Evaluation of nursing consultation structure for children in primary health care*

AVALIAÇÃO DA ESTRUTURA DESTINADA Á CONSULTA DE ENFERMAGEM À CRIANÇA NA ATENÇÃO BÁSICA

EVALUACIÓN DE LA ESTRUCTURA DESTINADA A LA CONSULTA DE ENFERMERÍA AL NIÑO EN LA ATENCIÓN BÁSICA

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ABSTRACT
The objective of this study was to evaluate the structure of primary care units of the family health program of the São Paulo municipal district to support child nursing consultation. Components of a structural and systematic evaluative process for health care services served as the conceptual framework for the study. A specific questionnaire, with established and documented content validity, was used to collect the data through direct systematic observation of the structure of primary care units in supporting 114 nursing consultations conducted by 14 registered nurses. Evaluation results of the primary care units’ physical structure, medical equipment, materials, supplies, and the qualifications of the registered nurses working in those primary care units were all satisfactory in meeting the majority of recommendations, policies, and regulatory measures.

KEY WORDS

RESUMO
Objetivou-se avaliar a qualidade da estrutura disponível para a consulta de enfermagem prestada à criança de até um ano de idade, em unidades básicas do Programa de Saúde da Família do Município de São Paulo. O referencial teórico contemplou componentes da abordagem de estrutura da concepção sistêmica da avaliação de serviços de saúde. Os dados foram coletados mediante observação sistematizada da estrutura existente para a realização de 114 consultas de enfermagem prestadas por 14 enfermeiras, utilizando um instrumento validado por 11 especialistas e aplicação de questionário respondido pelas enfermeiras. A avaliação tanto da área física, instalações e materiais, como da qualificação profissional dessas enfermeiras, foi considerada satisfatória por atender a grande maioria dos critérios normativos adotados.

DESCRIPTORES

RESUMEN
Se tomó como objetivo evaluar la calidad de la estructura disponible para la consulta de enfermería prestada a los niños de hasta un año de edad, en unidades básicas del Programa de Salud de la Familia del Municipio de São Paulo, Brasil. El referencial teórico contempló componentes del abordaje estructural de la concepción sistemática de evaluación de servicios de salud. Los datos fueron reco- gidos mediante observación sistematizada de la estructura existente para la realización de 114 consultas de enfermería prestadas por 14 enfermeras; utilizando un instrumento validado por 11 especialistas y la aplicación de un cuestionario respondido por las profesionales. La evaluación, tanto del área física, instalaciones y materiales como de la calificación profesional de esas enfermeras fue considerada satisfactoria, en razón de responder a la mayoría de los criterios normativos adoptados.

DESCRIPTORES

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INTRODUCTION

Primary health care is understood as a set of actions that aim at promoting health, preventing illnesses, and the individual and collective treatment and rehabilitation, involving administrative and sanitary practices of democratic and participative characters. It is situated in the first level of care of health systems, and has the capacity to solve an array of needs that surpass the individual curative intervention and are referred to as basic health needs\(^1\)\(^-\)\(^2\).

This level of hierarchized care should be organized in municipalities, be founded on the knowledge of the real local situation and understand the delivery of service to the population according to its particularities, resulting from the determinants of the health-disease process\(^3\).

The Family Health Program (FHP) consists of a strategy to restructure health services, making it possible to redirect the care model of the unique Health System (the Brazilian Public Health System, Sistema Único de Saúde), having primary health care actions as the guiding axis\(^2\).

In this Program, health care is delivered by family health teams, in a way that it is integrated with the community. The nurse, one of the professionals comprising this team, performs the nursing consultation, which has contributed with the solvability and integral-ity of health actions, making it possible to evaluate the health condition of the individual during his or her life cycle, with a view to controlling the evolution of some transmissible and chronic-degenerative diseases\(^3\).

To perform this activity, in the basic health care perspective, it is essential that nurses know the main diseases and illnesses affecting that specific population, as well as the groups that are more susceptible, the most affected age groups, most relevant risks and the effective mechanisms to control each case\(^3\).

