Parental Childcare Practices Related to Nutrition, Psychosocial Support, Water Sanitation and Hygiene in Kanam Communities, Plateau State, Nigeria

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ABSTRACT

Parental childcare practices involve the interactions, behaviours, emotions, knowledge, beliefs, attitudes, and practices associated with providing children with health, nutrition, responsive caregiving, safety and security, and early learning. However, this study examined parental childcare practices related to nutrition, psychosocial support, water sanitation and hygiene in Kanam communities in Plateau State, Nigeria. Three objectives and one hypothesis were formulated for the survey research. Four primary health centres were purposively selected to draw up the 697 respondents (511 females and 187 males). Structured questionnaires and checklists on childcare practices related to the study were developed and administered to the parents. The major findings indicated that childcare practices on nutrition were grossly below the requirements, psychosocial support practices were average, and WASH practices were below average. The findings also established that parental childcare practices related to nutrition, psychosocial, and WASH have a significant difference. Recommendations include stakeholders intensifying good nutrition knowledge provision for caregivers nursing children below age five, parents improving their interaction with their children using play materials, and the government reintroducing environmental inspection officers in every community to enforce WASH practices.

Keywords: Nutrition, parental practices, psychosocial support, water sanitation hygiene.

1. Introduction

Parental practices are complex processes that differ from one society to another based on cultural and environmental factors. From the general perspective, it simply means the interactions, behaviours, emotions, knowledge, beliefs, attitudes, and practices associated with providing children health, nutrition, responsive caregiving, safety and security, and early learning. These practices include breastfeeding, food preparation, psychosocial stimulation and support. Also, hygiene behaviours like a clean environment, provision of potable water, and safe and clean toilet facilities are included. These practices will require household time, attention, finances, and support to meet the growing child’s physical, mental, and social needs of parents or caregivers. Within the Nigerian setting, parenting not only applies to the child’s father and mother but also includes older siblings, grandparents, and other relatives who provide consistent care and play significant roles in the child’s upbringing.

Unfortunately, the father’s participation in childcare, which is as important as the mother’s, has been neglected, especially in developing countries like Nigeria. Therefore, it is important to stress some of their important roles. For example, the father-child connection offers physical and psychosocial assistance to mothers transitioning during the weaning periods, and recognising the role of the couple’s relationship in the overall well-being of both individuals and the family cannot be overlooked.
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Jacob et al. (2009) indicated that a father’s participation in childcare is associated with positive cognitive development and socio-behavioural outcomes for the child, such as improved weight gain in preterm infants, improved breastfeeding rates, higher receptive language skills and higher academic achievement. Furthermore, Kansiime et al. (2017) highlighted the roles of fathers in children’s upbringing, which include the decision-making process regarding the emotional well-being of infants and young children. They also offer physical, psychological, and financial support during breastfeeding and advocate for supporting and safeguarding infants for optimal growth. The father’s involvement in the upbringing of the child at the early stages helps in the child’s self-control and empathy with their peers and others and reduces depression, fear and self-doubt. It can also lead to greater career and economic success. Thuita et al. (2021) highlight the importance of engaging grandmothers’ roles as advice to support child nutrition and also expanding grandfathers’ roles through gender transformative activities.

From the various practices expected from the parents/caregivers, as earlier highlighted, nutrition is one of the topmost because of its role in the child’s overall development. This is why Islam et al. (2022) opined that parental practices in relation to nutrition should focus on age-appropriate balanced food provision, dietary diversity and parent-child engagement activities. However, these are not adequately provided in most developing countries, affecting the child’s growth and development and, in most cases, leading to malnutrition.

