. It is recommended that appropriate information, education and communication (IEC) messages for promoting FCPs should be carried out on mothers by health workers, including health education teachers, to ensure survival, healthy growth and development of the child.

**Key words:** Family, Community practices, Child survival, Growth and development

## 1. Introduction

It has been estimated that more than ten million children in developing countries die of preventable and curable diseases before their fifth birthday (WHO, 2000). The high mortality among children tends to be a global public health problem and a threat to child survival, especially in developing countries, including Nigeria. Child survival in Nigeria is threatened by nutritional deficiencies and other curable and preventable illnesses particularly malaria, diarrheal diseases, acute respiratory infections and vaccine preventable diseases which account for the majority of morbidity and mortality in childhood (Policy Project/Nigeria, 2002). Traditionally, most of the control measures to reduce incidence of these diseases has been multiple diseases-specific control programmes which have been found to have had administrative, political and technical difficulties in the delivery of health services (Steinwand, 2001).

In response to these identified difficulties, the World Health Organization (WHO) and United Nations Children's Fund (UNICEF) led the development of an alternative approach known as Integrated Management of Childhood Illness (IMCI). This initiative is a strategy that emerged in response to continuing high child morbidity and mortality. WHO (2000) described IMCI as an integrated approach to child health that focuses on the well-being of the whole child. WHO added that IMCI strategy aims at reducing death, illness, and disability due to five major causes of child morbidity and mortality. These diseases include malaria, acute respiratory infections, diarrhea, measles and malnutrition. IMCI targets to address childhood death as well as promote improved growth and development among children under 5 years of age. IMCI, according to WHO (2000), includes both preventive and curative elements that are implemented by health facilities as well as by families and communities.

Hill, Kirkwood and Edmond (2004) identified the three main components of the IMCI strategy as follows:

- improvement in the case management skills of health staff through the provision of locally adapted guidelines on IMCI and activities to promote their use;
- improvement in the health system required for effective management of childhood illness, and
- improvement in family and community practices.

This third component is the focus of this study. All the three components encompass curative, disease prevention and health promotion activities.

Despite all the improvements made in the first two components of IMCI indicated above, it was observed that significant reduction in child morbidity and mortality was not achieved. In other words, the purposes of the two

components were not satisfactorily achieved and hence, the need for an alternative approach was suggested (World Health Organization & United Nations Children's Fund, 1998).

Family and community practices (FCPs) were developed in 1997, in response to the inability of improved care at health facility level to reduce childhood morbidity and mortality. This was sequel to the observation that most mothers and caretakers did not seek care at health facilities (United Nations Children's Fund-UNICEF, 1997). UNICEF (1999) noted that 40-80% of all child deaths occur in the home without the child receiving appropriate care from a trained health worker or attending a health facility. UNICEF (1999) incidentally observed that 72% of the causes of child deaths were preventable or curable, but people did not seem to use existing low-cost technologies that could improve the quality of care for sick children. Hill, Kirkwood and Edmond (2004) noted that families have the major responsibility for caring for their children. They suggested that success in child survival programmes require partnership between health workers and families with support from their communities. This implies that child care approach should form an integrated whole which suggests that implementation is more of health worker, family and community-based. The above means that care being referred to goes beyond the actual health facility setting to include other environment where the child finds himself.

Family as a unit within the community is defined as a special grouping, usually of biologically related persons bound by strong ties of intimacy and caring (Ingalis & Salerno, 1991). The family has the responsibility to provide attention, love, affection, support and services, to meet the physical, mental and social needs of the child and also teach the child the ethical and spiritual concept of the community. The type and quality of care provided by the family is of immense importance to the child's health and well-being (Ingalis & Salerno, 1991). MacQueen, Mcleilan, Metger, Kegeles, Strauss, Scotti, Blanchard and Trotter (2001) conceptualized community to imply a group of people with diverse characteristics who are linked by social ties, share common perspectives and engage in joint action in geographical locations or settings. This definition applies to the study because Enugu State is seen as a community of diverse but closely knitted social ties and share common perspectives and engages in joint actions in geographical locations.

Practices refer to action taken and behaviour exhibited by mothers and caretakers to provide food, healthcare, stimulation and emotional support necessary for child survival growth and development (SGD) (Engle, 1999). This implies that the action and behaviour of mothers and caretakers are critically important to child SGD. The action and behaviour emanating from the family and community should lead to child's optimal well-being. Engle further explained that it is not only the practices that are critical to child survival, growth and development but also the way these practices are performed with affection and responsiveness to the child.

Studies (Evans & Myers, 1994; Mosley & Waters, 1996) have shown that there are practices which promote survival, growth and development of the child on one hand, and those that are detrimental to child's growth and development that may need to be discouraged. Evans and Myers (1994) observed that there are individual variations in practice from family to family depending on the psychological make-up of the parents, their personality, the experiences they had as children and the condition under which they are living. Despite these variations in practice, Hill, Kirkwood and Edmond (2004) advised that families need to know how to feed their children, how to prevent and respond to illnesses, including knowing when to follow treatment advice given by health worker.

Consequently, UNICEF (1999) noted that FCPs as an integrated childcare approach that aims at improving key household practices which are likely to have the greatest impact on child survival, growth and development. Such child care practices in the home, according to Waldman, Bartlett, Campbell and Stekettee (1996) can prevent severe morbidity and complications, improve the health and nutritional status of the child during illness and directly prevent mortality. FCPs also focus on prevention, timely and appropriate action at the peripheral or grass root level of health care and provided by mothers and or caretakers to improve survival and enhance healthy growth and development of children less than 5 years of age thus reducing mortality.

WHO and UNICEF (1998) identified twelve FCPs considered to be of key importance in order to ensure survival, reduce morbidity and promote healthy growth and development among young children. Eleven of these practices relate to the provision of good home care for the child while the twelfth practice ensures that the mother receives adequate antenatal care to enable a newborn child get the best start in life. The WHO and UNICEF advanced FCPs to include presenting children as scheduled to complete a full course of immunizations (BCG, DPT, OPV and measles vaccines) before their first birthday, breastfeeding infants exclusively for six months, starting at six months of age to feed children with freshly prepared energy and nutrient rich complementary foods, while continuing to breastfeed up to two years or longer, ensuring that children received

adequate amount of micronutrients (vitamin A, iron and zinc in particular) either in their diet or through supplementation, disposing faeces safely and washing hands after defecation before preparing meals and before feeding children and protecting children in malaria endemic areas, by ensuring that they sleep under insecticide treated bed nets. Other FCPs are the need to continue feeding and offering more fluids including breast milk to children when they are sick, giving sick children appropriate home treatment for infections, recognizing when sick children need treatment outside the home and seeking care from appropriate providers, following the health worker's advice about treatment, follow-up and referral, promoting mental and social development by responding to a child's needs for care, and through talking, playing and providing a stimulating environment, and ensuring that every pregnant woman has antenatal care.

