

# Coping with hospitalization in children with cancer: The importance of the hospital school

## *Coping da hospitalização em crianças com câncer: a importância da classe hospitalar*

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### Abstract

Hospitalization affects children's behavior, and it is dealt with through children's coping strategies. This study aims to describe the hospitalization coping strategies adopted by children with cancer, analyzing the importance of the Hospital School. Eighteen children with cancer, aged between 6 and 12, participated in the study. The children were evaluated using the Computerized Instrument for Assessing Hospitalization Coping Strategies and their parents responded to the Child Behavior Checklist (6-18 years). The most common behaviors referred to were playing, talking, watching TV, taking medication, studying, feeling angry, and blackmailing. The most common strategies identified were rumination and distraction. The children highlighted the importance of the Hospital School as a way to continue their learning process and education. The sample's coping patterns revealed behaviors and strategies that were favorable to coping with hospitalization during the Hospital School period, which indicated possible benefits for children undergoing cancer treatment.

**Keywords:** Hospital environment; Cancer in children; Coping.

### Resumo

*A hospitalização afeta o comportamento infantil, sendo mediada pelas estratégias de enfrentamento (coping) da criança. O objetivo deste estudo foi descrever as estratégias de enfrentamento de crianças com câncer para lidar com*

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a hospitalização, analisando a importância da Classe Hospitalar. Participaram do estudo 18 crianças com câncer (6 a 12 anos), avaliadas pelo Instrumento Informatizado de Avaliação do Enfrentamento da Hospitalização. Os pais responderam ao Child Behavior Checklist (6-18 anos). Os comportamentos mais referidos foram: brincar, conversar, assistir TV, tomar remédio, estudar, sentir raiva e fazer chantagem; e as famílias de coping mais identificadas foram ruminação e distração. As crianças destacaram a importância da Classe Hospitalar para a continuidade da aprendizagem e da escolaridade. O padrão de coping revelou comportamentos e estratégias favoráveis ao enfrentamento da hospitalização durante o período na Classe Hospitalar, indicando possíveis benefícios desta para a criança em tratamento contra o câncer.

**Palavras-chave:** Ambiente hospitalar; Câncer em crianças; Coping.

The impact of hospitalization on childhood development stems from the fact that sick and hospitalized children present some changes that may interfere with their maturation process, such as the relationship of dependency and loss of control over their own bodies (Soares, 2002; Zannon, 1981). The psychological consequences of the disease and the treatment for the child and family are numerous. Because of this, Psychology needs to increasingly obtain knowledge to assist and treat children and adolescents who live with severe diseases (Castro, 2007).

According to Castro (2007), the impact on the child depend on the duration, symptoms, severity, and visibility of the disease, and the types of medical interventions; which are directly influenced by the characteristics of the child and his/her family relationships. Hospitalization may have immediate consequences for some children, such as the emergence of aggressive behavior, nightmares, behavioral changes, and fear of separating from their parents. Therefore, it is important to examine the behaviors observed in the sick children to better comprehend their reactions to the hospitalization process.

The disease, as a process, generates a dynamic impact on the development by impacting on the interaction of the child with the physical and social environment. This impact can be direct, in terms of biological dysfunctions, indirect, such as changes in daily activities, or linked to the demands of the disorder. Their evaluation must consider the variables related to the particularities of the pathology, as well as the coping repertoire of the child (Motta & Enumo, 2010; Thompson & Gustafson, 1995).

In addition, variables specific to the treatment regimen, such as efficacy and impact on adherence, which are influenced by factors such as the existence of side effects, should be considered in the evaluation and in the development of coping strategies (Ferreira, 2006). In this context, cancer stands out because its treatment is marked by performing invasive and painful medical procedures, generating a series of side effects such as weight and hair loss, nausea, vomiting, diarrhea, inflammation of skin and mucous membranes, and endocrine and growth problems. The prolonged treatment, with a frequent number of hospitalizations, is due to the recurrence of the disease, or even the consequences of the treatment: chemotherapy, radiotherapy, and surgery, among others (Costa Jr., 2005; Crepaldi, Rabuske, & Gabarra, 2006).