The expansion of the FHP promoted an increase in the implementation of nursing consultations in basic health units, due to the hiring of a greater number of nurses. The doctorate research that evaluated the quality of nursing consultations to children performed in Basic Family Health Units\(^9\), which provided the theoretical and methodological support for this study, was founded on the systemic concept of health service evaluations\(^5\), using the domains of structure and process approaches to evaluate the quality of nursing consultations to children with less than one year of age.

Therefore, in this article, an excerpt of the referred research, the structure size was selected, focusing on the aspects related with the physical area and facilities, and the material and human resources necessary to provide nursing consultations in child care.

The following objective was, therefore, established for the present study: to evaluate the quality of the structure available for performing nursing consultations for children younger than one year of age at Basic Health Units of the Family Health Program in the city of São Paulo.

METHOD

This is a descriptive, evaluative study.

The field of study and the population to be investigated were selected according to the following inclusion criteria: Basic Family Health Units (BFHU) with the project QUALIS implemented between 1996 and 1998, which is the period when the FHP was initiated in Sao Paulo; and nurses hired in the referred three-year period, trained by professionals of the same category to provide nursing consultation to children at that health service center.

This way, the study population covered: the physical area, material and printed resources existing at the 12 nurs-
ing consultation offices; and 14 nurses who delivered this service to children of one year of age or younger at eight BFHU that worked in a partnership with the Casa de Saúde Santa Marcelina Hospital, located in Eastern São Paulo.

Data collection was performed using the following techniques: systematized observation of the structure available to provide nursing consultations to children, guided by an instrument that contained explicit criteria found in the consulted literature and validated by 11 specialists in Public Health /Collective Health and Children’s Health; and the application of a semi-structured questionnaire that was answered by the selected nurses. This instrument addressed issues regarding: professional development; previous work experience and time working at the unit; theoretical/practical training received in nursing graduation and at health services to perform nursing consultations, and the experience in developing the referred activity. Its construction was referenced by normative criteria that indicate the desired professional qualification for providing the referred activity.

To perform the proposed evaluation, the obtained data was compared to those of the aforementioned criteria with the purpose of making it possible to make a judgment of value about the quality of the structure available for performing nursing consultations in child care. Therefore, it was sought to evidence the presence of favorable conditions or obstacles for the good performance of professionals practicing this activity.

Before the data collection, the research project was approved by the Research Ethics Committee at Universidade Federal de São Paulo (Register number 564/01) and received authorization from the Nursing Coordinator of the Santa Marcelina QUALIS. The selected nurses signed the Free and Informed Consent Form after being informed about the study objectives and the data collection techniques and also guaranteeing that the participants would remain anonymous.

RESULTS

Physical area and office facilities

Among the offices present in the eight BFHU, 12 were used exclusively for nursing consultations in the period used for assisting the clients scheduled for the 14 nurses. Regarding the offices’ sizes, it was found that one measured 7 m² and the other 8 m², while ten offices had an area of at least 9 m², which is recommended by the Ministry of Health (MH) for individualized service rooms to be used for basic health actions. One of the two offices with areas smaller than the adopted standard was located in a house that had been adapted for performing activities as basic health units.

The environments of these offices were also characterized by data regarding the facilities and the comfort conditions related to ventilation and lighting in the room, and if the floors, walls and sinks could be washed and cleaned, as per standards established by the MH.

Therefore, it was observed that the offices were cleaned once or twice a day, and that the cleaning was performed by health unit employees or by a hired outsource company, meeting about every requisite of washing and cleaning sinks, floors and walls.

The data in Chart 1 shows that most items referring to the environment were satisfactory for performing nursing consultations apart from the material indicated to cover walls that were resistant to cleaning with appropriate disinfectants. As for the offices that did not have sinks in them, the nurses washed their hands at another location because one office was an adapted room in a rented house that was being used as a BFHU, and measured 13 m², therefore, above the standard established by the MH.

