ABSTRACT
Objective: to construct a scale for assessment of ability to care for HIV-exposed infants. Method: a methodological research with quantitative approach held from February to October 2008, in reference units for care to HIV-exposed infants in Fortaleza-CE/Brazil. Scales were used as instruments and forms analyzed by judges. The sample consisted of 26 caregivers of children. The project was approved by the Research Ethics Committee of the Hospital São José of Infectious Diseases, protocol number 005/2008. Results: the results showed 98.5% concordance between judges. The reliability by Cronbach's alpha showed internal consistency of the items of 0.954. Was made a scale with 52 items and five dimensions. Conclusion: The instrument can be widely used in clinical and research settings. Descriptors: Validation Studies; Transmission of Infectious Disease; Child Health.

RESUMO

RESUMEN
Objetivo: construir una escala de evaluación de la capacidad para cuidar de los niños expuestos al VIH. Método: investigación metodológica con enfoque cuantitativo a cabo entre febrero y octubre de 2008, en unidades de referencia en el cuidado de los bebés expuestos al VIH en Fortaleza-Ceará/Brasil. Las escalas se utilizan como instrumentos y formas analizadas por los jueces. La muestra estuvo constituida por 26 cuidadores de niños. El proyecto fue aprobado por el Comité de Ética de Investigación de Hospital São José de Enfermedades Infecciosas, protocolo número 005/2008. Resultados: los resultados mostraron un 98,5% de concordancia entre los jueces. La fiabilidad de consistencia interna alfa de Cronbach de las partidas presentadas a 0,954. Hemos desarrollado escala con 52 ítems y cinco dimensiones. Conclusión: el instrumento puede ser ampliamemente utilizado en entornos clínicos y de investigación. Descriptores: Estudios de Validación; La Transmisión de Enfermedades Infecciosas; La Salud Infantil.
INTRODUCTION

The measuring tools that are used in a scientific research must be evaluated to establish reliability and validity in terms of the measure. The properties of these tools have a profound influence on the findings and on the internal and external validity of the study. Researchers often face the challenge of developing new instruments and, as a part of this process, establishing the reliability and validity of these tools.¹

Currently several researchers have used measuring instruments developed both to validate them as in disciplines. Based on that, it is extremely important to the nursing professional's ability to develop scales and knowledge in its use.

The National STD/AIDS Program has given emphasis on procedures to combat mother-to-child transmission (TV) of HIV during pregnancy, childbirth and the puerperium. However, few of these measures assessment tools were developed. In addition, almost all the research stops in to see and analyze these practices only until the postpartum. Nevertheless, it is known that after discharge of motherhood, mother or guardian has a considerable portion of responsibilities on this neonate, including the continuation of the measures.²

The Health Ministry recommends that at the postpartum, mothers with HIV should not breastfeed their children, nor to donate milk for the milk bank and contraindicate crossed breastfeeding. In such cases, children born from HIV mothers should be fed with artificial milk and after the second month of age, other kinds of food should be introduced into the child's diet. Child care is also exposed, during this period, to the administration of AZT syrup up to 42 days and the antibiotic Sulfametaxol and trimetrompne up to one year old, in addition to follow-up with infectious disease and vaccination.

The study showed faults during the discharge, in relation to information promoted to parents or guardians to be caregivers of the child exposed and thus ensure the reduction of TV, as well as the absence of an organized team to identify the child after discharge flow of motherhood, for continuity of care.

Still in this context, a research evaluating the ability of self-care of mothers with HIV/aids with their children under the age of six months old, born vertically exposed, revealed that many children are not being accompanied by a specialist to confirm the diagnosis and not receiving or performing properly prophylaxis to decrease the TV. Parents or guardians neglect such care or perform without any monitoring by health teams.

Given the above, it is recommended to practice guidelines of care for the improvement of the quality of life of children exposed to HIV. The mother or another family member, such as subject, and the child's caregiver, therefore, can take control of TV, facilitating compliance with recommendations.

Depending on the possibility of identifying the ability to care for children exposed, through the construction of an instrument capable of measuring the behavior and the ability of caregivers to assist in identifying strategies to parents or guardians in the promotion of health of her son exposed to HIV, has drawn up the present study whose objectives are: to build an evaluation scale of ability to care for children exposed to HIV (EACCC-HIV); crafting items and dimensions and to evaluate the psychometric properties in terms of validity and reliability of the instrument.