It is understood, therefore, that the coping repertoire of children, i.e., how they deal with certain situational contexts in which there is the occurrence of aversive experiences, is a function of their level of cognitive development and their history of interaction with the circumstances in which find themselves (Costa Jr., 2005). The comprehension of the coping strategies should take into account yet another series of factors that make up the child's context. This context, according to Costa Jr. (2005), includes factors that are: (a) biological, including organic conditions of the patient, complaints of discomfort, side effects of the medication, and the general evolution of the clinical condition; (b) psychological, considering cognitive factors such as beliefs and expectations, and affective factors, which include feelings and emotions faced with the disease; (c) historical, represented by the constitution of the patient's experiences with the disease and with the institution in which they are

treated; (d) social, which may include the presence of companions and the role played by those close to the patient, the interaction with other children and the reciprocal influence they exert on each other, as well as the relationship with members of the healthcare team, and (e) situational, considering the stimulus configurations of the institution as a whole and particularly the room in which the invasive procedures are performed.

According to Skinner and Zimmer-Gembeck (2007), coping is not conceived as a behavior that is subject to observation, or a belief that can be reported; as coping has a multidimensional character and can have different functions. Coping is understood as “the regulation of action under stress” (p.122), considering how people mobilize, energize and direct the behaviors and emotions, or fail to do so under stress conditions. The subject has an active role in the transactional process of coping with adverse situations, however, is also shaped by this process.

Considering that the study of coping is key to understanding how stress affects people’s lives, especially in the development of children and adolescents, Skinner and colleagues (Skinner, Edge, Altman, & Sherwood, 2003; Skinner & Zimmer-Gembeck, 2007) proposed, from a review of 100 studies, a hierarchical conception for the construct of coping. This allows the systematization of the coping process, based on categories called coping families, namely: problem-solving, support-seeking, escape, distraction, cognitive restructuring, rumination, helplessness, social isolation, regulation of emotion, information-seeking, denial, opposition, and delegation. Children, including the youngest, usually present four such coping families: support-seeking, problem-solving (and instrumental action), escape, and when this is not possible, distraction. There are therefore differences in coping in the age group 4 to 12 years (Skinner & Zimmer-Gembeck, 2007). From this developmental perspective, coping has an explicit role, different from the stress responses, in understanding the emotional, behavioral, motivational, cognitive, and social processes; showing how these multiple regulatory subsystems work together to manage stress.

Motta (2007) and Motta and Enumo (2010) adapted these categories in order to analyze the hospitalization coping strategies of children with cancer; also being used by Moraes and Enumo (2008) for children hospitalized with various diseases, and Carnier (2010) for children hospitalized prior to surgery.

In this analysis of coping with hospitalization, it should be considered that the child uses coping strategies accessing their cognitive, environmental, affective, emotional, and social resources. Among the environmental resources available, the Hospital School, can be constituted as a space that favors the emission of behaviors that relate to coping strategies which facilitate the adaptive process of the child.

Accordingly, since Decree-Law nº 1.044, of October 21, 1969 (Brasil, 2002), the hospital school education or Hospital School has become a right of hospitalized children. They can follow their studies and not fail the academic year, thus being able to continue in the school process (Fonseca, 2003). Special Education in pediatric wards aims to prevent school failure as well as meet the pedagogical and educational needs of childhood development (Fonseca, 2003; Sandroni, 2008). In addition to learning, the Hospital School contributes to the evolution of the clinical condition of the child, being a form of humanization of the hospitalization, which accelerates the improvement in the patient and contributes to their well-being (Almeida & Albinati, 2009; Sandroni, 2008).

According to Saldanha and Simões (2013), the Hospital School is “an underexplored mode of teaching which has many gaps” (p.447) and, although there has been hospital care since 1950, there are few studies in the area, regarding both Health and Education, with these authors locating 101 national articles published between 1996 and 2010. The authors analyzed 82 articles that address the following topics: Concepts and meanings (25.61%); Education and health relationship (15.85%); Pedagogical practices and didactic-curricular configuration (23.17%); Historical, organizational and legal aspects (13.42%), and Teacher training (21.95%).

Considering that there are still few studies on the problems of children in the context of the Hospital School, it is relevant to investigate the coping strategies used by children with cancer attending the Hospital School, exploring the importance attributed by the child to the behavior of studying in the hospital.

The main aim of this study therefore was to describe the coping strategies of children to confront the hospitalization and the treatment of the disease. Specifically, the aim was to describe behavioral problems and social competence in children with cancer; and to verify the importance attributed by the child to the Hospital School.