Furthermore, UNICEF (2001) reported that additional four groups of practices are adopted by UNICEF/ESARO, WHO/AFRO and the NGOs after a meeting in Durban South Africa in 2000. These practices include preventing child abuse and neglect, and taking appropriate actions when it has occurred, adopting and sustaining appropriate behaviours regarding HIV/AIDS prevention and care for the sick and orphans, ensuring that men actively participate in the provision of child care and are involved in reproductive health initiatives and preventing and providing appropriate treatment for child injuries. The third practice as indicated above is excluded from the study because it involves men and men are outside the scope of the study.

The fifteen FCPs were adopted in this study because these practices are globally identified and agreed upon by major partners in family and child health such as UNICEF, WHO, World Bank, USAID, DFID, BASIC, PVOs/NGOs, UNICEF/ESARO, and WHO/AFRO (Steinwand, 2001; Hill, Kirkwood & Edmond, 2004; UNICEF, 2001). These recognized practices of mothers, families and community, according to Waldman, Bartlett, Campbell and Stekette (1996) are critical to preventing infant and child morbidity and mortality. A close examination of the fifteen listed practices could reveal a number of simple and low-cost strategies which if implemented in the home can lead to improvement in child survival, growth and development in any setting. This is significant because the first level of child care is the home. Consequently, it can be reasoned that what happens in the household and community levels are the proximate determinants of favourable healthy outcome (World Bank, 2000).

Mosley and Waters (1996) identified the family as the primary locus of health care with the mother as the primary producer of health. They added that the mother's time, energy, knowledge, skills and her own health along with the resources on her command are critical for the survival and healthy development of each child during the first few years of life. Momoh (1988) noted that childcare practices are primary responsibility of mothers. The practices mothers adopt affect the style and quality of care given to children.

In recognition of this truth, mothers should be well oriented to know what necessary care to provide the child for health promotion. Consequently, FCPs of IMCI provide the mothers the opportunity for providing good home care for children particularly for the prevention and treatment of the five conditions ( i.e., acute respiratory infections, diarrhea, malaria, measles and malnutrition) which are the major causes of child death. Provision of the above care by the mothers will invariably promote survival, growth and development of the child. This situation can be facilitated by initiating effective adoption of the key childcare practices in the families and communities in Enugu State where the present study was conducted.

Theoretically, the study is based on models, which have been developed and used to study child survival in the past. The child right convention (CRC) identified survival, healthy growth and development as the right of a child. This survival, according to Waldman, Bartlett, Campbell and Stekettee (1996), is a guide that distinguishes between preventive behaviour and care-seeking behaviour, that is, how to manage childhood illnesses in the home and when to seek for care outside. Mosley and Chen (1984) postulated that this survival is anchored on the control of five proximate determinants or bio-social processes which include maternal factor, environmental contamination, nutrient deficiency, injury and personal illness control. This model provides a basis for clear understanding the underlying social and demographic variables involved in child survival.

The framework of Mosley and Chen (1984) and the pathway to survival of Waldman, Bartlett, Campbell and Stekettee (1996) are applied in this study because they provide an opportunity for the identification of a range of low-cost technologies, which if adopted by mothers in Enugu State will ensure significant improvement in FCPs for child SGD.

Regrettably, Sanghvi and Murray (1997) observed that mothers or caretakers do not adopt behaviour that will prevent infant and childhood health problems before they arise. Such behaviour as children not being properly cared for at home when they become sick, poor care-seeking practices, poor hygiene practices and inappropriate

feeding practices. In addition, most mothers do not present their children to complete the full course of immunization.

Lambrechts, Bryce and Orinda (1999) asserted that no strategy for improving child health and development will be effective unless it addresses the behaviour of families and communities following from the assertion. It can be noted that families and communities have the responsibility to take decisions and actions that will improve their children's survival, growth and development. Such decisions and actions include exclusive breastfeeding for six months, proper hygiene practices, using insecticide treated bed nets to prevent malaria, among others. Thus any attempt to promote childcare practices need to be done within the family and community.

The problem of the study therefore is that while there is evidence that most mothers in places other than Enugu State adopt skeletal aspects of the FCPs, the situation might be worse than what one may imagine about the FCPs in the area under survey. Therefore, identifying the status of the practice in Enugu State is in essence the focus of the study. Two research questions that guided the study are stated as follows: 1. What are the FCPs adopted by mothers in Enugu State and 2. What is the extent of mothers' adoption of FCPs in Enugu State?

## **2. Methods**

### *2.1 Participant and Setting*

Between January and May, 2014 a cross-sectional survey was carried out among a sample of 2400 mothers of child bearing age (15-49 years) drawn randomly from three urban and three rural local government areas (LGAs) out of seventeen LGAs in Enugu State using the multi-stage sampling procedure. At any stage in the procedure an appropriate sampling technique was used.

### *2.2 Instrumentation*

The instrument used for data collection was a 68-item self-structured family and community practice questionnaire (FCPQ). The 68-item of FCPQ was meant to elicit information on FCPs and extent of adoption of FCPs by mothers. The respondents were required to respond to "yes" or "no" options in order to elicit information on FCPs adopted by mothers. The respondents were also required to respond to a very great extent (VGE); to a great extent (GE); to a less extent (LE) and to a very less extent (VLE), in order to elicit information on the extent of adoption of the FCPs.

Five experts in Health Education and Measurement and Evaluation from one university in Enugu State validated the FCPQ. Thirty mothers of child-bearing age selected from two LGAs not included in the study were used to establish the reliability of the FCPQ using two statistical tools namely: Kuder Richardson formula 20 (K-R 20) and Cronbach alpha co-efficient formula. The first was used in determining the reliability co-efficient of the FCPs for child SGD adopted by the respondents and Cronbach alpha was used to determine the reliability co-efficient of the extent of adoption of the practices. Each sub-scale of the instrument yielded a reliability co-efficient of  $r = 0.76$  and  $r = 0.68$ , respectively.