**Chart 1 - Environment of the 12 offices used for nursing consultations in eight Basic Family Health Units, according to the recommended items - São Paulo - 2002**

<table>
<thead>
<tr>
<th>Recommended items</th>
<th>Number of offices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Washable floor</td>
<td>Yes: 11 No: 01</td>
</tr>
<tr>
<td>Washable wall</td>
<td>Yes: 10 No: 02</td>
</tr>
<tr>
<td>Sink with running water</td>
<td>Yes: 10 No: 02</td>
</tr>
<tr>
<td>Liquid dispenser **</td>
<td>Yes: 06 No: 06</td>
</tr>
<tr>
<td>Natural Ventilation</td>
<td>Yes: 11 No: 01</td>
</tr>
<tr>
<td>Lighting</td>
<td>Natural: 11 Artificial: 12</td>
</tr>
</tbody>
</table>

* All rooms had painted walls, but the walls in 10 offices were washable but did not resist to the appropriate disinfectants recommended by the MH. ** Although six offices had liquid dispensers, two of them had liquid soap bottles close to the sinks.

Material Resources

Table 1 shows that nine of the 15 types of listed materials are considered indispensable by the MH. Among them, six were present in the 12 offices (office desk, exam table and table for the pediatric scale, pediatric scale, anthropometric ruler, and otoscope). Nevertheless, in four rooms the number of chairs was not adequate, and there was no child stethoscope in two rooms and no sphygmomanometer in any of the rooms.
Table 1 - Material resources recommended and available per office for providing nursing consultations to children in eight Basic Family Health Units - São Paulo - 2002

<table>
<thead>
<tr>
<th>Material Resource</th>
<th>Offices Complete</th>
<th>Offices Incomplete</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office desk</td>
<td>1*</td>
<td>12</td>
</tr>
<tr>
<td>Chair</td>
<td>3*</td>
<td>8</td>
</tr>
<tr>
<td>Window cabinet</td>
<td>1</td>
<td>11</td>
</tr>
<tr>
<td>Exam table</td>
<td>1*</td>
<td>12</td>
</tr>
<tr>
<td>Pediatric scale</td>
<td>1*</td>
<td>12****</td>
</tr>
<tr>
<td>Cylindrical container with a pedal or other wastebasket</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>Anthropometric ruler</td>
<td>1*</td>
<td>12</td>
</tr>
<tr>
<td>Child stethoscope</td>
<td>1*</td>
<td>10 **</td>
</tr>
<tr>
<td>Adult stethoscope</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>Child sphygmomanometer</td>
<td>1*</td>
<td>12</td>
</tr>
<tr>
<td>Otoscope</td>
<td>1*</td>
<td>12</td>
</tr>
<tr>
<td>Pocket lantern for exams</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Tape for anthropometric measurements</td>
<td>-</td>
<td>12**</td>
</tr>
<tr>
<td>Thermometer</td>
<td>-</td>
<td>12</td>
</tr>
</tbody>
</table>

* Indispensable items according to the MH(16) ** Each office had two chairs; *** The closet did not have a window; **** Eight of the twelve scales were electronic and four were manual; ***** The nurses used the otoscope light instead of the lantern.

It was observed that all the other necessary materials recommended for providing nursing consultations were available in all offices in a way the children physical exams were performed with the necessary conditions regarding comfort, simplicity, precision and cleanliness, including: disposable bed covers, paper towels, spatulas, gloves and other items such as cotton jars, clocks that displays the seconds, a pen, a pencil, and an eraser.

In addition, it was observed that nine offices were decorated with washable rubber toys, which were suitable for the children’s ages.

Every office had the forms necessary for registering the activities on the familiar medical record: client identification form containing items about personal and family history; the child’s card with a specific area for registering the vaccinations and taking notes on the weight curves; a chart to follow the child’s growth, curves for weight, height and cephalometry; prescriptions; required laboratory exams; a statement for their attendance to the unit; referral form for consultations; forms for home visits to newborns and for routine nursing consultation for children; and the family register form, which include data about the number of people composing the family, specifying age, gender, literacy profiles, occupation, diseases, besides the conditions of housing and sanitation, family income and patrimony, and others; that form must be kept on the family medical record at all times except when being used by the community health agent or other members of the team.

However, it was verified there was a lack of forms for registering the main landmarks of child development, as well as a minimum of material to perform that evaluation in child care.

It was also observed that there was satisfactory cleanliness of the offices, exam tables, pediatric scale and toys, as well as a good conservation of the available material.

Nurses’ experience and professional qualification

Regarding the time since completing the nursing graduation course, 12 (85.7%) of the 14 selected nurses had completed the course over five years before.