## Method

### Participants

A total of 18 children (14 boys) participated in the study, aged between 6 and 12 years (mean = 9.4 years; median = 9 years), diagnosed with cancer, hospitalized for a mean of 47 days (median = 120) for treatment in the Oncology Service, and enrolled in the Hospital School of a public children's hospital in *Vitória* (ES). The inclusion of participants in this convenience sample followed the criteria: a) to have been in the hospital for at least 7 days; a length of exposure to the hospital environment which may lead to the development of psychological or behavioral problems, according to Dias, M. N. Baptista e Baptista et al. (2003); b) to be between 6 and 12 years of age, considering that by age 6 the child already has the skills to be able to respond to the instrument of the study; c) to be diagnosed with cancer and undergoing treatment, with cancer chosen in order to compose a homogeneous sample with the same diagnosis; d) to be enrolled and attending the Hospital School, this being the point at which the present study differs from previous studies that used the same data collection instruments (Carnier, 2010; Moraes & Enumo, 2008; Motta & Enumo, 2010).

By consulting the social data records and interviews with parents, it was possible to

characterize the children: mean age of 9.4 years, 77.8% boys; 61.1% of the children had separated parents; 94.4% of the parents had complete elementary education; 66.7% of the children followed the evangelical religion; 61.1% of the children lived in the metropolitan region, and the others in the state.

The length of hospitalization of the children ranged from 7 to 300 days (mean = 47 days; median = 120). Only two children were hospitalized for the first time due to the diagnosis of the disease and 16 children were hospitalized for the third time or more. The reasons for the hospitalizations in the sample were: medication (38.9%), complications (27.8%) and for diagnosis (33.3%). The primary diagnosis was leukemia, for 10 children (55.5%), 8 (44.4%) with acute lymphoblastic leukemia and 2 (11.1%) with acute myeloid leukemia. The other 8 children (44.5%) presented various types of cancer: Burkitt's lymphoma (6), kidney cancer (nephroblastoma in left kidney and renal cell carcinoma) (2), soft tissue tumors (Ewing's sarcoma and osteosarcoma) (1), and tumor of the head (pineal) (1). Regarding the severity stage of disease, 8 children (44.4%) were in the severe stage, 8 (44.4%) in the moderate stage, and 2 (11.1%) in the mild stage. These data were obtained from the medical records.

### *The Hospital School*

The Hospital School of the *Hospital Infantil Nossa Senhora da Glória* (HINSG), called the "Corner of Enchantment", located in *Vitória* (ES), assists children and adolescents with non-infectious diseases hospitalized or in day-hospital treatment, especially those from Oncology Nursing. The latter, due to the type of disease, are those that remain in the hospital environment for longer. Since 2004, more than 13,000 students/patients have been assisted, from kindergarten education through to high school education. The Hospital School has its own space within the physical area of the hospital where there is a single, large classroom, equipped with didactic materials and toys. In addition, the attendance of teachers is not restricted to the Hospital School space, as many children who are

unable to move receive their schooling on the ward, in their respective beds (*Associação Capixaba Contra o Câncer Infantil* [ACACCI], 2009).

The operation of the Hospital School is daily, except on weekends. The classes are performed in morning (7-11 hours) and afternoon (13-17 hours) shifts, with the teachers having another hour for planning after the classes. In the morning period, the class activities are primarily aimed at children of the Oncology-Hematology Outpatient Clinic, although children hospitalized on other wards can attend. In the afternoon period, the Hospital School is primarily for the children hospitalized on the Oncology Ward. The frequency of the child's participation in class activities depends on the length of hospital stay, and in the case of hospitalized children, the activities are daily. Children in outpatient treatment participate in class activities on the days of medical care (ACACCI, 2009; Motta, 2007).

The Hospital School of HINSG has the function of a regular school, i.e., to provide the students with the conditions to follow the contents of their own grade, preventing school dropouts and possible repetitions of the academic year. Therefore, the child that is hospitalized and enrolled in the class has the right for his/her studies to be considered after being discharged, upon proof of attendance and Hospital School evaluations, since each child is registered in the *Secretaria de Estado de Educação* (SEDU, State Education Department) as a student of the Hospital School. These tasks are performed by a team of 10 teachers (five in each period: morning and afternoon) linked to the SEDU, and an employee of the State Health Department, who acts as the class coordinator, as well as the family members of the children, volunteers of the ACACCI, and employees of HINSG (ACACCI, 2009).

