NURSING PRACTICES IN CHILD CARE CONSULTATION IN THE ESTRATÉGIA SAÚDE DA FAMÍLIA

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ABSTRACT

Objective: to analyze the care actions performed by nurses during child care consultations.

Method: an observational, quantitative study with 31 nurses who performed child care consultations in the Estratégia Saúde da Família of a municipality of Paraíba (Brazil). Three randomized consultations were performed by each participating nurse, totaling 93 consultations between March and July 2016, through a previously structured checklist based on the guidelines of national child health care policies containing the care actions that should be implemented by nurses. The analysis was made through descriptive statistics and chi-square test, with a significance level of 5% and cluster analysis.

Results: the most common dimensions of care performed were the evaluation of immunization and iron and vitamin A supplementation; anamnesis, welcoming, physical examination/neuropsychomotor development and health education were the actions least performed by the nurses.

Conclusion: nursing care in child care consultation falls short of what is established by the child health care guidelines. Continuing education interventions to qualify nurses for comprehensive child care can overcome these shortcomings.


A PRÁTICA DO ENFERMEIRO NA CONSULTA DE PUERICULTURA NA ESTRATÉGIA SAÚDE DA FAMÍLIA

RESUMO

Objetivo: analisar as ações de cuidado realizadas pelo enfermeiro durante as consultas de puericultura.

Método: estudo observacional, quantitativo, realizado com 31 enfermeiros que realizavam consulta de puericultura na Estratégia Saúde da Família de um município da Paraíba (Brasil). Foram observadas três consultas aleatórias por enfermeiro participante, totalizando 93 consultas entre março e julho de 2016, por meio de um checklist previamente estruturado, baseado nas diretrizes das políticas nacionais de atenção à saúde da criança, contendo as ações de cuidados que deveriam ser implementadas pelos enfermeiros. A análise foi feita por meio de estatística descritiva, teste qui-quadrado, com nível de significância de 5% e análise de agrupamento.

Resultados: as dimensões do cuidado realizadas em maior proporção foram a avaliação da imunização e as suplementações de ferro e vitamina A; a anamnese, o acolhimento, o exame físico/desenvolvimento neuropsychomotor e a educação em saúde foram as ações menos efetivadas pelos enfermeiros.

Conclusão: o cuidado dos enfermeiros na consulta de puericultura está aquém do estabelecido pelas diretrizes de atenção à saúde da criança. Ações de educação permanente para qualificar os enfermeiros para o cuidado integral à criança podem superar essas lacunas.

LA PRÁCTICA DEL ENFERMERO EN LA CONSULTA DE PUERICULTURA
EN LA ESTRATÉGIA SAÚDE DA FAMÍLIA

INTRODUCTION

Children’s health care has been gaining priority among Brazilian public policies, focusing on overcoming the biomedical model and promoting the integral care of children.1 This is due to efforts made to integrate the care network, with the delivery of programs and policies to promote and protect children’s health, as advocated by the National Policy on Comprehensive Care for Children’s Health (NPCCCH).2

This policy includes, among the guidelines, strategic axes for comprehensive and integrated care aiming at full childhood development3 and designates Primary Health Care (PHC) as the coordinator of care in the Health Care Networks (HCN).2 PHC, through the expansion of the Estratégia Saúde da Família (Family Health Strategy - FHS), has contributed to reducing mortality in children under five years of age due to preventable causes, such as nutritional deficiencies and anemia, in black and brown populations.4

In this sense, doctors and nurses working at the FHS should be responsible for the follow-up of the child through childcare consultation, fulfilling the recommendations by the Ministry of Health (MH): seven consultations in the first year of life, two consultations in the second year, and one consultation from three to nine years old.5 Child care consultation is a powerful tool for the integral care of the child because it is a dynamic and low complexity activity that allows the implementation of children’s health in the FHS.5 When incorporated into the nurses’ work process, the process is referred to as nursing consultation of children up to two years old and is characterized as a priority activity among the numerous nursing assignments in PHC.7 However, its effectiveness represents a challenge in the Family Health Units (FHU)8 in view of the difficulties in implementing programmatic actions.9