Malnutrition has been a major concern across the world because of its negative consequences on the children affected. Such children’s physical, social, emotional, and cognitive development are impeded, thereby limiting their capabilities to compete well with their peers. Jacob et al. (2023) established that improved nutrition, psychosocial support, water sanitation and hygiene for malnourished children below five years of age enhances their developmental status and growth. Unfortunately, efforts made to reverse the malnutrition status of most affected children over the years have not yielded the desired results, especially in developing and underdeveloped countries. This seemingly low progress has made these researchers ask many questions: Are parents aware that their children are malnourished? Do parents know the causes of malnutrition in their communities? Where they know, are their practices put in place to solve the malnutrition problem, or are they aggravating it? These are some of the concerns that this research attempts to address.

Examing available literature on parental practices in connection to nutrition shows that poor nutritional habits among parents play a role in developing health issues in children, especially in developing countries. Rahman et al. (2023). Millanzi et al. (2023) revealed that feeding practices were deemed unsatisfactory at 66.1%, 67.8% inadequate, and 32.2% minimum. Furthermore, the study revealed that 35.3% were less than the required standard of dietary diversity, while 31.5% were greater. Also, their findings show that caregivers provided group one food to 90.7% of children, and 59.1% did not offer snacks between meals. Another study by Birungi and Erialu (2022) shows that semi-solid foods were introduced to 95% of infants promptly; however, 4.43% were found to be nutritionally inadequate with low minimum dietary diversity. The implication of these findings on the children involved will manifest a high level of malnutrition.

Parental practices are not limited to nutrition alone but extend to psychosocial support of children and Water, Sanitation and Health (WASH). The quality of psychosocial support provided to the young child is reflected in the caregiver’s responsiveness, warmth and affection, involvement with the child, and encouragement of autonomy and exploration. There is considerable evidence to suggest that good psychosocial care is associated with positive behavioural outcomes in children and more favourable nutritional and growth outcomes, even within populations with nutritional and health risks (Engle & Ricciuti, 1995). Conversely, where such positive features of psychosocial care are greatly reduced or lacking, children from low-income families are also likely to be at increased risk of malnutrition.

The study of Engle and Ricciuti (1995), which was conducted in Baltimore among low-income families with children under five, indicated that those coming from homes characterised by generally inadequate overall mothering or childcare tended to be at greater nutritional risk (based on dietary intake and biochemical measures). Many correlational studies in developing countries have also linked inadequate psychosocial care and poor nutrition to health status. In one of the studies reported by Engle and Ricciuti (1995), children who were clinically malnourished sometimes in their first three years tended to come from homes scoring lower in childcare practices. Mothers of these children were also found to be more passive, less responsive to the child’s needs and less open to modernisation.

Similar characteristics reflecting relatively poor mothering competence for mothers of children who had been clinically malnourished were reported from Jamaica. These mothers tended to be passive, low self-esteem, and socially isolated. Data suggest that children hospitalised for clinical malnutrition early in life may have experienced less than optimal psychological caregiving. In the same vein, the findings of Skar et al. (2019) show improvement among 93.5% of the children categorised as malnourished before the intervention. Children’s self-reported data on strengths and difficulties suggest significant increases...
in psychosocial behaviour in the intervention group. Caregivers reported strengthened relationships, improved communication, and improved nutritional menus within the intervention centres.

In WASH practices, literature revealed an association between children's nutrition and water, sanitation and hygiene. Children in low-income countries, including Nigeria, face various interrelated problems, such as poor nutrition, inadequate water and sanitation, resulting in infections and growth and development impairments (Shrestha et al., 2020).

Furthermore, two billion people worldwide are infected with intestinal parasites, with the highest burden of this disease among children in resource-poor settings (Freeman et al., 2015). This indicates that caregivers’ access to safe water, proper sanitation and hygienic practices, which are fundamental to the growth and survival of children, have been compromised or downplayed. The study of Aleru et al. (2023) on WASH practices in Ibadan shows that the prevalence of stunting (44.0%), wasting (37.5%), and underweight (34.0%) were high among the children. Well (71.5%) and tap/borehole (74.0%) were the major sources of domestic and drinking water, respectively, and required 5–15 minutes (36.9%) to source. The occurrence of diarrhoea was high (48.5%) among the children, and access to unsafe water was significantly associated with child malnutrition.

