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Parental stress and satisfaction with children's hospitalization. A prospective study

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Resumen

La hospitalización infantil representa una crisis para toda la familia. Resulta evidente que la privación de la convivencia familiar, como consecuencia de la hospitalización, modifica de forma sensible y relevante la conducta del niño y de sus familiares. Las familias con niños enfermos que no logran un adecuado ajuste ante la hospitalización son en su mayoría las que tienen niveles más problemáticos de adaptación, incluso antes de la enfermedad. La buena comunicación entre los padres se asocia con una mejor adaptación a la hospitalización. Paralelamente, la adaptación de uno de los padres es un buen predictor del consiguiente cambio de actitud y ajuste del otro cónyuge.

Es importante no olvidar que el clima familiar es considerado como una variable destacada en la adaptación y ajuste del niño a su enfermedad.

Dado que las reacciones de los hijos están en gran medida influidas por las de sus padres, es preciso prestar atención a las influencias de los padres sobre las experiencias emocionales de los niños hospitalizados. Las actitudes de los padres y sus expectativas pueden mediar la percepción infantil y las reacciones del niño ante los eventos médicos. Puede establecerse, por tanto, una cierta relación entre la ansiedad parental y el estrés experimentado por el niño ante su ingreso.

Como vemos la hospitalización infantil suele llevar asociados determinados problemas psicosociales, conductuales y educativos, que pueden ser tratados adecuadamente si trabajan en equipo los profesionales implicados. Las investigaciones experimentales han demostrado los efectos positivos de las intervenciones psicológicas, sociales y pedagógicas en el terreno de la hospitalización infantil. Preparar a los niños y a los padres para la hospitalización, ofrecer actividades recreativas, educativas y apoyo emocional, reduce los posibles trastornos psicológicos de los pacientes pediátricos y promueve su normal proceso de desarrollo.

Estos programas —relativamente recientes— de intervención en el campo de la hospitalización infantil tienen como objetivo principal tratar las necesidades psicosociales del niño enfermo y de sus padres. El reconocimiento de la importancia dada a esta preparación psicológica de los niños ante la hospitalización y la intervención quirúrgica se refleja en la práctica actual. El 70% de los hospitales pediátricos en EE. UU. ofrece actualmente preparación prehospitalaria a niños y padres.

A pesar de esta actitud positiva hacia la preparación a la hospitalización, han sido pocas las investigaciones que claramente demuestran la efectividad de los programas específicos de preparación. Las investigaciones realizadas en este contexto no están por lo general adecuadamente diseñadas y se hallan plagadas de dificultades metodológicas. Otro obstáculo para estas investigaciones ha sido la falta de instrumentos estandarizados y de diseño apropiado para la evaluación de los resultados de estos programas.

En esta misma línea los autores del presente trabajo realizaron un estudio basado en el diseño y aplicación de un programa de preparación al ingreso y seguimiento psicopedagógico del niño hospitalizado que ha sido aplicado a un grupo de niños/as, de edades comprendidas entre los 8 y los 12 años. Nuestro programa no se limita a trabajar únicamente con el niño, sino que pretende satisfacer otros aspectos relevantes —y con frecuencia descuidados en otros programas—, como la información a los padres.

De los resultados obtenidos se desprende que la aplicación de un programa de preparación al ingreso y seguimiento psicopedagógico a un grupo de niños hospitalizados disminuye los efectos psicológicos negativos que, sobre el niño enfermo, tiene la hospitalización de media duración.

Aunque el objetivo principal de nuestro programa era el paciente pediátrico, no obstante, empleamos ciertas estrategias de intervención con los padres, evaluando en ellos algunas variables que nos sirvieran de control, tales como: el clima familiar, el estrés paterno, la satisfacción de los

padres con la hospitalización y el locus de control.

Las diferencias entre las puntuaciones medias obtenidas por los padres de los niños del grupo de control y del experimental no son significativas al nivel de confianza del 95%. Ello indica que nuestro programa no ha tenido una incidencia directa sobre los padres de los niños hospitalizados del grupo experimental.

Sin embargo, y consistente con los resultados de investigación previas, los resultados de la presente investigación corroboran la postura mantenida a lo largo de este trabajo que apunta hacia

la necesidad de elaborar programas de intervención en el ámbito de la hospitalización infantil, a causa del impacto positivo que éstos tienen sobre el bienestar psicológico del niño y su familia. No obstante, consideramos irrenunciable en un futuro próximo diseñar un programa concreto de intervención cuyo fin sea incidir y optimizar la satisfacción de los padres de los pacientes pediátricos, y consiguientemente reducir su estrés frente a la hospitalización.

(Act Ped Esp 1992; 50: 472-479)

Summary

Child hospitalization represents a crisis for the whole family. Hospitalization is associated with several variables including separation from family environment. This factor negatively affects the emotional adjustment of the child and his family.