## Instruments

The following instruments were used for the data collection:

1) Form for collecting the socio-demographic information of the participants: Including data on gender, age, schooling, religion, marital status of

the parents, parental education, parental occupation, and housing;

2) Consultation protocol for the medical data of the participants: Including data from the medical records of the Oncology ward containing information about the history of the disease and treatment, such as diagnosis, length of treatment, length of hospitalization, severity of illness, disease recurrence, previous hospitalizations, and reason for the hospitalization;

3) Child Behavior Checklist (CBCL) (6-18 years): Behavior Checklist for children/adolescents aged 6 to 18 years - (Achenbach & Rescorla, 2001; Rocha & Silveira, 2006) - scale consisting of 138 items, 20 of which relate to the assessment of social competence (activities, sociability, and education) and 118 to the assessment of behavior problems (anxiety/depression, isolation/depression, somatic complaints, social problems, thought problems, attention problems, rule-breaking behavior, and aggressive behavior). Three scales are classified from these items: Social Competence Scale, Syndromes Scale (Internalizing and Externalizing Problems) and Diagnostic and Statistical Manual of Mental Disorders (DSM) - oriented Scale.

The classification of the responses involves three variables: item false or behavior absent (score = 0); item partially true or behavior sometimes present (score = 1); item very true or behavior often present (score = 2). The gross score in each scale is converted into T-scores, allowing the classification of children as clinical, non-clinical and borderline. The clinical classification suggests that the evaluation of the mother indicates the need for professional help; the borderline range indicates the presence of behavioral problems at a level capable of generating concern; and the non-clinical range indicates that the child does not have behavioral problems sufficient to generate concern or require professional help (Rocha, 2012). In this study, the children referred to as borderline were included in the group of clinical children, as recommended by Achenbach (1991) for studies with the CBCL.

4) *Instrumento Informatizado de Avaliação do Enfrentamento da Hospitalização* (AEHcomp, Computerized Instrument for Assessing Hospitalization

Coping Strategies) (Moraes & Enumo, 2008; Motta, 2007; Motta & Enumo, 2010): Composed of software with 20 scenes depicting everyday situations in the hospital environment, to identify what children do, think and feel about their hospitalization condition (behaviors or coping instances), allowing their coping strategies to be analyzed from the justifications given for the choices of scenes. The AEH, in its printed and computerized versions, has been used in studies of the area (Carnier, 2010; Garioli, 2011; Moraes & Enumo, 2008; Motta, 2007; Motta & Enumo, 2004; 2010).

## Procedures

The instruments were applied in the General Oncology and Onco-Hematology wards; with an mean duration of 30 minutes for the AEHcomp and 50 minutes for the CBCL (6-18 years), 20 minutes for the interview and 40 minutes for the questionnaire with the parents.

At the start of the AEHcomp application, the child was asked what he/she thought, did or felt during the time in the hospital; and their response was recorded as audio and video. Subsequently, the child was presented with the first scene from a total of 20, first having to describe the situation shown, and then answer how much they identified with this situation during their time in the hospital. To record the response, the child marks a Likert scale on the same screen as the scene, which includes five options illustrated with gradually filled circles, the first being blank and the last completely filled, corresponding to the following responses: never, sometimes, a little, often and always. After choosing each scene, the child is asked to justify the answer, and then asked if the situation of the scene was used or helped in something.

The study was approved by the Research Ethics Committee of the Health Science Center of *Universidade Federal do Espírito Santo* (Process nº 217/09) and by the Research Ethics Committee of the HINSG (Process nº 61/2009). Thus, the study met the internal procedures of the two institutions as well as the requirements of Resolutions nº 196 of 10/10/1996 (Brasil, 1996), nº 251 of 07/08/1997

(Brasil, 1997), and nº 292 of 08/07/1999 (Brasil, 1999), governing research with humans.

The Form for collecting the socio-demographic information and the Medical Record data of the participants were qualitatively described to characterize the participants. The Computerized Instrument for Assessing Hospitalization Coping Strategies is answered by the child so that each marked item is assigned a value according to the standards established for the instrument, thus providing a score for each of the 20 behaviors presented in the scenes, and allowing the visualization of which scenes were chosen more and with what intensity.

Hospitalization coping strategies used were identified from the responses and justifications given by the children, with this analysis performed according to the categories proposed by Skinner and Zimmer-Gembeck (2007). In the CBCL (6-18 years), each of the 138 items is assigned a value ranging from 0 to 2; with this gross amount converted into T-scores, the data divided into scales, and the children classified as clinical or non-clinical, in accordance with the standards established for the instrument. These data were processed using the Assessment Data Manager software, which was developed to run the data from the Achenbach System of Empirically Based Assessment questionnaire. After analyzing the responses, the data obtained from the AEHcomp and CBCL were organized and analyzed descriptively. Content analysis was used to describe the importance of the Hospital School for the hospitalized children.