Similarly, the study of Dharmalingam et al. (2023) on water, sanitation and hygiene practices of caregivers of under-five children in coastal areas of South India indicated that nearly 35% of the caregivers did not do anything to purify drinking water while only less than three-fourths of the study population followed proper water storage practices. Only 7.2% of caregivers always washed their hands after defecation. The WASH score increased significantly with the caregiver’s education. WASH practices were mostly poor for under-five children, with male caregivers having higher age and lower educational status. The findings of Marshak et al. (2017) reveal that households who reported not regularly cleaning the containers used for transporting water for household consumption were almost twice as likely to have a malnourished child. Households living in villages with larger concentrations of cattle and having more livestock sharing the same water sources for human consumption were significantly more likely to have malnourished children. However, cleaning the water container mediated the negative impact of living in a village with a large cattle concentration of waste.

From the preceding, one can state that parental practices concerning minimising malnutrition among children need to cover a wide range of areas and should be integrated. Therefore, this study investigated parental practices in Kanam communities to ascertain their level of compliance with nutritional practices based on WHO (2010) standards that state that to ensure a healthy lifestyle, eating a nutritious diet based on a variety of foods originated mainly from plants rather than animals, reducing fat, sugar and salt intake and exercising are necessary for children. The study also investigated parents’ psychosocial practices regarding whether they meet the UNICEF, INEE (2016) standard that states that Psychosocial support practices should focus on children’s holistic development by recognising their multiple needs, including nurturing relationships, communication, play, and appropriate learning activities. Finally, WASH practices among parents in Kanam communities were also investigated to see if they meet the standards of FMWR et al. (2022). Their standards practices include ensuring access to clean and safe drinking water, proper sanitation facilities, and promoting hygiene education. The findings regarding the practices of parents in childcare in these communities will give parents and researchers a better insight into how to minimise cases of malnutrition in the area, if at all it is found there.

1.1. Purpose of the Study

This study aimed to examine parental childcare practices in terms of nutritional support, psychosocial stimulation, water sanitation and hygiene in Kanam communities. Specifically, the objectives of the study were:

1. To examine the childcare practices related to nutritional support by parents in Kanam communities,
2. To identify the psychosocial support practices by parents in Kanam communities,
3. To examine the water sanitation and hygiene practices by parents in Kanam communities.

1.2. Research Questions

1. What are the parental childcare practices related to nutritional support in Kanam communities?
2. What are the psychosocial stimulation support practices by parents in Kanam communities?
3. What are the water sanitation and hygiene practices of parents in Kanam communities?
1.3. Statement of the Hypothesis

There is no significant difference in the parental childcare practices in terms of nutritional support, psychosocial stimulation, water sanitation, and hygiene in Kanam communities.

2. Method

This study examined the parental childcare practices in terms of nutritional support, psychosocial stimulation, and water, sanitation and hygiene in Kanam communities. The survey design was employed to collect relevant data from the selected parents. From the total number of 51 Primary Health Care (PHC) Centres in Kanam Local Government, 4 were purposively selected based on distance and accessibility. From the 4 PHC centres selected, a total population of 697 parents were sampled based on their attendance at the various meetings held in the communities with the research team. From this number, 511 (73%) were females, while 187 (27%) were males. Structured questionnaires and checklists on childcare practices related to nutrition, psychosocial support, water sanitation and hygiene were developed and administered. Researchers and the eight trained research assistants administered the questionnaires and the checklists, which were collected back on the spot. SPSS software version 26 and Microsoft Excel were used for statistical analysis, while research questions were analysed using frequency and mean. A 2.50 decision point was used to determine the acceptability of the question items in the questionnaire. ANOVA was employed to test the hypotheses at a 0.05 level of significance.