### *2.3 Data Collection*

Administration of the instrument was carried out on house-to-house basis by six trained research assistants who were closely supervised by the researchers. The research assistants were indigenes of the LGAs used in the study and this facilitated access to the mothers. The purpose of the study was explained to the mothers and instruction on how to complete the questionnaire was given to them. Thereafter, the questionnaire was administered on the mothers. Illiterate mothers were asked questions on the subject matter based on the questionnaire. The research assistants assisted them to enter their responses in the questionnaire. The data collection lasted 20 weeks.

### *2.4 Data Analysis*

The returned copies of the questionnaire were cross-checked for completeness of responses. Copies that had incomplete responses were discarded. Out of 2400 copies of the questionnaire distributed, 1969 copies, representing 82% return rate, were used for data analysis by employing the Statistical Package for Social Sciences (SPSS) version 20 for windows. Analysis was done using percentages and means. Percentages were used to answer the research questions on adoption of FCPs and means were used for extent of adoption of the practices. The criterion for deciding whether a practice was adopted by the respondents was based on WHO

(1997) International standard cut-off of 50% and in answering the research question on extent of practice, a mean ( $\bar{x}$ ) of 2.1-3.0 implied that mothers adopted FCPs to a great extent (GE); 1.1-2.0 implied that mothers adopted FCPs to a less extent (LE) and 0.1-1.0 implied that mothers adopted FCPs a very less extent (VLE).

### 3. Results

What are the FCPs adopted by the mothers in Enugu State? Data answering the above research question are contained in Tables 1-5.

Table 1: **Immunization, Breastfeeding and complementary feeding practices for child SGD adopted by mothers in Enugu State**

| Immunization, Breastfeeding and Complementary Feeding Practices                            | Responses   |             |
|--|-------------|-------------|
|  | <i>f</i>    | %           |
| <b>Immunization</b>  |             |             |
| Give BCG at birth  | 1693        | 86.0        |
| Completed DPT and OPV for all babies by their 14 <sup>th</sup> month                       | 1343        | 68.2        |
| Completed measles vaccines for each baby before 12 <sup>th</sup> month                     | 1265        | 64.2        |
| Completed hepatitis B for each baby before 12 <sup>th</sup> month                          | 1038        | 52.2        |
| Completed yellow fever vaccine for each baby before 12 <sup>th</sup> month                 | 1022        | 61.9        |
| <b>Cluster Overall</b>   | <b>1290</b> | <b>65.5</b> |
| <b>Breastfeeding</b>   |             |             |
| Exclusive breastfeeding for 4-6 months   | 1197        | 60.8        |
| Breastfeeding on demand  | 1057        | 53.7        |
| Stop breastfeeding baby at the age of 24 month   | 849         | 43.1        |
| <b>Cluster Overall</b>   | <b>1048</b> | <b>53.2</b> |
| <b>Complementary feeding</b>   |             |             |
| Start introducing other foods whenever babies are between 4-6 months                       | 1359        | 69.0        |
| Combine breastfeeding and other foods up to 24 months                                      | 729         | 37.0        |
| Give babies nutrient-rich foods such as cereal, liver, fish, vegetables, egg, and plantain | 1513        | 76.8        |
| <b>Cluster Overall</b>   | <b>1372</b> | <b>69.7</b> |

Table 1 shows that 86.0% mothers in Enugu State give their children BCG at birth, 68.2% completed DPT and OPV for all babies, 64.7% completed measles vaccines for each baby before 12<sup>th</sup> month, 52.7% completed hepatitis vaccine for each baby before 12<sup>th</sup> month and 51.9% completed yellow fever vaccine for each baby before 12<sup>th</sup> month. The above cluster result indicates that 65.5% mothers adopted immunization practices as a component of FCPs for child SGD. Table 1 further shows that 60.8% of the mothers in Enugu State breastfed their babies exclusively for 4-6 months, 53.7% breastfed on demand and 43.1% stop breastfeeding baby at the age of 24 months. The cluster result implies that 53.2% mothers adopted breastfeeding practices for child SGD. The Table further shows that 69.0% mothers in Enugu State started to introduced other foods whenever babies are between 4-6 months, 76.8% gave babies nutrient-rich foods. Furthermore, the Table shows that 37.0% mothers combined breastfeeding and other foods up to 24 months. The cluster result indicates that 69.7% mothers adopted complementary feeding practices. The above cluster overall results could suggest that mothers in Enugu State adopted immunization, breastfeeding and complementary feeding practices as component of FCPs for Child SGD.



**Table 2: Micro- nutrient, hygiene and insecticide treated bed practices for child SGD adopted by mothers in Enugu State**

| <b>Micro-nutrient, Hygiene and Insecticide Treated Bed nets Practices</b>                    | <b>Responses</b> |             |
|--|------------------|-------------|
|  | <i>f</i>         | <i>%</i>    |
| <b>Micro-nutrients</b>   |                  |             |
| Give babies vitamin A supplement during immunization   | 1436             | 72.9        |
| Give babies food rich in vitamin A such as green vegetables, palm oil, fish, milk and fruits | 1320             | 67.0        |
| Give babies food rich in zinc such as meat, liver, milk, soybean milk and cereals            | 1259             | 63.9        |
| Give babies food rich in iron such as plantain, liver, meat, egg and green vegetable         | 965              | 49.0        |
| Prepare babies food with iodized salt  | 1379             | 70.0        |
| <b>Cluster Overall</b>   | <b>1797</b>      | <b>65.9</b> |
| <b>Hygiene</b>   |                  |             |
| Boil and filter babies water before drinking   | 904              | 45.9        |
| Wash hands with soap and water after cleaning-up baby and disposing its faeces               | 942              | 47.8        |
| Wash hands with soap and water before preparing babies food                                  | 1123             | 57.0        |
| Wash hand with soap and water before feeding baby  | 845              | 42.9        |
| Dispose baby's faeces in a toilet facility   | 1340             | 68.1        |
| <b>Cluster Overall</b>   | <b>946</b>       | <b>48.0</b> |
| <b>Insecticide Treated Bed nets</b>  |                  |             |
| Protect babies from mosquitoes by using ITN regularly  | 1042             | 52.9        |
| Make sure bed nets are not torn  | 813              | 41.3        |
| Re-treated bed nets at an interval of 6 months   | 700              | 35.6        |
| <b>Cluster Overall</b>   | <b>823</b>       | <b>41.8</b> |