Abundant research shows that preparation for hospitalization reduces the adverse psychological effect on the child and his family. An undeniable new awareness is taking place with respect to the need to give special attention to the question of hospitalized children and their families in order to counteract those adverse psychological effects which frequently result.

The present study is based on the design and application of a program for preparing sick chil-

dren for hospitalization, as well as in-hospital psychopedagogical follow-up. Although the main objective of our program was the pediatric patient, we also employed some strategies of intervention with parents assessing some variables as familiar climate, parental stress, and parental satisfaction with hospitalization.

The difference between parents from the control group and parents from the experimental group was not significant (reliance level of 95%). Nevertheless, the results corroborate the need to design effective intervention programs to the positive effects on children and their family as has been shown by other reports.

(Act Ped Esp 1992; 50: 472-479)

Introduction

The majority of research shows that the emergence of an illness during childhood generates important conflicts in the family (Sargent, 1983; Mintzer, 1984; Affleck, 1985; Yarcheski et al, 1987; Dyson, 1989; Frey et al, 1989).

If the illness is severe enough to warrant child's hospitalization the initial conflicts are different. The patient must necessarily become adapted to physical changes (brought on by treatment, surgery, etc.) and to new daily routines affecting eating and sleeping habits and which include, among other things, medical treatment. Contact with family and friends is restricted and new relationships with hospital personnel and other patients in a totally new environment come into play.

Moreover, there exist numerous variables associated with the phenomenon of hospitalization including separation from family environment. This factor is explicitly adverse to the emotional adjustment of the child and his family.

Hospitalization in itself represents a crisis for the whole family. A series of interacting mutual reactions between the child and his family lead to the development of quite varied emotional, cognitive and behavioral responses with negative psychological effects for the person (Sargent, 1983).

Families with an ill child that does not manage adequately with the illness are, in most cases, those with big adaptation problems, even before illness emerged. A good communication between parents is associated with

a better adaptation to illness. Similarly, the good adaptation of one parent is the best way to change the other parent's attitudes.

It is very important to notice that family atmosphere is considered as a notable variable in the adaptation and adjustment of children to illness.

Due to the fact that children's reactions are under the influence of their parents, it is necessary to attend to parents' influences on the emotional experiences in hospitalized children (Lyman, 1985; Teichman, 1986; Spielberger, 1990; Kashani et al., 1990). Family attitudes and their expectatives can affect the child's perception and his reaction before medical treatment. It is possible to establish a relation between parental anxiety and children's stress before the admittance to hospital.

Parental influence on their children depends mainly on two factors: on the general characteristics of the relationships between parents and children, and on the parental attitudes about the children hospitalization. Anxious parents transmit this emotion to the child. We do not have to forget that parents, and concretely mothers, are the principal companions of the pediatric patient during the hospitalization period.

Pitts-Tucker (1988) investigated parents that stayed day and night with their hospitalized child. The main reasons expressed by parents to stay at hospital were the long distance from home to the clinic and the severity of the child's illness. Mothers felt an enormous need to stay with their children, particularly in cases of children under five.

Problems for staying at hospital appear when there are in the family other children and nobody can look after them during hospitalization. Mothers were worried about brothers and sisters of the pediatric patient because they could be prived of attention and care. Practical difficulties as to pay attention to the other children or work responsibilities as well as hospital restrictions, do not offer a more generalized parental permanence.

On the other hand research on medical bibliography, about the psychological effects during a pediatric surgical intervention when parents are present, shows that children cry more when a parent is present (Dahlquist and Czyzewski, 1989). Attending this, we must conclude that medical procedures must be applied with the non assistance of parents.

Nevertheless we must take into account another ethic aspect. To separate systematically children from parents to avoid children crying can save medical staff troubles, but it is possible that the patient increases the stress when his parents are not present, even if crying disappears. In this way and following Jay, 1988, although it is proven that children cry more during medical treatment when parents are present, it is also true that their cognitive, effective and emotional stress is reduced when they have a «support figure».

Need for psychopedagogical intervention in pediatric hospitalization

As we have seen, children's hospitalization is associated with psychosocial, behaviour and educative problems that can be overcome with an appropriate team work of the professionals involved. Moreover, it is not usual that health professionals are well prepared to attend psychological and social needs of this kind of patients and families.

In spite of acknowledgement of the impact that pediatric illness has on family life, and the importance that family has for a good adaptation to illness there are not too many researchs in psychopedagogical intervention on families (González et al., 1989).

The aim of intervention strategies is to obtain an effective adaptation of the whole family and, of course, of the pediatric patient. Everybody in the family must be informed about the illness and its implications, making each one responsible of the children's treatment and care. Parents must work together in order to get a good control of the illness.