## Results

### Behaviors and hospitalization coping strategies of the children

In the Computerized Instrument for Assessing Hospitalization Coping Strategies, the scenes playing, talking, watching TV, taking medicine, and studying were chosen by all 18 children. The feeling anger scene was mentioned by all the children, and none chose the scene blackmail. The scenes least chosen were: thinking of escape (3) and guilt (5) (Figure 1).

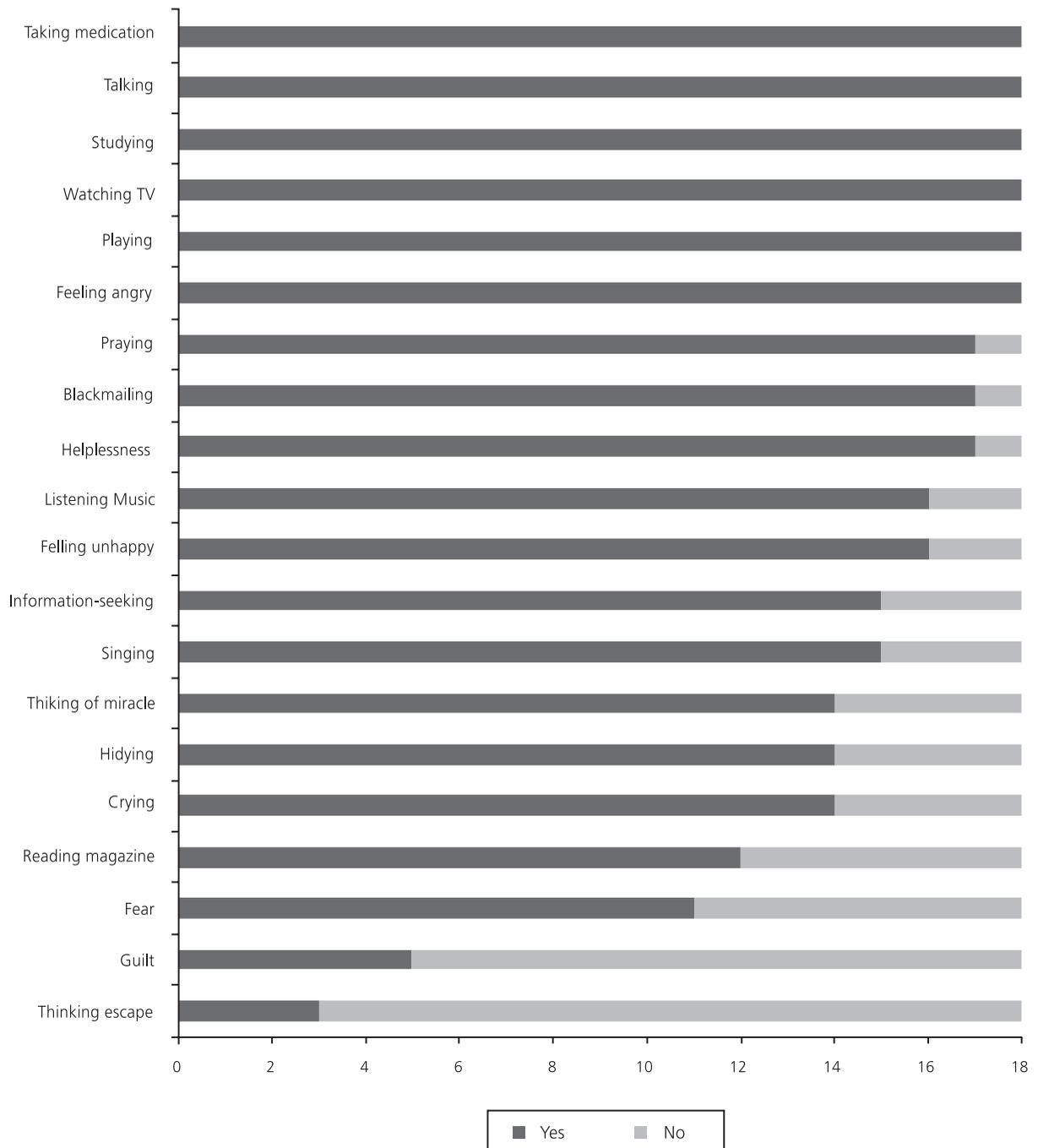


Figure 1. Frequency of choice of scenes from the Assessing Hospitalization Coping Strategies, classified as facilitating and non-facilitating, presented by hospitalized children.