Table 2 shows that giving babies vitamin A supplement during immunization was a common practice among 72.9% mothers in Enugu State. The results show that 67.0% mothers give babies food rich in vitamin A, such as green vegetables palm oil, fish, milk, and fruits. About 63.9% gave babies food rich in zinc such as meat, liver and milk. Overall 65.9% mothers adopt micro-nutrient practices. Furthermore, Table 2 shows that 45.9% mothers boil and filtered babies' water before drinking, 47.8% wash hands with soap and water after cleaning baby and disposing its faeces. About 68.1% mothers dispose baby's faeces in a toilet facility and 42.9% wash hands with soap water before feeding baby. The table also shows that 52.9% mothers protect their babies from mosquitoes by using insecticide treated bed nets regularly, 41.3% make sure bed nets are not torn and 700(35%) re-treat bed nets at interval of 6 months. Overall, the results show that 48.0% and 41.8% suggest that majority of the mothers in Enugu state do not commonly adopt hygiene and use of insecticide treated bed nets practices respectively for child SGD.

**Table 3: Introduction of more food and fluid when children are sick, appropriate home treatment for infection, and recognize need for treatment outside the home practices for child SGD adopted by mothers in Enugu State**

| <b>More food and fluid when children are sick, Home treatment and Need for treatment outside the home practices</b> | <b>Responses</b> |             |
|---|------------------|-------------|
|   | <i>f</i>         | <i>%</i>    |
| <b>More food and fluid when children are sick</b>   |                  |             |
| Give babies more fluids such as breast milk, glucose, water and pap at frequent interval when they become sick      | 1456             | 73.9        |
| Give babies more nourishing food when they become sick  | 1374             | 69.8        |
| Encourage babies to eat or drink when they are sick   | 1470             | 74.7        |
| <b>Cluster Overall</b>  | <b>1467</b>      | <b>74.5</b> |
| <b>Home treatment</b>   |                  |             |
| Give ORT when babies have diarrhea  | 1263             | 64.1        |
| Give babies chloroquine and paracetamol at home immediately they experience fever                                   | 1220             | 62.0        |
| <b>Cluster Overall</b>  | <b>1496</b>      | <b>76.0</b> |
| <b>Need for treatment outside the home</b>  |                  |             |
| Visit doctor at the health facility if baby's fever refuses to stop after home treatment                            | 1566             | 79.5        |
| Visit a nurse at the health facility if baby's fever refuses to stop  | 1352             | 68.7        |
| Seek care from a patent medicine dealer immediately I notice that my baby is sick                                   | 1019             | 51.8        |
| Wait to get support from husband before seeking care whenever my baby is sick                                       | 703              | 35.7        |
| <b>Cluster Overall</b>  | <b>1438</b>      | <b>73.0</b> |

Table 3 shows that 73.9% mothers give babies more fluids such as breast milk, glucose, water and pap at frequent intervals when they become sick, 69.8% give babies more nourishing food when they become sick and 74.7% encourage babies to eat or drink when they are sick. The table also shows that 64.1% mothers give ORT when babies have diarrhea and 62.0% mothers give babies chloroquine and paracetamol at home immediately they experience fever. The table further shows that 79.5% mothers visit doctors at the health facility if their babies fever refuses to stop after home treatment, 68.7% visit a nurse at the health facility if babies fever refuses to stop, 51.8% seek care from a patent medicine dealer immediately they notice that babies are sick and 35.7% wait to get support from their husband before seeking care from a health provider when their babies are sick. Overall, the results could suggest that 73.0% mothers in Enugu State adopted giving of more food and fluid when children are sick, Home treatment for infection and recognize need for treatment outside the home and seek care from appropriate health provider practices for child SGD.

**Table 4: Adherence to Treatment Regimen, Follow-up and Referral, Promotion of Mental and Social Development and Antenatal Practices for Child SGD Adopted by Mothers in Enugu State**

| <b>Adherence to treatment, follow-up and referral, Promotion of mental and social development and Antenatal care Practices</b> | <b>Responses</b> |             |
|--|------------------|-------------|
|  | <i>f</i>         | <i>%</i>    |
| <b>Adherence to treatment, follow-up and referral</b>  |                  |             |
| Give babies drugs according to health workers instructions   | 1564             | 79.4        |
| Take baby back to health worker for check-up   | 1322             | 67.1        |
| Comply with health workers advice to take baby to another hospital   | 1451             | 73.7        |
| <b>Cluster Overall</b>   | <b>1505</b>      | <b>76.4</b> |
| <b>Promotion of mental and social development</b>  |                  |             |
| Respond to baby's cries and needs promptly   | 1532             | 77.8        |
| Provide babies with playing materials ( eg. Toys)  | 1313             | 66.7        |
| Play with babies verbally by talking to them   | 1516             | 77.0        |
| <b>Cluster Overall</b>   | <b>1523</b>      | <b>77.3</b> |
| <b>Antenatal care</b>  |                  |             |
| Received antenatal at health facility at least 4 times before delivery   | 1383             | 70.2        |
| Received 3 doses of TT during antenatal clinic   | 1048             | 53.2        |
| Received education on nutrition and care of new born at antenatal clinic   | 1544             | 78.4        |
| <b>Cluster Overall</b>   | <b>1407</b>      | <b>71.5</b> |

Table 4 shows that 79.4% mothers give babies drugs according to health workers instructions, 67.1% take babies back to health workers for check-up and 73.7% comply with health workers advice to take baby to another hospital. The table also shows that 77.8% mothers respond to baby's cries and needs promptly, 66.7% provide babies with playing materials and 77.0% play with their babies verbally by talking to them. The table further reveals that 70.2% mothers receive antenatal care at health facility at least 4 times before delivery, 53.2% receive three doses of tetanus toxoid during antenatal clinic and 78.4% receive education on nutrition and care of new born at antenatal clinic. Overall, results could suggest that 71.5% of the mothers in Enugu State adopt adherence to treatment regimen, follow-up and referral, promotion of mental and social development and antenatal care practices for child SGD.