Abundant research shows that preparation for hospitalization reduces the adverse psychological effects which this can cause in the child and in his family. The absence of orientation and support offered by teachers, psychologists, parents and hospital staff poses an added risk for the onset and sequels of psychopathological manifestations. These manifestations have their effects on the poor clinical evolution of the patient, with the consequent need for prolonged hospitalization. A vicious circle is thus created in the general state of the mental and physical health of the hospitalized child with repercussions affecting the family, reentry into the home, readjustment at school, etc.

All of this necessarily leads to the elaboration and implementation of orientation and in hospital follow up programmes.

The preparation of children for hospitalization has received considerable attention in recent psychology, health and behavioral medicine publications. An undeniable new awareness is taking place with respect to the need to give special attention to the question of hospitalized children and their families in order to counteract those adverse psychological effects which frequently result. To this end, the design of orientation program for hospitalization and the implementation of various procedures and strategies are considered as imperative (Atkins, 1981; Giloth, 1990).

An experimental study

In the same line, we have investigated in the design and implementation of a program for preparing the sick child for hospitalization as well as for subsequent psychopedagogical in-hospital follow up. Such a program is an attempt to reduce the anxiety and depression of the

hospitalized child, to develop a series of social skills and an internal locus of control in the pediatric patient and to avoid the formation for negative self-concepts.

This program has been applied on an experimental basis to a group of forty girls and boys, between eight and twelve years of age at the Clinica Universitaria of Navarra. They were divided in two groups: a control group and an experimental group. Each group was composed of twenty children (10 males and 10 females).

Description of the psychopedagogical program

The program begins on the first day of hospitalization. The first objective is to establish a good rapport between the person in charge of administering the program and the child. An interview is the mean which has been chosen to achieve this.

After a tour to the hospital takes place, the child is given the opportunity to observe, touch and ask questions, in order to verify whether he understands what he has been shown. Special attention is given to the pediatric ward.

Follow up stage

For the purpose of reducing stress, anxiety and physical pain that medical treatment can produce in the child three intervention techniques were applied:

a) Relaxation. The person in charge of the program showed the child certain relaxation techniques. This helped the patient to cooperate more actively, and to lower his pain threshold.

b) Cognitive approaches. The imagination was guided so that the patient can reinterpret pain as something agreeable.

c) Three times a week social behaviour training is performed. For each child target skills were chosen according to the individual needs (complaining and being complained to, asking favors, saying no, asking why, relating to persons of a different social status, conversations, etc.).

The follow up program was accompanied training in self control. The child was instructed to evaluate his own behaviour, specific actions which were targeted for either modifying, maintaining or discontinuing.

A chip economy system is practiced for the regulation of reinforcements.

The person in charge of administering the program informed the parents concerning the regulations and routines of the clinic. A copy of the European Charter of the Rights of the Hospitalized Child (approved in 1986 by the European Parliament) was given to the parents. Parents were encouraged to participate in the child's hospital experience and to maintain close contact with him. They were informed of the importance of their attitudes in helping the child to cope with his anxiety and failure to adapt in order to contribute to a better recuperation and a lessening of psychological trauma.

Likewise, parents were advised of the importance of their own psychological reactions and responses as decisive influences on their child; that their own fears and anxiety can easily be transmitted to the child, to his detriment.

Finally parents were introduced to some of the nurses on the ward who will come in direct contact with the child. They were encouraged to maintain daily contact, and their child as well, with the person in charge of the program.

In order to verify the effectiveness of the intervention at the end of its application different variables were evaluated at the beginning of the child's stay and reevaluated at the end to discover whether any significant changes had taken place in these variables.

The effects of our program were examined using an analysis of covariance. The results of this investigation suggest these conclusions:

1. The state-anxiety of the pediatric patients was reduced immediately after receiving a series of methods for preparing children for hospitalization as a personal interview and a tour of the hospital (cfr. Lizasoain y Polaino, 1991, in press).

2. Children that received the psychopedagogical intervention program suffer less rates of trait-anxiety during hospitalization than children from the control group (cfr. Lizasoain y Polaino, 1991, in press).

3. Children that received the program of intervention suffer less rates of depressive symptomatology than children that didn't receive then program (cfr. Lizasoain y Polaino, 1992, in press).

4. Self-concept in pediatric patients that received the intervention program wasn't devaluated during hospitalization (cfr. Lizasoain, 1991).

5. Social skills were significantly developed in hospitalized children who received the intervention program.

6. Children from the experimental group developed an internal locus of control, and children from the control group developed an external locus of control after the hospitalization period.

The results of this investigation clearly indicates that children that received the program of preparation for hospitalization and psychopedagogical follow up suffer less psychopedagogical effects derived from the hospitalization period.