METHOD

Research of methodological type with quantitative approach, based on reference for elaboration of the Pasquali instruments. The different stages of the study took place from February to October 2008. For better understanding of the construction process of the scale described themselves three phases for the construction of instrument: theoretical, empirical (experimental) and analytical procedures.

- Theoretical procedures

The methodological development of theoretical procedures phase was carried out from February to August 2008.

During this phase of elaboration of the scale, to perform the constitutive definition of construct ability to care for children exposed to HIV, it was necessary the reflection of the subject and the thorough review of the literature based on the recommendations and proposed by the Ministry of Health care on the reduction of mother-to-child transmission of HIV.

In order to clarify the construct, operational definitions were established the capacity to care, in seven dimensions, which guided the development of the items. In this construction of the items, the ability to care for children exposed to HIV was represented
by verbal behavior, which is why the contents of the items referred to the self-reporting of expressions related to this capability. As recommended, was applied a set of twelve rules or criteria for the construction of the items. Later, these claims were categorized into one of the seven dimensions. At the end of this procedure, we identified seven dimensions and 55 items related to ability to care for children exposed to HIV.

With the construction of the 55 items and their corresponding dimensions, a devised scale of Likert type rating, since the expressions would be matched to numeric values. The values of this scale were described in a score of 1 to 5, for items with favorable meaning categories: 1-never, rarely, 2-3-4-sometimes many times and 5-always; for items with negative meaning, the score was reversed. This instrument was called the assessment scale of Ability to care for children exposed to HIV (HIV-EACCC).

The score of this assessment scale was compiled as follows: for each domain it was estimated the total range of the score, divided by three, the number of Dimensions of the Ability to Care: Low, Moderate and High, and, in this way, the amplitude of each category.

As indicated, the 55 claims were submitted for content validation by five judges: a nurse researcher, a pediatric infectious disease, a physician and a nutritionist. All possessed knowledge and played child-care exposed to HIV, in addition to the fifth judge, a psychologist with expertise in psychometrics.

The judges received the EACCC- HIV scale with guidelines for analysis of agreement and the invitation to participate in the survey, so that they judged the apparent content validity (theoretical analysis of items). Was asked to each judge who could indicate the instrument of relevance of items and examine the factors related to the capacity to care.

Finishing the stage of theoretical analysis, the 55 items were submitted to the semantic analysis, being examined with regard to speech intelligibility in a pre-test. The objective was to verify the comprehension of the instrument by a group of patients, using brainstorming technique.

For the brainstorming technique were formed two groups of four caregivers to meet the scale and the researcher observing the intelligibility of the instrument. The items were presented one by one and put into discussion, asked for each caregiver reproduce with your own words and when playback was not consensual, or if it does not correspond to that intended, was a reworking of the item. In this research, two sessions were needed with two different groups to achieve the saturation.

As an aim to ensure the semantic analysis, it was found the intelligibility of the items of the scale by a professor of the English language. Asked to assess the understanding of the content of the claims and make the correction of possible errors of spelling, punctuation and syntax. The ambiguous statements, whose content does not present a clear and precise idea, were recast.

For the validity of content, the instrument EACCC-HIV was evaluated again by five judges: an infection specialist who provides medical assistance to children exposed to HIV and four nurses with experience in research and assistance with these subjects. Each judge received a questionnaire with items shuffled, where they should register the clarity, relation item-factor and relevance of each item.

In related to the analysis of correlation between the judges, was used the Cronbach's alpha test. This technique assumes values from zero to one. The higher the value of Alpha, the greater the variance of the set of items and lower the variance that is specific to each item, which indicates the congruence between items of an instrument.

- Empirical (experimental) procedures

This stage referred to the application of the instrument pilot. The methodological development occurred from June to October 2008 in two outpatient referral hospitals for care of children exposed to HIV, in Fortaleza.

The population was made up of 86 women-mothers with HIV. For the removal of the size of this population, identified the number of childbirths of women with HIV/Aids in Fortaleza-Ceará, from January 2005 to October 2008, resulting in an annual average of 86 births.

The sample consisted of 26 mothers (30% of the population), this number determined by the amount of caregivers, who attended the service at the time of collection, and that met the following criteria: be the only or the primary caregiver of the child exposed and that it had until one year of age; be able to perform alone the caution; do not present health problems that interfering in the collection (e.g. mental illness) and accept to participate in the research. Exclusion criterion was considered the caregiver that they should not partake of child care, constantly could not accomplish alone the
caution and present health problems that interfering in the collection (e.g. mental illness).