**Table 5: Childhood HIV/AIDS, Child Abuse and Childhood Injuries Prevention Practices for Child SGD Adopted by Mothers in Enugu State**

| Childhood HIV/AIDS, Child Abuse and Childhood injuries Prevention Practices           | Responses   |             |
|---|-------------|-------------|
|   | <i>f</i>    | %           |
| <b>Childhood HIV and AIDS Prevention</b>  |             |             |
| Screened for HIV during pregnancy   | 1162        | 59.0        |
| Will stop breastfeeding immediately I am diagnosed HIV positive                       | 870         | 44.2        |
| Take anti-retroviral drugs to prevent baby contracting HIV                            | 1378        | 70.0        |
| Accept caesarean delivery to prevent baby contracting HIV                             | 910         | 46.2        |
| Avoid using unsterilized needles and razors to prevent my babies from contracting HIV | 1498        | 76.1        |
| <b>Cluster Overall</b>  | <b>1150</b> | <b>58.4</b> |
| <b>Child Abuse Prevention</b>   |             |             |
| Protect babies from abuse by providing their basic needs(eg, food, clothing)          | 1790        | 90.9        |
| Caution babies when they misbehave  | 1775        | 90.1        |
| Treat babies when injuries occur to them  | 1387        | 70.4        |
| <b>Cluster Overall</b>  | <b>1775</b> | <b>90.1</b> |
| <b>Childhood Injuries Prevention</b>  |             |             |
| Watch babies closely to prevent them from getting injured                             | 1239        | 62.9        |
| Keep drug and chemical out of baby's reach  | 1456        | 73.9        |
| Prevention babies from playing near fire  | 1517        | 77.0        |
| <b>Cluster Overall</b>  | <b>1481</b> | <b>75.5</b> |

Table 5 shows that 59.0% mothers are screen for HIV during pregnancy, 70.0% stop breastfeeding immediately they are diagnosed HIV positive and 76.1% avoid using unsterilized needles and razors to prevent babies from contracting HIV. The table also shows that taking anti-retroviral drugs to prevent babies from contracting HIV 44.2% and accepting caesarean delivery to prevent baby contracting HIV, 46.2% are not commonly adopted practices. The table further shows that 90.9% mothers protect babies from abuse by providing their basic needs, 90.1% caution babies when they misbehave and 70.4% treat babies when injuries occur to them. Furthermore, the table shows that 62.9% mothers watch their babies closely to prevent them from getting injury, 73.9% keep drugs and chemical out of babies reach and 77.0% prevent babies from playing near fire. Overall, the result could suggest that 75.5% of the mothers in Enugu State adopt childhood HIV prevention, child abuse, and childhood injuries prevention practices for child SGD.

### Research Question Two

What is the extent of mothers' adoption of FCPs in Enugu State? The data answering the above research question are contained in Table 6.

Table 6: Extent of mothers' adoption of FCPs in Enugu State

| FCPs  | $\bar{x}$   | SD          | Dec. |
|---|-------------|-------------|------|
| Completed full course of immunization for my babies   | 2.24        | 0.67        | GE   |
| Breastfed my babies exclusively for 4-6 months  | 2.10        | 0.75        | GE   |
| Introduced complementary feeding when babies are six months                                       | 2.20        | 0.70        | GE   |
| Give babies micro-nutrient such as vitamin A, Iron and Zinc                                       | 2.18        | 0.74        | LE   |
| Use insecticide treated bed nets to protect babies from malaria                                   | 1.18        | 0.80        | LE   |
| Adopt proper hygiene practices such as proper faeces disposal, and hand washing practices         | 1.08        | 0.80        | LE   |
| Give babies more food and fluid when they are sick  | 2.18        | 0.73        | GE   |
| Use proper home treatment when babies have infection such as diarrhea and malaria                 | 2.12        | 0.73        | GE   |
| Seek care from appropriate health provider when baby's illness does not respond to home treatment | 2.18        | 0.68        | GE   |
| Comply with health workers advice about treatment, check-up and referral                          | 2.27        | 0.65        | GE   |
| Respond to babies needs for care such as talking and providing stimulating environment            | 2.24        | 0.64        | GE   |
| Receive adequate antenatal care from health care provider   | 2.22        | 0.70        | GE   |
| Protect babies against HIV/AIDS   | 2.32        | 0.62        | GE   |
| Protect babies against abuse  | 2.40        | 0.63        | GE   |
| Protect babies against injuries   | 2.32        | 0.62        | GE   |
| <b>Overall Mean</b>   | <b>2.22</b> | <b>0.45</b> | GE   |

Table 6 shows that each of the FCPs, except use of insecticide treated bed nets ( $\bar{x} = 1.18 < 2.0$ ), ( $\bar{x} = 1.18 < 2.0$ ) have a mean score range between ( $\bar{x} = 2.08-2.40$ ) which is greater than the criterion mean ( $\bar{x}$ ) of 2.0 set for the study. Overall, the results shows that the extent of mothers' adoption of FCPs in Enugu State has a mean ( $\bar{x}$ ) of 2.08, which is greater than the criterion mean ( $\bar{x}$ ) of 2.0 set for the study. This suggests that mothers in Enugu State adopted the FCPs for child SGD. However, the standard deviations in the specific practices and overall indicate that the responses of the mothers cluster around the related mean.

#### 4. Discussion

Results in Table 1 indicated that more than two-third (65.5%) of mothers in Enugu state completed the full course immunization for their babies before their first birthday. Furthermore, the findings in Table 6 showed that the mothers adopted immunization practices to a great extent ( $\bar{x} = 2.24$ ). Since more than two-third of the mothers completed the full course immunization for their babies before their first birthday. It could imply that greater number of children 0-12 months in the study area was protected from vaccine preventable diseases. The result was expected in consideration of the effort of the Federal Government of Nigeria (FGN) to achieve high immunization coverage as an important disease control strategy. It could be remembered that in 1997, the FGN established national programme on immunization (NPI) as the programme of the Federal Ministry of Health (FMOH) with the mandate to effectively control the occurrence of the six childhood killer diseases, plus yellow fever and hepatitis B through immunization and provision of free vaccines to all population at risk of vaccine preventable diseases (WHO, 1999). The increase in the adoption of immunization practices may also be as the result of creation of awareness and conviction of the mothers to accept and use the provided services through television, radio jingles, posters, pamphlets and the flag of immunization ceremony performed by the then government of governor Chimaroke Nnamani in 2006. The high adoption of the practice may also be a result of House-to-House immunization campaign programme carried out in the state. However, this result of the present study conflicted National Population Commission & ORC Macro (2004) report that only 13% of children ages 12-13 months could be considered fully immunized in Nigeria (i.e., have received BCG, three doses each of the DPT and polio excluding the polio given at birth and measles vaccines).