In addition, ten (71.4%) professionals, before being hired by the FHP, already worked in basic health units. Of the four nurses without any previous work experience in this type of service, two had only worked in hospitals and two initiated their professional activities at the BFHU that had a partnership with Casa de Saúde Santa Marcelina Hospital.

All the professionals started to work at the units included in this study as of 1996, three of which were hired in the same year of this study, and 11 two years later, thus demonstrating their professional experience, especially in the basic health care service network.

Regarding their preparation they received during their nursing graduation course to practice nursing consultation to children, seven professionals who completed nursing graduation, especially in the 1990’s, were prepared through the curricular subjects of Public Health/Collective Health Nursing, Pediatric Nursing and Maternal-Child Nursing. Six of the seven nurses who did not receive this preparation in the nursing graduation course completed the course in the 1970’s or 80’s.

According to the reports of all informants who were trained to perform nursing consultations to children in BFHU, their preparation was obtained in a theoretical-practical 56-hour course offered at that time by the Nursing Coordination at the Qualis/FHP Santa Marcelina. It was verified, through the informants’ reports, that the addressed themes were: child growth and development process; physical exam; feeding habits in the first year of life; most common adverse events in pediatrics; and nursing care systematization.

All informants reported they were prepared to perform the activity, and one nurse suggested there should be a systematic offer of continuing education to support the development of nursing consultation to children.

In terms of completing lato sensu post-graduation courses, it is observed in Table 2 that three nurses com-
pleted the Specialization Course in Family Health and that 11 were attending courses of this specialty, which is essential for the professional preparation in this Program. Other courses the nurses had completed complemented the required qualification to develop activities focused on Family Health. The mean number of completed courses was 1.1 per nurse and considering the completion of ongoing specialization courses, the mean would be 1.9; hence totaling about two courses per professional, which indicates that they had the competence to work in basic health care.

Table 2 - Distribution of nurses according to completed and ongoing specialization courses at eight Basic Family Health Units - São Paulo - 2002

<table>
<thead>
<tr>
<th>Specialization Courses*</th>
<th>Completed</th>
<th>Ongoing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Health/Collective Health</td>
<td>8</td>
<td>–</td>
</tr>
<tr>
<td>Family Health</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>Public Health Education</td>
<td>2</td>
<td>–</td>
</tr>
<tr>
<td>Occupational Health</td>
<td>1</td>
<td>–</td>
</tr>
<tr>
<td>Obstetric Nursing</td>
<td>2</td>
<td>–</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16</strong></td>
<td><strong>11</strong></td>
</tr>
</tbody>
</table>

* More than one course per nurse

The participants also informed that they attended a theoretical-practical training course with health team physicians to learn how to administer the strategy Comprehensive Care to Prevalent Childhood Diseases (AIDPI, abbreviation in Portuguese for Atenção Integrada às Doenças Prevalentes da Infância), in February 2001.

It was also found that as of June 2002, the participants attended the continuing education course, offered by the nursing coordination of the referred units, to update their knowledge on child vaccination.

**DISCUSSION**

**Physical area and office facilities**

In the present study it was verified that six of the nine materials considered indispensable by the MH were present in the 12 offices. The number of chairs were inadequate, and there was no child stethoscope and no child sphygmomanometer in four, two, and every office, respectively, thus failing to comply with the evaluation criteria regarding the existence of these resources.

It is emphasized that nurses who did not have the child stethoscope performed the auscultation using the adult stethoscope, which was present in every office. Using an appropriate stethoscope, with reduced diameter, is important because it provides better limitation of the areas that should be explored in the techniques of heart and pulmonary auscultation.

As for blood pressure (BP) measurement, despite its relevance, this procedure has been routinely performed only in children with specific health problems that alter the BP, thus it is considered not very usual in health care to clients with less than one year of age. The lack of appropriate instruments, as well as not valuing the procedure, and the health professionals’ lack of skills to verify BP in children are considered other factors that affect BP measurement, especially in infants.

Some indicators regarding the FHP performance in Brazil, considering the secondary database and previous studies, show that the physical infrastructure is not the biggest problem for health teams to work, despite most units not having been planned as a place for developing health the involved health activities. As for the equipment, most teams had the basic items except for some that did not have child scales (12.3%), clinical thermometer (7.4%), stethoscopes (4.7%), sphygmomanometers (5.1%) and otoscopes (33.5%). In addition, it was verified that the child cards were lacking (8.6%) or there was an insufficient quantity (7.2%) in some units.