The justifications given by children for the choices made in the AEHcomp were categorized according to Skinner et al. (2003), which, in a broad literature review, described categories in which behaviors and coping strategies can be classified. These categories were adapted by Motta

(2007) for the analysis of the AEHcomp, namely: problem-solving, support-seeking, escape, distraction, cognitive restructuring, rumination, helplessness, social isolation, regulation of emotion, information-seeking, denial, opposition, and delegation.

Based on this classification, 360 coping strategies were identified, of which the most frequent was distraction (100 justifications), as can be seen in the statements:

*Ah, I distract myself too, to pass the time. To not be doing nothing, then I pick up my MP3 and begin to sing; this distracts me a lot (C1, 12 years, Singing scene).*

*I play here, a lot, always. Because it's cool, funny. I think it helps just to pass the time (C5, 7 years, Play scene).*

Rumination was in second place (88 justifications), for example:

*Because it's very boring to stay here, without doing anything. I keep thinking that I will receive injections, will be tied to the bed; I think of bad things that can happen to me; I get sad there (C2, 9 years, Being sad scene).*

*A little bit. Because I wanted to go home, I missed my Mom, I cry a lot because I'm here (C13, 6 years, Crying scene).*

The coping family least identified was helplessness (2), with reports such as: *"Sometimes, I feel discouraged, because here there is almost no one for us to play with; no one to do anything with; you are alone, doing nothing"* (C4, 11 years, Discouraged scene).

This was followed by *cognitive restructuring* (8), as expressed in the report below:

*I don't cry, if I'm here in the hospital I'm taking care of myself, right? For me to not get sick. So, why would I cry? If I have to wait to get better, I will stay calm and wait for the situation to pass (C3, boy, 12 years, Crying scene).*

The strategies of social withdrawal, opposition and delegation were not mentioned by any of the children (Figure 2).

### Coping strategies associated with the behavior of studying and importance attached to the Hospital School by the child

Considering that one of the aims of this study was to explore the importance of the Hospital

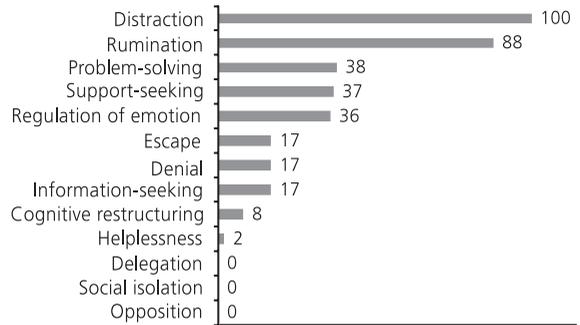


Figure 2. Frequency of coping strategy types presented by hospitalized children.

School for children hospitalized with cancer, the analysis of the results showed that coping strategies are more often associated with the behavior of studying. Thus, the reports of children allowed the occurrence of 20 coping strategies to be registered, of which there was a predominance of the distraction strategy (n = 12), when the child justified the behavior of studying through the function of helping to pass the time and/or play: *"It makes the time pass"* (C6, 9 years).

In addition to distraction, strategies of emotional regulation were identified, when the child reported an experience of well-being and/or happiness while studying: *"I remember my school and I'm happier"* (C11, 9 years). The behavior of studying was also associated with the problem-solving strategy, when the justification of the child evidenced an improvement in their clinical condition while studying: *"This is good for me, I am well again, I improve with this"* (C10, 10 years).

The cognitive restructuring strategy was recorded when the child referred to the behavior of studying as an indicator that the moment (hospitalization) would pass and life would return to normal: *"Because (when I study), I know I'm going back to school, I know my problem will end and I'll go back soon, I cannot miss the lesson"* (C7, 8 years). Studying also proved to be a chance to avoid the stressor: *"We forget everything that is bad in this place here!"* (C9, 9 years).

Specifically, the content analysis of the responses of the children to the survey on the importance of the Hospital School, revealed themes

that portrayed the class as a way to: a) provide a learning experience; b) maintain the schooling; and c) maintain the link with the school of origin. Five children did not respond to this question. The majority of the children stressed the importance of the Hospital School, reporting the learning experience (n = 9) in the space provided: *"When the teacher goes, she gives me homework, challenges, then I do it"* (C1, 12 years).