Although, the result of the present study contradicted the report on the status of immunization practices in Nigeria, it also serves as predictor for the improvement of the practices in the future. This is really significant

because immunization is a low cost health intervention for preventing the major childhood infections and a fundamental right of every child (WHO, 2003).

The results in Table 1 showed that 53.2% of the mothers adopted breast feeding practices. Furthermore, the findings in Table 6 showed that mothers studied adopted breastfeeding practices to a great extent ( $\bar{x}=2.10$ ). This could imply that breastfeeding was an accepted practice. These results were not surprising considering the fact that breastfeeding has been universally accepted as the best and natural way of feeding babies worldwide. The general adoption may probably be as a result of numerous advantages of breastfeeding to both infants and mothers. Such advantages include protection against infection and reduction in mortality, especially, in areas where microbial contamination of foods and fluids is common (National Population Commission, 2002).

Interestingly, a close examination of breastfeeding practices as presented in Table 1 could reveal that less than half (43.1%) of the mothers in the study area stopped breastfeeding at the age of 24 months. This could imply that the more mothers considered breastfeeding beyond first year of life as important. This is was expected and tend to be in line with WHO and UNICEF (2001) recommendation that children should continue to be breastfed up to two years and beyond due to high protein content of breast milk.

Furthermore, results of the study in Table 1 showed that 69.7% of the mothers adopted complementary feeding practices. Fortunately, the data in Table 6 showed that mothers in Enugu State adopted complementary feeding when babies are 4 to 6 months to a great extent ( $\bar{x} = 2.20$ ). This implies that giving complementary foods from 4-6 months was an accepted practice among the mothers in the study area. This result was not surprising in view of WHO and UNICEF (2000) recommendation that children should start receiving energy and nutrient-rich complementary foods from 4-6 months. The finding contravenes Wise, Tefft, Kelly and Staatz's (2002) findings that only 25% of the mothers introduced food to their child at the recommended time and over 32% of children in the sample did not receive solid foods until after 10 months. This practice of early or delay in introducing complementary food is a major problem because of the risk of diseases particularly diarrheal diseases from contaminated complementary foods and the risk of growth retardation and malnutrition.

A critical examination of the results on complementary feeding practices in Table 1 also showed that although the extent of the practice of complementary feeding from 4-6 months among mothers in the study group may seem high 69.0% but combining breastfeeding and other foods up to 24 months was low (37.0%). This result was not expected considering the abundant evidence that breast milk continues to be a source of key nutrients such as vitamin A, calcium, protein and protection against infectious diseases throughout the second year of life (Brown, Allen, Dewey, 1995; Brown, Dewey, & Allen, 1998; Mahalanabis, 1991). In agreement with the above, WHO (1998) pointed out that adequate complementary feeding in combination with breastfeeding could prevent or treat malnutrition. The practice, according to WHO (1998), could also save 800,000 lives per year. It is still surprising to observe that mothers in Enugu State did not adopt the practice of combining breastfeeding and other foods up to 24 months despite the abundant evidence of its advantages. This scenario has implication for health policy makers and health provides especially, public health educators and nutritionists to reach out to mothers in the community in order to create worthwhile awareness of proper child feeding practices.

Results in Table 2 revealed that 65.9% of the mothers in Enugu State adopted micro-nutrient practices. In addition, Table 6 indicated that mothers in the study area adopted micro-nutrient practices to a great extent ( $\bar{x} = 2.18$ ). The result could imply that the practice of giving children adequate amount of micro-nutrient, either in their diet or through supplementation was accepted practices among the mothers. The result was not surprising since Nigerian government linked vitamin A supplementation with National Immunization Programmes. The Nigerian government also adopted a new strategy, that is, fortification of three staple foods with vitamin A such as flour, sugar and vegetable oil and fortification of salt with iodine to enable children consume vitamin A and iodine in their diet. Despite, the effort of the National government, Vitamin and Mineral Damage Assessment (2004) reported that only 27% of Nigerian children under-five years received vitamin A supplements. Although the present findings contradicted the report on vitamin A supplement cited above, it could serve as a predicator for the improvement of this situation in the future. This has implication for health professionals such as community health workers and health educators to reach out to the mothers in the community for education on the importance of vitamin A supplement in the growth and development of their children.

Results in Table 2 further showed that unlike vitamin A supplementation, mothers paid less attention to giving children food rich in iron (49.0%) such as plantain, meat, liver, egg and green vegetable. This may probably be because foods rich in iron are relatively expensive and the belief that children have no need for such food items. Unfortunately, Nigeria government did not link supplementation or fortification of any staple food with iron in

any of its funded programmes. The result was unexpected and particularly implicative for health planners and providers.

Results on hygiene practices in Table 2 indicated that less than half (48.0%) of the mothers in the study adopted proper hygiene practices. Results in Table 6 showed that mothers adopted proper hygiene practice to a less extent ( $\bar{x} = 1.08$ ). The results imply that majority of the mothers neglected this practices and this has serious implication for health. Furthermore, results in Table 2 showed that less than 50% of the mothers boiled and filtered babies' drinking water. This finding was surprising and unexpected, considering the fact that domestic water is among the most significant factors associated with high prevalence of diarrheal diseases in Nigerian communities (UNICEF, 2001). The adoption of the practice of boiling and filtering of drinking water makes the water free from pathogens and also prevents the incidence of diarrheal disease. The results further showed that less than 50% of the mothers did not wash their hands with soap and water after cleaning up and disposing baby's faeces and before feeding baby. This finding was not surprising, due to the general negative attitude of people towards health matters and inadequate awareness of causes of health problems such as diarrhea and worm infestation. The above finding is in agreement with the findings of Omotade, Kayode, Adeyemo, and Oladepo (1995) who reported that less than one-third (29%) the proportion of mothers they studied washed their hands after disposing of children's faeces. This may probably be because mothers do not know that hands are important vector in the transmission of infection from faeces and other contaminated materials and, that washing of hands with soap and water can block pathogen transmission. The findings have implication for hygiene education among child-bearing mothers at antenatal and child welfare clinic. It is hoped that intensification of hygiene education will equip the mothers with the knowledge on prevention of diseases through proper hygiene practices.