3. Results

3.1. Parental Childcare Practices Related to Nutrition in Kanam Communities

Table 1 presents the parental childcare practices related to nutritional support in Kanam communities, Plateau State, Nigeria. Nine question items were presented to the respondents in the study. All the question items were rejected based on the 2.50 decision point set in the study. The result revealed that the childcare practice on nutrition is grossly below the requirement for effective growth and development needed by the children. Specifically, the children are not given adequate diet, no essential classes of foods, baby not being fed as demanded, and no adequate fleshy food like fish, meat and egg. Generally, the parental childcare practice related to nutrition was below expectations based on the respondent’s responses. The overall mean obtained was 1.95. Therefore, it can be deduced that parental childcare practice related to nutritional support in the study contributes to the poor nutritional status of the children.

<table>
<thead>
<tr>
<th>Parental care practices related to nutrition in Kanam LGA</th>
<th>Never</th>
<th>Sometimes</th>
<th>Often</th>
<th>Very often</th>
<th>Mean</th>
<th>Decision point</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The baby is fed several times a day.</td>
<td>2</td>
<td>38</td>
<td>36</td>
<td>1</td>
<td>2.47</td>
<td>Rejected</td>
</tr>
<tr>
<td>2. The baby is given minimum adequate diet.</td>
<td>14</td>
<td>33</td>
<td>26</td>
<td>3</td>
<td>2.24</td>
<td>Rejected</td>
</tr>
<tr>
<td>3. Infant babies are subjected to exclusive breastfeeding for six months.</td>
<td>41</td>
<td>20</td>
<td>15</td>
<td>1</td>
<td>1.69</td>
<td>Rejected</td>
</tr>
<tr>
<td>4. The child is fed with legumes, cereals, nuts and dairy products.</td>
<td>16</td>
<td>44</td>
<td>8</td>
<td>9</td>
<td>2.13</td>
<td>Rejected</td>
</tr>
<tr>
<td>5. The child is fed with vegetables and other essential classes of foods.</td>
<td>20</td>
<td>46</td>
<td>6</td>
<td>5</td>
<td>1.95</td>
<td>Rejected</td>
</tr>
<tr>
<td>6. The baby is given flesh food such as fish, meat and egg.</td>
<td>23</td>
<td>51</td>
<td>3</td>
<td>1</td>
<td>1.74</td>
<td>Rejected</td>
</tr>
<tr>
<td>7. Children are weaned to solid food after six months of birth.</td>
<td>34</td>
<td>29</td>
<td>6</td>
<td>8</td>
<td>1.84</td>
<td>Rejected</td>
</tr>
<tr>
<td>8. Complimenting breast milk with the mixture of pap and bought milk.</td>
<td>36</td>
<td>31</td>
<td>9</td>
<td>2</td>
<td>1.71</td>
<td>Rejected</td>
</tr>
<tr>
<td>9. Children are weaned to food like soyabeans, mixed with maize/millet/sorghum.</td>
<td>27</td>
<td>37</td>
<td>12</td>
<td>1</td>
<td>1.83</td>
<td>Rejected</td>
</tr>
<tr>
<td>Overall mean</td>
<td>1.95</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Rejected</td>
</tr>
</tbody>
</table>
Table II presents the psychosocial support practice by parents in Kanam communities. 7 question items were presented to the parent participants in the study. The result revealed that the psychosocial support practices were, on average, based on the overall mean of 2.51 from the parent’s response. This indicated that there is psychosocial support, but it is, on average, not adequate to enhance children’s developmental process due to certain constraints such as the lack of provision of play materials like toys and other play materials necessary for the children.