Maintenance of the schooling during the oncological treatment was also mentioned by four children. The following statement exemplifies this situation: *"I think it helps because when I need to go to school, the teacher has gone through the material, I won't have so many problems following it"* (C3, 12 years). Maintaining the bond with the school of origin was mentioned by one child who reported remembering the school when in the Hospital School, which made the child feel happy.

## Social competence and behavioral problems prior to the hospitalization

Among the children referred to as *clinical* in the CBCL (6-18 years), 17 (94.4%) had problems in the Problems Scale, and 4 (22.2%) in the Competences Scale, with impairments in competences related to practicing sports, performing tasks at home, and restricted participation in groups. In the Problems Scale, 13 (72.2%) were related to internalizing problems ("likes to be alone", "complains that nobody likes him/her", "feels worthless and inferior", in the anxiety/depression and withdrawal subscales); and 6 (33.3%) to externalizing problems ("is disobedient at home", "is disobedient at school", "breaks rules at home, school or elsewhere", in the rule-breaking behavior and aggressive behavior subscales) (Table 1). It is important to point out that no child was

Table 1

Frequency and percentage of hospitalized children referred to as *clinical* in the behavioral problem scales of the Child Behavior Checklist (6-18 years)

Variables	Clinical N	% (n=18)	T score Mean
<i>Problems Scale</i>			
Total problems	17	94.4	66.6 (±3.9)
Internalizing	13	72.2	68.1 (±2.6)
Externalizing	6	33.3	65.7 (±3.1)
<i>Behavioral syndromes</i>			
Anxiety/depression	3	16.7	67.7 (±1.5)
Withdrawal	9	50.0	68.3 (±3.7)
Somatic complaints	12	66.7	69.3 (±3.9)
Social problems	7	38.9	70.0 (±4.4)
Thought problems	6	33.3	68.8 (±2.6)
Attention problems	2	11.1	66.5 (±0.7)
Rule-breaking behavior	5	27.8	70.0 (±1.9)
Aggressive behavior	3	16.7	67.0 (±1.7)
<i>Diagnostic and Statistical Manual of Mental Disorders</i>			
Affective problems	9	50.0	70.2 (±2.5)
Anxiety problems	9	50.0	66.4 (±2.2)
Somatic problems	15	83.3	70.3 (±5.6)
Attention Deficit/Hyperactivity Disorder	5	27.8	69.6 (±3.9)
Opposition and defiance problems	0	-	-
Aggressive behavior	8	44.4	67.9 (±1.6)
<i>Competences</i>			
Activity	4	22.2	34.3 (±1.5)
Social	0	-	-
School	4	-	-
Total		22.2	38.0 (±1.4)

referred to as *clinical* in social and school competence, from the reports of the mother and/or companion.

In the Diagnostic and Statistical Manual of Mental Disorders - Oriented Scale, 15 children (83.3%) were referred to as *clinical*. In the Somatic Problems Subscale, the children presented problems such as: "*Has trouble sleeping*", "*Has temper tantrums, or hot temper*", "*Is always whining*", "*Is unhappy, sad or depressed*". In the other scales, the majority of the children were considered *non-clinical* (Table 1).

## Discussion

The hypothesis was raised that attending the Hospital School could support a more favorable evaluation of the situation by the children, which would bring the child closer to more adaptive development results. The data from the AEHcomp (Moraes & Enumo, 2008; Motta, 2007; Motta & Enumo, 2010) provide indicators in this direction, as five of the main hospitalization coping behaviors most chosen: playing, talking, watching TV, taking medicine, and studying (with the exception of feeling angry), relate to instances of coping understood as favorable to the process of adaptation to the hospital environment (Skinner et al., 2003). The playing behavior, in particular, was justified in various ways, showing that the children play in the hospital and are creative, as they include the game in the context of hospitalization, even when toys are not available.

The high selection of the feeling angry behavior in the AEHcomp may indicate that the children did not feel comfortable with the limitations and consequences of the hospitalization, such as the lack of freedom to play or walk on account of having to take the medications. This choice can also be related to the lack of privacy, as they are in the room with other children who cry a lot, making it difficult to sleep or watch TV at the times desired; in addition to the routine itself of the hospital and the distance from relatives and friends.

These results corroborate the data presented by Moraes and Enumo (2008) with children

hospitalized for various diseases, and by Motta and Enumo (2010) with children hospitalized with cancer; with the most chosen behaviors being: taking medicine, talking, praying, crying and being sad. The behavior of talking suggests support-seeking; and the behavior of taking medicine demonstrates the direct collaboration of the child in order to be cured and return to the home environment.