By comparing these data with the results obtained in the present study, it was observed that only one of the eight BFHU was established in an adapted house. Six of the 12 offices used for nursing consultations had items that are considered indispensable by the MH, except for the fact that two offices that did not have a child stethoscope, four offices that did not have the appropriate amount of chairs and the child sphygmomanometer was not present in any of the offices. However, all offices had the cylindrical container with a pedal or other wastebasket, the clinical thermometer, the adult stethoscope and anthropometric measuring tape were available in all the observed offices.

Different results were found in a previous descriptive study that evaluated the structure used for prenatal care in the basic health care network in the urban area of Pelotas (Rio Grande do Sul). The study found that most units were considered being precarious (70% of the ideal), and that the physical structure was the most deficient area, suggesting that these spaces were idealized without planning the construction according to the standards established by the MH. On the other hand, it should be emphasized that the size of the medical offices was considered satisfactory, so where the offices used for nursing consultations in the eight studied BFHHU, as presented in the aforementioned results.

Similarly, a qualitative study performed in the BHU of two cities located in Vale do Paraíba (São Paulo), developed with the objective to understand the meaning that nurses assign to performing nursing consultation in child care, in the FHP context, found that nurses consider this health care activity important and comprehensive. However, they acknowledge their difficulties to perform the nursing consultation due to the lack of an exclusive office, thus implying the need to make adaptations, sometimes inadequate, because some units are established in adapted houses, with offices that do not provide the necessary comfort and privacy for the interview with the children’s mothers. Another
difficulty experienced by these nurses is the lack of adequate materials for the consultations, which were often insufficient and needed to be shared with other professionals(10).

As for the nurses’ professional experience and qualification, the inclusion of specific preparation for nursing consultation in the nursing graduation course is something rather new. Therefore, it is considered one of the obstacles to institutionalizing this health care practice in health services, especially BHUs. Another issue is nursing shortage, in most of these services, caused by the distortion in human resource distribution and by the attention given to curative programs, which places preventive action in a background setting(16).

The study performed by these authors(10) discussed on the implementation of nursing consultations in the health system of Volta Redonda from the nurses’ perspective, and found there were difficulties for implementing this health care practice because of aspects related to human resources, such as: nurses’ lack of preparation, shortage of professionals for nursing consultation, and the relationship difficulties among nurses and the other professionals working in health institutions. These results are different from those found in the present study, which verified, in the eight selected BFHUs, that every health team had a nurse with the specific preparation to perform nursing consultations to children under one year of age.

Similarly, the findings from another study(17), performed with the objective to identify the work process of FHP nurses working in the city of Marília, differ from the results of the present study, as it was concluded that the eight professionals selected from this city showed little professional experience in primary care, with a maximum three years of work in the FHP, and being hired without a specialization degree in Collective Health or Public Health. According to the authors, this profile justifies the reductionist view of their practice in BFHUs. Furthermore, the results also confirmed the considerations by Donabedian, who stated that factors that affect health care quality are mainly those related to human resources, such as: time since graduation, professional preparation, work experience and the location of health care practice(18).

CONCLUSIONS

The evaluation of the structure regarding its physical area, facilities and materials available for performing nursing consultations at the selected FHP BHU was considered satisfactory given that the service was in accordance with most of the normative criteria adopted in this study.

The professional qualification of the 14 participant nurses of this study was evaluated and considered appropriate for performing nursing consultations in child care at BFHU as they have work experience, qualification from specialization courses in Public Health/Collective Health and Family Health, as well as specific preparation for this activity.

Therefore, it was indirectly inferred that this preparation assigns quality to the nursing consultations performed since it is also in line with the presence of satisfactory conditions regarding the physical area and facilities, the material resources available in the offices used for providing this service to children with less than one year of age.

Health evaluation performed by adopting quality indicators has been characterized as a strategy that permits the search for efficiency and efficacy of organizational structures, with a view to improving the care delivered to the clientele of health services(18).

REFERENCES