In this sample, was applied a reformed scale with 70 items and a data collection instrument with the caregiver’s variables (age, education, income, marital status and occupational status) and the child variables (age, diseases, hospitalizations and type of milk used). The scale was self-applied and only in cases where the patient had difficulty on reading and writing, was used an interview. The application lasted about 30 minutes.

In this study, was obeyed the ethical aspects contained in Resolution 196/96, the National Health Council of the Ministry of health, which brings the Regulatory Standards and Guidelines for research with Human Beings, which incorporate the basic principles of bioethics: autonomy, beneficence, non-maleficence and justice. The subjects authorized his participation in research by agreement bet on informed consent. The research was approved by the Ethics Committee of the Hospital São José of Infectious Diseases under the number 005/2008.

Analytical Procedures

The group contrasted approach was applied in order to validate the construct. In this study, were compared individuals with income less than a minimum salary and others with an equal or a greater salary. The income was chosen because it is a variable related to changes in ability to care.

The method of internal consistency or coherence was evaluated in this research to verify the reliability (homogeneity) of the sample test items, that is, the internal consistency of the test. Among the various techniques that can be used, was selected for this study, the Cronbach’s alpha.

RESULTS

Of 55 items (100%) elaborated, four (7.27%) were items related to the ability to administer AZT syrup (children up to 42 days of life) (dimension 1), four (7.27%) indicated the ability to avoid breastfeeding (size 2), nine (16.36%) relate to the ability to prepare and administer the artificial milk (3 Dimension), 21 (38.2%) were related to the ability to prepare and administer complementary feeding (size 4); five (9%) indicated the ability to administer the prophylaxis with sulfamethoxazole and trimethoprim-SMX and TMP (> 42 days and up to one year) (size 5), seven (12.72%) indicated the ability to contribute to the child’s treatment adherence (size 6) and five (9%) related to the ability to ensure the vaccination of children (size 7).

The 55 items were judged on their relevance to the concept of ability to care for children exposed to HIV. It was noted that there was agreement among the justices, with the equivalence of 98.5%, above 80% result and all items were kept in this first phase with the judges.

The criterion of relevance of the item should be at least 80% agreement between the judges and items that do not reach this percentage can be dropped from the pilot tool.

After the process of content analysis of judges, were kept all 55 items, though some items have undergone adjustments and others were included, 32 items were held, and eight redesigned, a deleted and included 16, getting a total of 70 items for use in the pilot. In addition to the analysis by the judges, was applied to semantic analysis, when 14 items have been modified.

As for the groups contrasted, it was identified that there was no statistically significant association between the variable income and seven items of the scale (p < 0.05). In this case, it is suggested the income variable in the application of this scale in other surveys.

The reliability by Cronbach’s Alpha has a total value of 0.954 and p = 0.0001, revealing that there was internal consistency of the items. In the second phase with the judges, the Cronbach’s Alpha for clarity, relation and item dimensions-relevance achieved the value of 0.800 and p = 0.0001, demonstrating concordance between them. However, the analysis for the clarity of equivalence was not observed item (α = 0.110 and p = 0.262) and some items of the instrument were reformulated or deleted.

Both in the general calculation as separated by dimensions it has been shown that Alpha is appropriate and that there is internal consistency of the items. Values above 0.80 indicate high internal consistency.

After the reformulations and additions of the second phase with the judges, of the 70 items of the instrument pilot, were selected for the final 52 scale items (100%) and five dimensions (ANNEX), distributed as follows:

In Dimension 1-Ability to administer AZT syrup (children up to 42 days), four items (7.7%); Dimension 2-Ability to prepare and
administer the powdered milk (all children up to one year), 17 items (32.7%); Dimension 3-Ability to prepare and administer complementary feeding (for children over four months of age), 22 items (42.3%); Dimension 4-Ability to administer the prophylaxis with TMP and SMX (children > 42 days up to one year), four items (7.7%) and size 5-ability to ensure adherence to clinical follow-up and vaccination (all children up to one year), five items (9.6%).

With 70 items, the instrument was applied in the pilot sample of 26 caregivers of children exposed to HIV. The children's ages ranged from seven days to 11 months, being the average age of 109.5 days, i.e., 3.65 months of life. 25 caregivers (96.2%) were the biological mother and a (3.8%), the adoptive mother.

As for the age group of caregivers, ages ranged from 20 to 55 years, with greater representativeness in the age group of 20 to 29 years (57.7%) and between 30 to 39 years (34.6%). Smaller number was observed in the age group of 40 to 55 years (7.7%). The caregiver who was the foster mother had 55 years. In relation to marital status, 20 (77%) had six (23%) and companion had not.