The coping families or coping strategies more frequent in this sample were distraction and rumination, followed by the strategies of problem-solving and support-seeking. The children, including the youngest, usually presented four such coping families - support-seeking, problem-solving (and instrumental action), escape, and when this was not possible, distraction. There are therefore differences in coping in the 4 to 12 years age group (Skinner et al., 2003). The younger children in the sample, aged 5 to 7 years, presented three main coping strategies: support-seeking, rumination and distraction. While the older children had as the main coping strategies: problem-solving, support-seeking and emotion regulation, which can be understood as greater cognitive maturity to justify their choices of behaviors and strategies faced with hospitalization. These results support the data of Moraes and Enumo (2008), who also found rumination and distraction to be the main strategies of hospitalized children. In the study by Motta and Enumo (2010), rumination appeared as one of the main strategy in the pretest, with this strategy being less frequent in the sample after the psychological intervention. In the work of Carnier (2010), with children in a pre-surgical situation, between 7 and 8 years of age, the strategies most identified were: distraction, problem-solving and support-seeking, followed by the cognitive restructuring and emotional regulation strategies.

In the Computerized Instrument for Assessing Hospitalization Coping Strategies, it was observed that all the children chose behaviors that were favorable to the hospitalization process, such as playing, talking, watching TV, taking medicine and studying. Although it is not possible to statistically relate the reports of these behaviors to the fact that they were children attending the

Hospital School, it was seen that more facilitative behaviors were present among the children of this study, extending the possibility of the use of more adaptive strategies, such as distraction, especially when considering the frequency of these behaviors in previous studies. The studies of the area (Almeida & Albinati, 2009; Sandroni, 2008) have shown that the Hospital School favors a more rapid improvement in the patient's clinical condition, which can be observed by the coping strategy most identified - distraction. Added to this is the fact that all the children chose the studying scene, considering that studying in the hospital setting occurs due to the presence and operation of the Hospital School, as all the children of the sample received assistance from the teachers, giving continuity to their studies.

Given this, it is worth mentioning that the children could understand the importance of the Hospital School as a way to learn and maintain the schooling - and this is in line with the proposal of the Hospital School as public policy (Zombini, Bogus, Pereira, & Pelicioni, 2012). Furthermore, the behavior of studying was associated not only with the "distraction" coping strategy, but also with emotional regulation, problem-solving, cognitive restructuring, and avoidance of the stressor. This fact shows that the Hospital School, as a place that promotes the behavior of studying, may contribute to increase the coping repertoire of hospitalized children.

Additionally, the Child Behavior Checklist (6-18 years) classification indicated the presence of behavioral problems at a clinical level, according to the reports of the parents, with a predominance of internalizing problems, a result also observed in studies with children with chronic diseases (Robinson, Gerhardt, & Vannata, 2007). Conversely, the children in this sample, assisted in the Hospital School, presented preserved social and school competence. In this case, actions, such as the implementation of Hospital School and playrooms may be acting as protective factors for the development of these children. It is believed that hospitalized children could benefit from psychosocial support to deal with the adverse conditions imposed

by this environment (Costa Jr., 2005; Castro, 2007). The data obtained in this study with the AEHcomp showed that the frequency of choice of behaviors and strategies that favor coping with hospitalization were higher in the children of this sample, compared to other studies with hospitalized children that did not attend the Hospital School (Carnier, 2010; Garioli, 2011; Moraes & Enumo, 2008; Motta & Enumo, 2010). It is understood that the data may reinforce the hypothesis that the Hospital School encourages the use of internal and external resources capable of facilitating the hospitalization coping process.

Other studies comparing groups of children from the same institution, included or not in the Hospital School, could provide data to better comprehend the effects of inclusion in the Hospital School on the hospitalization coping strategies. Similarly, other studies with the Hospital School, being scarce in the health area in general, especially in Psychology, could examine other aspects, such as student-teacher and student-student interactions, the teaching-learning system in this context, and the evaluation of the Hospital School by health professionals, parents and the children themselves.

In summary, this study has discussed the Hospital School from the Psychology perspective and revealed the importance attached by the children of being included in this educational context, which is part of the public policy regarding Special Education. It was intended thereby to contribute to providing professionals working with these children, in health or education, with information relevant to the construction of their professional practice.

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