In the FHS, the nurses’ work process is broad and reactive, and in the health care of the child, it involves a set of actions to deal with the spontaneous demand derived from the health needs of the child and his/her family. To implement this practice, the care given to the child should be planned and scheduled in the live work perspective, at the expense of dead work, with a predominance of soft or relational technologies, complemented by soft-hard and hard technologies.10

It should be emphasized, however, that the literature indicates that these programmatic actions are related to the curative and fragmented action of the nurse, centered on the complaint presented, with an appreciation of the disease, and not of the practice of prevention of diseases and promotion of health.6 In addition, the monitoring of the child is performed in an incipient way, without considering the mother’s perception about the child’s growth and development, and restricts health education actions regarding breastfeeding and hygiene.8

However, the most concerning aspect is the lack of training of the nurses who assist the child in the child care consultation.11 Therefore, it is necessary to investigate child care nursing consultations to identify the actions taken by the nurse to provide comprehensive care to the child in the PHC as an initial step to reorganize the work process and ensure the follow-up of child care. In view of the...
above, the following questions emerged: how are nurses conducting the child care consultation? Do the nurses implement actions directed towards an integral follow-up of the child’s health? To respond to the proposed questions, this study aims to analyze the care actions performed by nurses during child care consultations.

METHODS

This is an exploratory, observational and descriptive study that uses a quantitative approach. The study was conducted from March to July 2016 in Family Health Units of João Pessoa-PB (Brazil). This municipality has 196 Family Health Teams (FHT), organized in integrated units, which include three to four teams in the same physical and organizational space, and isolated units with only one working team. The FHTs are distributed territorially in five Sanitary Districts (SDs).

The study scenario was one of the SDs, selected from among the five SDs of the municipality. At the time the research was developed, the District included 49 FHTs. The sample consisted of 31 nurses who worked in the FHTs, carried out childcare consultations for children up to two years of age and worked at the FHS for a minimum period of six months. A total of 18 nurses were excluded who, at the time of data collection, were away from work due to vacation or leave of absence and those who did not have children to attend on the days scheduled for the child care consultation.

To identify the actions taken during the consultations and the data recorded by the nurses in the Child Health Record (CHR) and the medical record, as advocated in the guidelines of the MH, three visits of children up to two years of age for each participating nurse were randomly observed; therefore, a total of 93 observations using a previously structured check-list were made. The data were collected following the routine of the service, and most of the consultations were carried out through spontaneous demand. For this reason, in some units, it was not possible to observe the three queries on the same day.

The consultations lasted 15 minutes on average, and in addition to the observation, some consultations were recorded using an MP3 player with the authorization of the nurses participating in the study to more accurately assess the information collected. The instrument used to evaluate the consultations was validated using the Cronbach alpha test, which demonstrated the reliability of the questionnaire elaborated based on the guidelines established by the MH. The reliability measure of the instrument was 0.815, with a 95% confidence interval.

For each observed consultation, representative measures of the implemented actions were obtained. Thus, for the three consultations observed by each nurse, three measures representative of the actions implemented for each dimension of care were obtained. To avoid single-measure bias, which might not be representative of the nurses’ practice, the three measurement were represented by the average of the three visits, which resulted in the overall index (OI) of each dimension. The results closer to 100 the result represented better performances.

A scoring system was developed that was assigned the value 1 when the procedure was performed; zero when it was not performed; and 3 in the cases inapplicable to the procedure; values of 3 did not enter in the score formation. The score was converted into a percentage so that it was compared on the same scale for each of the dimensions.