Results in Table 2 further showed that 41.8% of the mothers adopted insecticide treated bed net practices for preventing malaria. Furthermore, the results in Table 6 showed that mothers in Enugu State adopted ITNs practices to a less extent ( $\bar{x} = 1.18$ ). The results have practical policy implications for malaria control in the state. The findings of the study are not expected considering WHO and UNICEF intensified efforts at reducing childhood morbidity and mortality resulting from malaria through developing a strategy, 'Roll Back' malaria programme; the intervention programme to control malaria through the use of ITNs. The Abuja declaration on Roll Back Malaria by African Heads of State in April 2001 set the goal of increasing coverage and use of ITNs to 60% of the target groups. Moreover, Lengeler (2002) postulated that the correct use of ITNs could save up to six lives for every 1,000 protected children less than five years of age. He also estimated that 34.5 lives would be saved per 1,000 infants protected with bed nets if re-treated twice a year with pyrethrin. Unfortunately, a close examination of the results in Table 2 could show that only 35.6% of the mothers re-treated bed nets twice a year. The non-adoption of this practice by the mothers may be attributed to lack of knowledge of the importance of treatment and its effectiveness in preventing malaria. This finding suggests urgent need for health education campaign to promote the use of ITN with emphasis on the protective effect of ITN and retreating bed nets with pyrethrin at least twice a year.

The findings in Table 3 showed that majority (74.5%) of mothers offered more food and fluid when their children are sick as recommended by WHO and UNICEF to ensure child survival, healthy growth and development. Besides, the results in Table 6 showed that mothers in Enugu State adopted the practices of offering more food and fluid when children are sick to a great extent ( $\bar{x} = 2.18$ ). The above result could imply that most children were prevented from suffering dehydration and malnutrition during illness. This finding was not surprising because of the advocacy for continuing feeding and increasing fluid during sickness was added as one of the indicators of appropriate management of sick children at community and family level for survival, optimal growth and development of the child. Before this, withholding of food had been recommended by some medical personnel as a standard procedure (Victora, Bryce, Fontaine, & Monasch, 2000). The inclusion of this practice at family and community level for the management of childhood illnesses made it rather significant because of expert attestation that continuing feeding and increasing fluids during illness could prevent the occurrence of dehydration and reduce the nutritional deficiency during illness and thereby shortening the duration of the illness. Also the adoption of such a practice is significant because of the assertion that energy requirements are increased during illness but the energy and nutrient intake is decreased through anorexia, caregivers withholding of food and breast milk, loss of nutrients through vomiting, mucosal injury, increased gastro-intestinal transit times and impaired absorption during diarrheal episodes (Laney & Cohen, 1993; Piwoz, 1994). Continuing feeding and increasing fluids during illness could reduce the impact of protein, energy and malnutrition. Its promotion at family and community level is therefore a welcome development. It is considered worthwhile for health personnel at the grassroots level of care to encourage mothers and caregivers to continue to feed and increase fluid intake to sick children.

Findings on home treatment for infection as shown in Table 3 revealed that 76.0% of the mothers adopted home treatment practices. Furthermore, the results in Table 6 revealed that mothers in Enugu State adopted proper home treatment for infections such as diarrhea and malaria to a great extent ( $\bar{x} = 2.12$ ). The table also showed that 64.1% of the mothers gave ORT when babies have diarrhea and 62.0% of the mothers also gave chloroquine and paracetamol at home immediately children experienced fever. These results imply that an encouraging proportion of mothers often treat children's illness such as diarrhea and malaria at home. This finding is good news as prompt treatment has been associated with a lower mortality risk (D'Alessandro et al., 1997). It is striking to note, that the finding may be as a result of the efforts made by WHO and UNICEF to popularize appropriate home treatment for childhood infections. Similar results were reported by Barros, Victora, Forsberg, Maranhao, Stegeman, Gonzalez-Richmond, Martins, Neuman, McAuliffe and Branco (1991) regarding the use of home treatment in North east Brazil. The findings of the present study reinforced the importance of home treatment. Although, the study did not focus attention on early recognition of signs and symptoms and correct dosage of anti-malaria drugs, the findings have implications for education of mothers on early recognition of signs and symptoms and correct drug dosage.

The results on recognizing the need for treatment outside the home as shown in Table 3 indicated that 73.0% of the mothers adopted the practice and 79.5% of the mothers consulted the doctors at health facility. However, the results in Table 6 indicated that mothers sought care from appropriate health provider when baby's illness did not respond to home treatment to a great extent ( $\bar{x} = 2.18$ ). However, that a good proportion of the mothers sought care from appropriate health provider when baby's illness did not respond to home treatment should be a plausible development in management of childhood illnesses. This confirms the postulation of Brugha and Chandramoham (1999) and McCombie (1996) that the recent introduction of IMCI lay more emphasis on the training of care givers/mothers on early recognition of danger signs and the need for prompt and improved quality assessment and care at primary health facilities. However, it is interesting to note that the finding could imply reduction in child mortality in Enugu State due to preventable and curable childhood illnesses. This is in agreement with WHO's (1991) report that prompt and appropriate care could reduce by 20% child deaths due to acute respiratory infections.

The results in Table 4 showed that majority (76.4%) of the mothers adopted adherence to treatment regimen, follow-up and referral practices. Furthermore, Table 6 showed that mothers adopted adherence to treatment regimen follow-up and referral practices to a great extent ( $\bar{x} = 2.27$ ). These findings are not surprising because of the evidence-based guidelines for treatment, follow-up and referral of children which are now made available as part of IMCI. This guideline is relatively a recent innovation in the management of childhood illnesses. This innovation is significant because of expert attestation that sick children recover quickly and completely when mothers or caretakers follow health workers advice on treatment, follow-up and referral.

The results in Table 4 also indicated that majority (77.3%) of the mothers promote mental and social development of babies by responding to their needs for care such as talking, playing and providing stimulating environment. It is interesting to note that a good proportion of mothers in the area of study responded to babies needs for care such as talking and providing stimulating environment to a great extent ( $\bar{x} = 2.24$ ). The results in the table also showed that 77.8% of the mothers responded to baby's cries and needs promptly. These results could imply that most mothers met their children's basic needs such as food, safety, warmth, affection and stimulation which directly or indirectly facilitate the physical, social and psychological development of their children. The results were not surprising since responsive mothers could detect the child signals and respond appropriately to them in line with meeting the child's needs. This is attested by Engle and Riccui (1995) that responsive mothers/caregivers, who are aware of their children's signals and needs, can interpret them accurately and respond to them promptly and appropriately. Furthermore, adoption of such a practice is significant in family and community because of the assertion that children who have secure attachment early in life make better social adjustment as they grow up and perform better in school (Teo, 1996).