Due to education, one (3.8%) caregiver didn't know reading or writing, seven (27%) had incomplete elementary school, six (23%), complete elementary, one (3.8%) incomplete high school and 11 (42%) complete one.

With regard to functional situation, most caregivers the study was unemployed (84.62%), only three were employees (11.54%) and a (3.8%) was retired. In relation to the monthly income in minimum wages, most caregivers (48.9%) received 10 less than a minimum wage, seven (27%) received a salary and nine (34.6%) had income of two to three salaries.

DISCUSSION

This was literature research of the Ministry of health on children exposed to HIV to the constitutive definition and construct's operating Capacity to care for children exposed to HIV. Authors consider the literature pertinent to the subject one of the main sources for the preparation of the items.

On the validity of the content of items by means of enjoyment between judges met an agreement equivalent to 98.5% (p = 0.470), in consonance with Pasquali, who admits the existence of at least 80% agreement between the judges. The observed value is higher than the average established by researchers who developed rating scales to check the quality of an instrument.

There was a statistically significant association (p < 0.05) between the variable income and seven items in the Scale of Evaluation of the Ability for child Care Exposed to HIV. Researchers indicate that the income can be a facilitator or making difficult of access to rights such as education, housing and food, being indicated for application of this variable in other studies with larger samples.

In the evaluation of the confidentiality with regard to homogeneity (internal consistency), it has been shown that Alpha is appropriate and that there is internal consistency of the items. Values above 0.80 indicate high internal consistency. Investigations select Cronbach's alpha as a statistical test to assess the internal consistency of the items, by being able to reflect the degree of covariance of the items of the instrument.

It is observed that the factors that have undergone more changes and that composed the majority of items of the instrument were the factor 2-ability to prepare and administer the powdered milk (all children up to one year), 17 items (31.5%) and factor 3-ability to prepare and administer complementary feeding (for children over four months of age), 22 items (40.74%).

During the application of the scale, numerous difficulties of caregivers regarding the preparation of infant formula and complementary power to acquire for children exposed to HIV. Research conducted in 2005, in the city of Fortaleza, about the food practices of children from 0 to 2 years, daughters of mothers with HIV, revealed that there are difficulties to receive the donated milk, as well as in the preparation of this milk, dilutions were incorrect, there was addition of Add-ons and early introduction of energy non-dairy foods.

It is observed that difficulties related to the nutritional supply, it is also common in children not exposed to HIV. This study highlighted the inefficient practice of health care professionals in the dissemination of guidelines on children's nutritional supply. In this way, a preparation of professionals in expanding the recommendations advocated by the Ministry of health, stands out, the vulnerability to which children in period of HIV are exposed.

The publication of new guidelines from the World Health Organization (who) on HIV and infant feeding, in the world context of
widespread impoverishment, obliges countries to review the power of these children policies in relation to socio-economic aspects. The attention is centered on programs that donate artificial milk in developing countries, because of course the increase in malnutrition and morbidity and mortality associated with not breastfeeding mothers infected with HIV and unpredictable risks of artificial milk preparation.

Other studies discuss the risks of artificial milk preparation and controversy of exclusive breastfeeding in children exposed in the developing countries.

Two other relevant aspects were observed during application of the scale: a caretaker reported that a child was breastfed by another woman (cross-feeding) and AZT syrup was administered, in some children, at the time longer than recommended or was prematurely stopped. Breastfeeding increases the chance of mother-to-child transmission of 7 to 22% at each feeding and is contra-indicated by the Ministry of health breastfeeding cross. Surveys reveal that has not yet have conclusive data on the effect of anti-retroviral drugs in the fetus, newborn and during childhood, however, with the current knowledge that the benefit exceeds the potential risk of adverse effects. The expectation of the introduction of ARVS in children is considered one aspect of the success in the care of children.

Research has proven that the guidelines for care of children exposed to HIV have not been carried out in a timely manner, that is, during prenatal care or maternity and the opportunities are lost, increasing the risk of vertical transmission, or failures in the care of these children. Study conducted in four public maternity hospitals in northeastern Brazil in 2005 revealed that the greater adherence to standards for prevention of mother-to-child transmission of HIV and syphilis was observed in the motherhood (62.5%), ranked partially deployed, and the smallest in maternity C (30.6%), framed as unacceptable.