The scoring and classification system was structured based on the recommendations of national policies on child health care. Thus, the technical aspects of the consultation were evaluated in each consultation with a score on a scale of zero to 100, which numerically reflects the
degree of proximity between what was done in the consultation and what could have been done. This means that the scoring system aggregates information that measures the degree of percentage proximity between the idealized consultation and what has actually been perceived. It is worth mentioning that initially, some consultations were made to calibrate the metric of the instrument. Eight consultations were sufficient to compose the final version of the scoring system, which were not used in the final sample.

The categories of each dimension of care were classified as satisfactory, relatively satisfactory, and unsatisfactory and had as reference the 25th and 75th percentile measures, according to their OI. Categories were classified as unsatisfactory when the observed variable of each nurse obtained an overall index with a percentile below 25; relatively satisfactory, for values between the 25th and 75th percentiles; and satisfactory for values above the 75th percentile.

To classify the nurses' performance according to the OI presented by the dimensions implemented in the child care consultation, the cluster analysis method was used, involving hierarchical clustering, the Euclidean distance and the average linkage measure, as illustrated by the dendrogram. In this procedure, nurses were classified according to their mean into three groups: low performance, OI=26.70; moderate performance, OI=51.17; and acceptable performance, OI=76.49. The degree of OI requirement was above 75%, which corresponds to the nurses who implemented the greatest number of actions recommended by the guidelines for child care during the consultation. It should be emphasized that the quality of the child care consultation was not evaluated, merely the care actions implemented by the nurses in the consultation.

The data were entered in the Excel program, version 2007, and analyzed using the Statistical Package Social Science (SPSS), version 20.0 for students, which allowed the elaboration of the statistical analysis used. Mean, standard deviations and proportions were also evaluated, and to verify the association between the variables, the chi-square association test was used, with a significance level of 5% or less to reject the null hypothesis.

The research was developed according to the norms of Resolution 466/12 of the National Health Council and approved by the Research Ethics Committee under the opinion nº 0096/12 and registered by the CAAE nº 02584212300005188. All the research participants signed the Free and Informed Consent Form.

RESULTS

Of the 31 nurses observed, only two were male, 13 had more than 20 years of training, and 16 worked in the FHS for approximately 11 to 20 years. With respect to specializations, 26 were experts in Family Health and/or Public Health, one in pediatrics, and others in different subjects; only one nurse did not have a Specialization Course.

In Table 1, which includes the descriptive measures of the dimensions of care and the overall index on a scale of zero to one hundred, no dimension averaged over 70%. This table includes n=31, corresponding to the number of nurses participating in the study, because the three observations for each sample unit of their consultations were converted into an average of the practice of each nurse for the statistical analysis.

Table 1 - Descriptive measures of the dimensions of care in the practice of nurses during child care consultation and the overall index. João Pessoa, PB, Brazil, 2016. (n=31)

<table>
<thead>
<tr>
<th>Dimensions of care</th>
<th>Mean</th>
<th>SD</th>
<th>Unsatisfactory &lt;P25†</th>
<th>Relatively satisfactory</th>
<th>Satisfactory &gt;P75‡</th>
<th>P-value §</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>n</td>
<td></td>
<td>n</td>
<td></td>
</tr>
<tr>
<td>Welcoming</td>
<td>37.99</td>
<td>21.4</td>
<td>8 (25.8)</td>
<td>15 (48.4)</td>
<td>8 (25.8)</td>
<td>0.206</td>
</tr>
<tr>
<td>Anamnesis</td>
<td>42.20</td>
<td>10.64</td>
<td>11 (35.4)</td>
<td>10 (32.3)</td>
<td>10 (32.3)</td>
<td>0.968</td>
</tr>
<tr>
<td>Growth assessment</td>
<td>60.92</td>
<td>23.28</td>
<td>9 (29.0)</td>
<td>16 (51.6)</td>
<td>6 (19.4)</td>
<td>0.078</td>
</tr>
</tbody>
</table>

"n and % of the nurse’s action during consultation"
With respect to the professionals who reached the satisfactory classification in each dimension, a low percentage reached the 75th percentile. Most professionals implemented the dimensions in a relatively satisfactory way; that is, in the consultations, they only complete part of the actions for each dimension.