On the other hand, when care is inadequate, unresponsive or inconsistent, young children experience tension and stress which can have adverse effect on the brain and can result to developmental delays (Gunnar, 1998). The findings have implications for mothers/caregivers who bear the direct responsibility for child care and rearing especially at a very tender age to be oriented in basic qualities or skills such as sensitivity and responsiveness that determine effective care giving, as well as specific care practices.

Furthermore, the results in Table 4 showed that majority (70.2%) of the mothers received antenatal care from health facility at least four times before delivery, 53.2% received two doses of tetanus toxoid during antenatal clinic and 78.4% received education on nutrition and care of new born at the clinic. The overall mothers' adoption of antenatal care practices was 71.5%. In addition, findings on the extent of mothers' adoption of the



FPCs in Enugu State shown in Table 6 showed that the mothers indicated that they received adequate antenatal care from a health care provider to a great extent ( $\bar{x} = 2.22$ ). This result could imply reduced risk of maternal and child mortality in the study area. The result was not surprising because of accessibility and availability of health care facilities in the area and the availability of various health programmes through the media.

It is interesting to note that the mothers in the study met the National Maternity Care Guidelines target of at least four antenatal visits for each pregnancy. The result showed that more mothers attend the number of antenatal visits that are considered to be desirable in the guidelines. This could imply that a good number of the mothers provided themselves the opportunity of preventive interventions such as tetanus toxoid injections, routine drugs and education about their nutrition, safe delivery and post partum care (Govindasamy & Ramesh, 1997).

A critical observation of Table 4 could reveal that a little above 50% of the mothers received two doses of tetanus toxoid. The result is in line with the findings of UNICEF (2001) that less than half of the mothers in the North East and North West of Nigeria received two doses of tetanus toxoid (TT) during pregnancy. Such a picture tends to support the high level of mortality from neonatal tetanus in Nigeria. This situation needs urgent health intervention and has important implication for health policy makers, particularly public health educators for education of mothers on the values of TT during pregnancy.

The findings in Table 5 indicated that 58.4% of the mothers adopted childhood HIV/AIDS prevention practices. Furthermore, the results in Table 6 showed that the mothers adopted childhood HIV/AIDS prevention practices to a great extent ( $\bar{x} = 2.32$ ). This result is promising and could imply that childhood HIV/AIDS infection may be reduced effectively since the mothers in the area of study adopted the available prevention strategies or intervention approaches. The result is in line with UNAID (2001) assertion that if intervention approaches are used worldwide, they could save the lives of approximately 300,000 children per year. The interesting result may be attributed to recent national efforts to raise awareness through media campaign.

A close examination of Table 5 could show that only 44.2% of the mothers would stop breastfeeding if they were diagnosed HIV positive. This means that greater number of children of HIV positive mothers might get HIV through breastfeeding. This may be, because breastfeeding is a culturally acceptable feeding practice in the study area and in Nigeria. Avoiding breastfeeding in this part of the country may not be practicable because it is a socially acceptable practice and, deviation from the practice may be frowned at and may raise suspicion among family members. It may also lead to stigmatization and discrimination against the mother. Secondly, mothers believe that breast milk substitute has its own disadvantage such as not being socially acceptable, costly but not safe (FMOH, 2005). This situation calls for health intervention programmes by health personnel and health educators to propagate the knowledge of childhood HIV/AIDS transmission and HIV/AIDS prevention strategies to mothers in the study area. This may be done during health talks at child welfare and antenatal clinics.

The results of the study indicated that the high proportion (90.1%) of the mothers prevented their children from abuse. This suggests that the mothers in the study area were prepared and willing to meet their children's basic needs such as food, clothing, shelter, cleanliness, medical care and protecting them from harm (Table 5). In addition, Table 6 indicated that mothers in Enugu State adopted this practice to a great extent ( $\bar{x} = 2.40$ ). This could imply that mothers provided adequate emotional, psychological and physical development for their children. The results could also imply that mothers provided their children affection, love, care and discipline in order to develop into acceptable adults. The above findings coincided with the views of Bethea (1999) that a loving, caring and stimulating environment during the first three years of a child's life is important for proper development and explained that children who received maltreatment in their early years may actually have sub-optimal brain development later in life.

Finally, results in Table 5 showed that majority (62.9%) of the mothers watched their babies closely to prevent them from getting injured, 73.9% kept drugs and chemical out of baby's reach and 77.0% prevented babies from playing near fire. Overall, Table 5 showed that 75.7% mothers adopted childhood injury prevention practices. Furthermore, results in Table 6 on adoption of FPCs in Enugu State showed that mothers prevented childhood injuries to a great extent ( $\bar{x} = 2.32$ ). The results imply that the mothers provided acceptable supervision and care to their children. Peterson, Ewigman and Kivlaham (1993) confirmed that mother's supervision is an important determinant of child safety. They also agreed that children need constant supervision in most environments including the home. They explained that children need close supervision and care because they lack judgment and experience, and cannot avoid injury on their own. Therefore, it is necessary for care givers/mothers to care for them and keep them safe from injury. This finding has implication for caregivers'/mothers' orientation on injury consciousness and prevention practices and to emphasize childhood injury prevention in health education programmes of maternal and child health services.



## 5. Conclusion and Recommendation

In conclusion, the study exposed that mothers in Enugu State adopted FCPs, including completing full course of immunizations, breastfeeding, complementary feeding, giving adequate amount of micro-nutrients, offering more food and fluids including breast milk when children are sick, giving appropriate home treatment for infections, care-seeking from appropriate health provider, adherence to health workers' advice about treatment, follow-up and referral, promoting mental and social development, receiving antenatal care, childhood HIV/AIDS prevention, child abuse prevention and childhood injury prevention practices. But disposing faeces safely and washing of hands after defecation, before preparing meals and feeding children and sleeping under insecticide treated bed nets practices were commonly adopted practices. The study also revealed that mothers adopted all other practices to a great extent except proper hygiene and sleeping under insecticide treated bed nets that were adopted to a less extent. This has a serious health education implication. Therefore, there is urgent need to design awareness intervention programmes for mothers on the importance of proper hygiene practices and use of insecticide treated bed nets. It is recommended that appropriate information, education and communication (IEC) messages for promoting FCPs to ensure survival, promote healthy growth and development. There is need to develop a more effective means of imparting information to mothers, caretakers and the entire community on the needs and advantages of adoption of FCPs for child SGD to a less extent.

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