## CONCLUSION

The assessment scale of Ability to care for children exposed to HIV (HIV-EACCC) can be applied both to the research as in the clinical area, as it allows identify the factors related to the care of children exposed to HIV.

It is concluded, therefore, that obtained a valid and reliable instrument to evaluate the ability to care for children exposed to HIV, because if you used several psychometric properties for building instruments-validity of content with the judges; semantic analysis of the items, with the technique of brainstorming; the review of the items for a Portuguese language teacher; application of the instrument in the sample of 26 caregivers of children exposed to HIV; validity through the comparison of groups contrasted and reliability (homogeneity) of scale assessed by Cronbach's alpha.

It is suggested to conduct new studies, preferably with greater sample size, in order to understand further the relationships between maternal variables (age, education, income, parity, time of diagnosis, prenatal consultations, knowledge about the disease etc.) and for children (growth and development, hospitalizations, illnesses, examination results etc.) and the ability to care for children exposed to HIV, in addition to the application of other psychometric properties.

## REFERENCES


Submission: 2012/05/09
Accepted: 2013/01/22
Publishing: 2013/03/01

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### ATTACHMENT

**Rating Scale of Capacity To Care for Children Exposed to HIV (HIV-EACCC)** (BARROSO, LMM, 2008).

This scale has 52 questions and is divided into five parts or dimensions:

I - Ability to administer AZT syrup. Must be answered for children from zero to 42 days of life. The questions are presented in 1-5 questions.

II - Ability to prepare and administer the powdered milk. Should be answered for children from zero to one year old. The questions are presented in the 6-21 questions.

III - Ability to prepare and administer complementary feeding. Should be answered for children from 2 months without use of infant formula or over 4 months to one year of age in use of infant formula. The issues presented are of 22-43 questions.

IV - Ability to administer prophylaxis with TMP and SMX. Should be answered by children older than 42 days of life until one year of age. The questions are presented in the 44-47 question

V - Ability to ensure adherence to clinical and vaccination. Should be answered for children up to one year old. The issues presented are of 48-53 questions.

**INSTRUCTIONS:**

For each of the following statements, please choose the answer that best describes your ability to care for children exposed to HIV. There is no right or wrong answer, but give the answer you think closer than you realize with the child. Mark with X one of the spaces that matches the situation that best suits your care, which can be: Never, Rarely, Sometimes or Always Many Times.

Please tick one alternative for each question that is consistent with its opinion and according to the child's age.

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#### IDENTIFICATION CODE:

<table>
<thead>
<tr>
<th>I</th>
<th>ABILITY TO MANAGE THE SYRUP AZT</th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Preparation AZT syrup according to prescription</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>AZT give syrup of 6 till 6 hours</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>I leave to give AZT syrup</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>I know when a child needs to use AZT syrup</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>II</td>
<td>CAPACITY FOR PREPARING AND GIVING MILK POWDER</td>
<td>Never</td>
<td>Rarely</td>
<td>Sometimes</td>
<td>Often</td>
<td>Always</td>
</tr>
<tr>
<td>5</td>
<td>I left the child in another woman breastfeed</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>Milk powder diluted in the proportions recommended, according to the child's age and/or orientation of the health professional</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7</td>
<td>Milk the amount of times (frequency) according to the child's age and/or orientation of the health professional</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8</td>
<td>I share the milk I can get to the child with others</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9</td>
<td>I use boiled water, filtered or bottled water to prepare the milk</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>10</td>
<td>When preparing the milk and the child does not take immediately, use within two hours</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>11</td>
<td>When I leave the house with the child take the water boiled, filtered or mineral preparation and time to feed the child.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>12</td>
<td>When I go out to give the child milk or other food that does not know the origin</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>13</td>
<td>When I leave the house I take boiled water, filtered or bottled water to give a child</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>14</td>
<td>When I leave the house with the child give water that does not know the origin.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>15</td>
<td>Can observe the conditions of validity of milk and milk before preparing</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>16</td>
<td>I keep the can of milk in dry and ventilated</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>17</td>
<td>I wash my hands with soap and water before preparing milk child</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>18</td>
<td>Clean the place where I will prepare the child's milk</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>19</td>
<td>Using a clean dish towel and dry and exclusive material to dry preparation of food the child</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>20</td>
<td>Clean and boil the material used to prepare the child's milk</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>21</td>
<td>I make cleaning the bottle for every time you take food, being careful not to leave food debris, removing the rubber nipple of the bottle screw, using brush and then boiling own all the material.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>III</td>
<td>CAPACITY FOR PREPARING AND GIVING A ADDITIONAL POWER</td>
<td>Never</td>
<td>Rarely</td>
<td>Sometimes</td>
<td>Often</td>
<td>Always</td>
</tr>
<tr>
<td>22</td>
<td>The use of other foods to the child under the supervision of health professionals</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>23</td>
<td>Types of food and number of meals according to the recommended age or prescription.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>24</td>
<td>I put sugar in infant feeding</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>25</td>
<td>Offer coffee, canned, fried foods, soft drinks, candy, snacks.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>26</td>
<td>Using the blender to make fruit or salty pape</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>27</td>
<td>Offer for the child scraped or mashed fruit.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>28</td>
<td>Offer for the child scraped or mashed fruit.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>29</td>
<td>Offer for the child scraped or mashed fruit.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>30</td>
<td>Offer for the child scraped or mashed fruit.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td>31</td>
<td>Offer for the child scraped or mashed fruit.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>32</td>
<td>Offer for the child scraped or mashed fruit.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>33</td>
<td>Offer for the child scraped or mashed fruit.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>34</td>
<td>Offer for the child scraped or mashed fruit.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