With respect to the OI, the study indicated that the mean indices of each dimension of care reached 44.07%. There was a significant difference in the health education dimension compared with the proportions of each dimension of care with the categories ‘satisfactory’, ‘relatively satisfactory’ and ‘unsatisfactory’.

Figure 1 depicts a vertical dendrogram with the nurses’ clustered according to their performance as evaluated by the OI of the implemented dimensions. There are distinct branches representing the three performance classifications.

Group 1 refers to the last branch on the right side, which includes only one nurse with an acceptable performance, i.e., an OI exceeding the requirement (75%). Group 2 includes nine nurses who performed poorly, and group 3 includes 21 nurses who demonstrated a moderate performance.

Table 1: n and % of the nurse’s action during consultation

<table>
<thead>
<tr>
<th>Dimensions of care</th>
<th>Mean</th>
<th>SD*</th>
<th>Un satisfactory &lt;P25†</th>
<th>Relatively satisfactory</th>
<th>Satisfactory &gt;P75‡</th>
<th>p-value§</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vaccine status assessment and supplementation</td>
<td>66.90</td>
<td>26.74</td>
<td>8 (25.8)</td>
<td>11 (35.5)</td>
<td>12 (38.7)</td>
<td>0.657</td>
</tr>
<tr>
<td>Health education</td>
<td>23.95</td>
<td>11.89</td>
<td>4 (12.9)</td>
<td>20 (64.5)</td>
<td>7 (22.6)</td>
<td>0.001</td>
</tr>
<tr>
<td>Physical examination</td>
<td>28.67</td>
<td>24.12</td>
<td>11 (35.5)</td>
<td>13 (41.9)</td>
<td>7 (22.6)</td>
<td>0.405</td>
</tr>
<tr>
<td>Medical record entries in CHR††</td>
<td>47.85</td>
<td>20.70</td>
<td>8 (25.8)</td>
<td>15 (48.4)</td>
<td>8 (25.8)</td>
<td>0.206</td>
</tr>
<tr>
<td>Overall index</td>
<td>44.07</td>
<td>14.16</td>
<td>8 (25.8)</td>
<td>16 (51.6)</td>
<td>7 (22.6)</td>
<td>0.095</td>
</tr>
</tbody>
</table>

*SD: standard deviation; † 25th Percentile of OI; ‡ 75th Percentile of the OI; §p-value of the chi-square test; †† Child Health Notebook.

Figure 1 – Dendrogram classification of nurses by overall index (OI). João Pessoa, PB, Brazil, 2016
DISCUSSION

The results indicated that based on the OI of each dimension, nurses performed care actions in a relatively satisfactory manner, which left gaps in child care. This may indicate that existing challenges with respect to comprehensive child care distance nurses’ practice from what is recommended by MH guidelines as well as the needs of the child’s and family’s health.

Thus, this finding corroborates the study, which reported fragility in the nurses’ care in child care consultation, with a deficit in the actions implemented in the FHU, which may jeopardize the monitoring of child growth and development. In this context, it is pertinent to reflect on the influence of the fragility in the assistance for misinterpretations of problems that involve the health of the child.

Regarding the total OI of the dimensions implemented, there was a value (44.07%) below the expected minimum set at 75%. This suggests that the care offered by these professionals fails to meet the demands of care. Therefore, the children served by these nurses may be vulnerable to situations of risk, as their health status is not being evaluated in its entirety. This finding requires the attention of nurses involved in child care because good quality care has the potential to reduce the incidence of problems, to monitor growth and development and to provide a healthy life for the child.

Thus, this context prompts reflections on the quality of care that nurses offer to the child in primary health care services due to their capacity to reduce infant morbidity and mortality because they are fundamental to the family health team and responsible for the consultation of the child. In addition, the systematic follow-up of the nursing consultation is essential, especially in childhood, because of the child’s vulnerability.