3.3. Water Sanitation and Hygiene Practices of Parents in Kanam Communities

Table III presents the parents’ practices of water sanitation and hygiene (WASH) in Kanam communities. 10 question items were presented to the participants in the study, 5 were rejected, while five were accepted. This implies that the practices related to WASH were below average, as the researchers observed. Hence, the result revealed that the practices related to WASH are not adequate to enhance the sanitation and hygiene required to prevent diseases in their respective homes.
### 3.4. Hypothesis Testing

We tested our hypothesis that there is no significant difference in the parental childcare practices related to nutritional support, psychosocial stimulation and water sanitation and hygiene in Kanam communities. The test result presents the significant difference in parental childcare practices related to nutrition, psychosocial support and water sanitation and hygiene in Kanam communities (see Table IV). The result revealed a significant difference in the childcare practices in the three areas examined in the study. A significant difference exists between nutrition practice and psychosocial support, as well as the cleaning of the environment based on the post-hoc test analysis. Therefore, the hypothesis was rejected, and it was established that there is a significant difference in parental childcare practice related to nutrition, psychosocial and water sanitation hygiene.

### 4. Discussion

This study has established some practices parents provide for their children in Kanam communities. Research question one revealed that childcare practices related to nutritional support for children are grossly below the WHO’s requirement for effective growth and development (2010). Specifically, the children are not given an adequate diet containing the essential foods classes. Also, it was revealed that babies are not being fed adequately as demanded, and when they are fed, there is inadequate fleshy food like fish, meat and eggs. The inadequacy of good nutrition for the children in the communities can lead to cases of malnutrition. The result agrees with Islam et al. (2022) and Millanzi et al. (2023), who asserted that parental childcare in relation to nutritional practice needs to focus on age-appropriate balanced food provision, dietary diversity and parent-child engagement activities.

Research question two of the study revealed that psychosocial support practices were, on average, based on the parents’ responses. This implies that psychosocial support is provided but not as high as expected based on the standards of INEE (2016). Therefore, psychosocial support is inadequate to enhance children’s developmental process due to certain constraints, such as the lack of play materials like toys and other necessary play materials. The implication of this is that a malnourished child will not be able to perform optimally due to the little deficiency in the psychosocial support being provided by the respective parents, and this may eventually affect the general activeness both socially, emotionally and intellectually as expected. This was in agreement with the findings of Skar et al. (2019), which show improvement among children categorised as malnourished when exposed to psychosocial support with a significant increase in psychosocial behaviours in the intervention group.

Finally, water sanitation and hygiene findings revealed that the practices related to this area were on average and, therefore, fell below FMWR et al. (2022) standards. Hence, water sanitation hygiene is inadequate and insufficient to prevent diseases in their respective homes. The implication is that insufficient water sanitation and hygiene practices can impair the child’s growth and development, eventually leading to malnutrition among children. This finding aligns with the study by Marshak et al. (2017), which shows that households without regularly clean containers used for transporting water for household consumption and those with too concentrations of cattle and having more livestock sharing the same water sources as for human consumption are likely to have a malnourished child.

### 5. Conclusion

In conclusion, this study revealed that childcare practices in terms of nutrition, psychosocial support, water sanitation, and hygiene of the parents in Kanam communities do not meet the required standards to enhance child development against malnutrition. The nutrition provided is with inadequate diet and insufficient to the demand of the child to enhance good nutrition outcomes. The play and comfort provided were inadequate, as well as the water sanitation hygiene because the water did not come from a clean source, and there was no adequate treatment to prevent diseases. The environments were not outrightly clean for child development.
6. RECOMMENDATIONS

Given the findings of this study, there is a need for stakeholders to intensify good nutrition knowledge provision for caregivers nursing children below age five in the areas to prevent malnutrition due to inadequate dietary provision. Moreover, the communities should improve their interaction with their children because improved psychosocial support enhances children’s development. As a matter of urgency, the government should reintroduce environmental inspection officers in every community in order to enforce water sanitation and hygiene in every home because this will eventually reduce cases of poor hygiene and malnutrition among children in rural communities. Finally, where cases of malnutrition are established in these communities, an integrated approach involving nutrition, psychosocial support, and WASH should be adopted.

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CONFLICT OF INTEREST

The authors declare that they do not have any conflict of interest.

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