**English/Portuguese**

Barroso LMM, Freitas JG, Galvão MTG. Scale for assessment of ability to...

35. Fruits and vegetables with water and leave in sodium hypochlorite or bleach for at least 30 minutes
   1  2  3  4  5

36. I cook the food the child with boiled, filtered or bottled water.
   1  2  3  4  5

37. I make cleaning the bottle for every time you take food, being careful not to leave food debris, removing the rubber nipple of the bottle screw, using brush and then boiling own all the material.
   1  2  3  4  5

38. Using soups or bottle to give vitamins to children *
   5  4  3  2  1

39. I wash my hands with soap and water before preparing food
   1  2  3  4  5

40. Clean the place where I prepare food the child
   1  2  3  4  5

41. Lavo e rinsing with clean water (filtered, boiled or bottled) any material to prepare food
   1  2  3  4  5

42. I leave the trash in baskets capped or sealed plastic bags
   1  2  3  4  5

IV ABILITY TO DELIVER A PREVENTIVE AND WITH SMX TMP

43. I make cleaning the bottle for every time you take food, being careful not to leave food debris, removing the rubber nipple of the bottle screw, using brush and then boiling own all the material.
   1  2  3  4  5

44. Preparing the antibiotic Bactrim ® according to the prescription
   1  2  3  4  5

45. Offer the antibiotic Bactrim ® three times per week on alternate days
   1  2  3  4  5

46. I forget to take the antibiotic Bactrim ® *
   5  4  3  2  1

47. I give the child medicine for pain, fever or diarrhea that was not prescribed by the doctor. *
   5  4  3  2  1

V ABILITY TO ENSURE COMPLIANCE MONITORING REPORT AND TO VACCINATION

48. I take the child to the consultation on the appointed day
   1  2  3  4  5

49. I take the child to take the exams on the scheduled date
   1  2  3  4  5

50. I do my best to get the child to take tests or consultation
   1  2  3  4  5

51. I take the child to the query when he gets sick, even if you have not scheduled.
   1  2  3  4  5

52. I take the child for vaccination on the appointed day
   1  2  3  4  5

FORM, AND SCORING SCALE RATING
To sort the questionnaires add the points earned for each answer. The score is on a scale divided into five dimensions of care and overall value that goes from 52 to 260 points. Determine the level of ability to care for children with HIV, as low, moderate and high in each dimension and according to the values in the table below:

<table>
<thead>
<tr>
<th>Dimensions of the ability to care</th>
<th>Low capacity to care</th>
<th>Moderate ability to care</th>
<th>High capacity for caring</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>4 - 9</td>
<td>10 - 15</td>
<td>16 - 20</td>
</tr>
<tr>
<td>II</td>
<td>16 - 37</td>
<td>38 - 59</td>
<td>60 - 80</td>
</tr>
<tr>
<td>III</td>
<td>22 - 51</td>
<td>52 - 81</td>
<td>82 - 110</td>
</tr>
<tr>
<td>IV</td>
<td>4 - 9</td>
<td>10 - 15</td>
<td>16 - 20</td>
</tr>
<tr>
<td>V</td>
<td>6 - 14</td>
<td>15 - 23</td>
<td>24 - 30</td>
</tr>
<tr>
<td>Geral</td>
<td>52 - 121</td>
<td>122 - 191</td>
<td>192 - 260</td>
</tr>
</tbody>
</table>

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