When analyzing the live work of the nurse, the main actions performed in the consultations of puericulture are directed at vaccination, iron and vitamin A supplementation and the evaluation of the child’s growth, whereas other preventive actions that promote health represent less than 50% of the work. In this context, health education is the least accomplished dimension, and soft-hard and hard technologies predominate in nursing work. These findings corroborate a previous study that identified a greater evaluation of vaccination and growth in the child care consultations conducted at the FHS, which suggests that the assistance offered to the child is primarily aimed at monitoring these actions.

It is pertinent to highlight that the provision of actions, such as immunization and follow-up of child growth by professionals in PHC units, can reduce the number of hospitalizations of children due to preventable causes, such as respiratory, skin and gastrointestinal infections responsible for high hospitalization rates, especially in the first year of life, as demonstrated in a study conducted in Australia. However, the child care consultation cannot be limited to the evaluation of growth. Therefore, it is an opportune moment for comprehensive child care, considering the child’s environment and the needs for the full development of her potentialities.

In addition, child growth is a dynamic process and an important indicator of child health. For this reason, the fundamental parameters to identify risks of infant mortality, such as weight, height, head circumference and body mass index, need to be monitored in the care given to the child.

With respect to immunization and supplementation with iron and vitamin A, essential actions to promote health and prevent diseases, the MH guideline emphasizes that these actions should be completed by professionals in the process of evaluation of the child and guiding parents in the child care consultation.

It should be emphasized that iron supplementation and the assessment of nutritional status are potential solutions to improve the growth and development of children, as indicated in a study conducted in China. Another study performed in Germany, the Netherlands and the United Kingdom, states that this supplementation must be implemented in light of the prevalence of iron deficiency in children 12 to 36 months of age.

With regard to the child’s vaccination status, the study demonstrated that the nurse considers the verification of the vaccination schedule and the guidelines related to vaccination to be actions of great importance in the consultation because they contribute to the reach of vaccination coverage. Unlike the results presented here, another study concluded that FHS nurses did not assess vaccination status in any of the visits, nor did they record the evaluation of the vaccine schedule in the medical record.

The positive result concerning supplementation may be related to the fact that in the municipality of João Pessoa, a nurse has the autonomy to prescribe the supplementation of iron for children, according to recommendations of the National Program of Iron Supplementation, contrary to the
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Nurse autonomy is an outcome that needs to be stimulated and valued. Thus, when prescribing medicines, as it occurs in countries that adopt advanced nursing practice, the nurse must follow institutional protocols, and when caring for a child, one must appropriate the assistance and educational actions to instill trust and security in mothers. These actions lead to the appreciation of nurses’ work.

The registry of medical records and of the CHR was one of the three dimensions most performed by the nurses in the consultations observed. This may indicate that the nurses understand that it is important to record the follow-up of children’s growth and development and the potential to identify any changes in the child’s health indicators. Studies indicate that, in the child’s consultation, the nurse is the health professional who most often fills in the findings in the CHR and that this instrument affects the assistance offered to the child. Therefore, a lack of records in the consultation compromises the nurse’s care because it does not make it clear whether the actions were implemented during the consultation.

With respect to welcoming and anamnesis, the data reveal that these dimensions are poorly used in the consultation, thereby compromising the effectiveness of the soft technologies in the nurses’ work. These are important interaction tools during the consultation and have the potential to strengthen the bond between the professional and the child’s family. The purpose of these actions is to build relationships of trust through dialog and qualified attention; the information collected is used to identify risk situations that compromise the health and development of the child.

The dimensions related to physical examination/neuropsychomotor development and health education obtained the lowest proportions of implementation. With respect to the physical examination, the on-screen study diverges from another that reported this action as the step most frequently performed in the child care consultation. The result presented here may indicate the commitment of nurses to the child, as the lack of physical examination suggests that the consultations are not systematized, although this is a fundamental condition to improve the quality of care that is given to the child.

In this study, assessment of neuropsychomotor development was performed together with the physical examination of the child and, in the anamnesis, the mother was asked about the development of her child, as stated in the MH guideline. Therefore, the results of this study indicate that despite their great importance for the prevention of diseases, many children attending the health centers in the PHC are at risk of developmental delay, and one of the risk factors includes living conditions.

A study conducted in South Korea demonstrated that professionals should detect early changes in the development of children belonging to low-income families because the environmental factors that surround children living in poverty influence their development. It is therefore necessary to rethink the assistance that is given to needy children in the PHC in evaluating their development.

With regard to the health education dimension, the low proportion following guidelines for mothers/guardians during the child care consultation corroborates other studies. This suggests that there is a gap regarding health promotion actions in nursing practice because childcare is an opportune moment to perform educational and preventive actions and emphasizes that soft technologies are infrequently used in professional practice. An intervention study performed in Guinea-Bissau concluded that children from families who were guided by health professionals became less ill because the family members knew how to take better care of them and treat their morbidities.

Despite the importance of all the dimensions evaluated, the results presented in the overall index dendrogram emphasize that only one nurse achieved acceptable care performance by implementing, in a greater proportion, the actions recommended by the guidelines of the national policies on child health care.

This finding is worrying, as dissatisfaction with the services provided may contribute to mothers devaluing the nursing consultation for the care of the children’s health, and unsatisfactory communication during the consultation may interfere with the improvement of the child’s condition in the event of a disease and may push the child away from the healthcare team and lead to hospitalization for preventable causes. In addition, a study reported that the inadequate performance of professionals with poor technical quality was related to avoidable deaths of children.

In this study, the presented result stimulates reflections about the factors present in the work process in the FHS that favor the poor performance of the nurses in the care provided, such as work overload, excess demand, low salaries, administrative activities and excessive work hours. It is also
noted that the deficit of physicians working in the FHS increases the workload of nurses and interferes in the definitions of the roles that will be performed in the service.34

Although it was not the focus of the study, the physical structure impairment and the lack of equipment necessary for the child care consultation, as well as the lack of training, are mentioned in the literature as factors that directly influence the quality of care offered to the child.11,27 Another important aspect highlighted in the literature is the lack of protocols to organize the nurses’ work process in the consultation of child care in the municipalities, which discourages the implementation of recommended actions.22-23

In this context, it is necessary to have a different view on the training of nurses for the comprehensive care of the child in order to address all the dimensions recommended by the governmental guidelines for the consultations of childcare. Furthermore, it is necessary to train professionals who work in the PHC to understand the work process at this level of care and its attributions, thereby promoting individual or collective work of good quality. This is justified because a study demonstrated that professionals working in PHC are not well prepared in undergraduate school, and continuing education not is part of this context.36

The main limitation of this study is the generalizability of the research, as it was restricted to a SD of the municipality. However, it is believed that the number of consultations observed is representative for evaluating the care offered to the child, and the instrument contemplates all the actions necessary for this purpose, as determined by the guidelines of the national policies on child health care.

CONCLUSION

The results of the study indicate that only one nurse had an acceptable performance in care. Therefore, the health care of the child, in the context studied, remains less than expected. The fragility of the assistance that the nurse offers the child was also evident through the undereffectiveness of care actions in the childcare consultations. Physical examination/neuropsychomotor development and health education were less implemented in everyday practices.

Thus, it is necessary to train nurses to improve the care they provide to the child population and to improve their practices with actions that promote health and prevent diseases, as well as to promote the use of light technologies in the care of children. Another aspect identified in the study concerns the need to adopt, in the municipality, a protocol for care related to child care consultation, with the objective of organizing care and standardizing the actions developed in the nurses’ work, which will be reflected in the quality of the assistance.

The objective of this study was to raise awareness among professionals and managers on the importance of improving the quality of care offered to children to promote healthy growth and development. Further studies are necessary to point the way to comprehensive care.

REFERENCES
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