Although the main objective of our program was the pediatric patient, we employed some strategies of intervention with parents, assessing some variables of control as familiar climate, parental stress, parental satisfaction with hospitalization and locus of control. This variable makes reference about parents' beliefs, attitudes and behaviours upon their sick children's recovery, adjustment to illness, utilization of medical care services and regimen compliance.

The instruments that we used for measuring parental variables were:

1. Scale of Social Climate: Family FES (Moos et al., 1974; Spanish adaptation from Fernández-Ballesteros y Sierra, 1984).

This scale measures the socio-ambientals characteristics of the family environment and the relationship between family members. The scale has been validated with Spanish sample. Coefficients Test-retest for subscales: 68-86.

The scale consists of the following subscales:

- Cohesion (CO): degree of compenetration between family members and how they help and rely on each one.

- Expressivity (EX): degree of permission to the family members to act freely and to express his feelings directly.

- Conflict (CF): degree of the anger, agressiveness and the conflict between the family members is expressed freely.

- Autonomy (AU): degree of family members who are self-confident, self-sufficient or make their own decisions.

- Action (AC): degree of activities (school or work) are involved in a structure oriented to the action of competitiveness.

- Intellectual-Cultural (IC): degree of interest in politics, social, intelectual and cultural activities.

- Social-Recreative (SR): degree of participation in this kind of activities.

- Morality-Religiosity (MR): importance given to this kind of values.

- Organization (OR): importance given to a clear organization and structure to planify activities and family responsibilities.

- Control (CN): degree of family life is under preestablished rules.

2. Parental Stressor Scale -PSS- (Miles and Carter,

1983; translated and adapted to Spanish by A. del Pozo y A. Polaino, 1989).

Is designed to measure parental perception of environmental stressors experienced during their child's hospitalization.

The questionnaire has seven dimensions: sights and sounds; procedures; child's appearance; child's behavior and emotional response; staff communication; staff behaviour and parental role alteration. A total score can be obtained. Coefficient of reliability ranged from .73 and .92. Chronbach's alpha .96. Significant correlations with instruments that measure anxiety.

3. Parental Medical Interview Satisfaction Scale -PMISS- (Lewis et al., 1986; translated and adapted to Spanish by A. del Pozo y A. Polaino, 1989).

The questionnaire measures parent satisfaction with children's medical encounters. Four subscales are identified: physician communication with parent; physician communication with the child; distress relief; and adherence intent. Physicians' interpersonal skills to parents during medical interviews correlated significantly with parents' total satisfaction scores as well as with all form satisfaction subscales scores.

4. Child Improvement Locus of Control Scales -CILC- (Devellis, 1985; translated and adapted to Spanish by O. Lizasoain y A. Polaino, 1989). Is a multidimensional instrument intended to measure parental beliefs concerning who or what influences the improvement or recovery of their children.

The scale consists of five separate scales:

- Factor I. Professional. Reflects the parents' belief that their child's improvement is a function of the efforts of experts.

- Factor II. Divine influence. It represents the parents' belief that their child's improvement is a function of some kind of divine intervention.

Table I. Descriptive statistics for the variable family climate (family communication, expressivity of feelings, degree of conflicts, autonomy of members, degree of activities, intellectual worries, relationships, importance of morality, degree of organization and family control). (N=39)

Variables	Mean	Standard deviation	Coefficient of variation	Range
Communication	7.87	1.10	14.03	5
Expressivity	4.85	1.18	24.39	6
Conflict	2.36	1.42	60.33	7
Autonomy	5.49	1.25	22.85	6
Action	6.70	1.03	15.39	6
Culture	5.13	1.69	32.93	8
Sociale R.	4.95	1.81	36.49	8
Morality	6.31	1.36	21.56	6
Organization	7.03	1.33	18.90	6
Control	4.38	1.33	30.33	7

- Factor III. Parent. Reflects parental beliefs that their actions influence their child's improvement or failure to improve.

- Factor IV. Child. Reflects the parents' belief that their child's improvement is a function of the child's own efforts and self-help.

- Factor V. Chance. Reflects the parent's belief that their child's improvement is a largely, a matter of fate or some other factor beyond human control.

The five scales maintained their factor structure and internal consistency. Correlations with other scales have provided initial evidence of validity.

We refer the results obtained after analysing the data from evaluation scales for parents.

Table I shows descriptive statistics of the variable family climate. The biggest punctuation is obtained in the subscales communication and organization, and help between family members, as soon as a clear structure in the planification of activities and family responsibilities.

This result doesn't seem strange taking into account that those factors are very important in a family with an ill and hospitalized child. We have noticed that the diagnosis of a child illness represents an enormous shock for the whole family that leads to the need of a new organization of activities and responsibilities (Sargent, 1983; Affleck, 1985), as soon as a very good communication between members and help for the adaptation process to the illness (Wertlieb et al., 1986; Burckhardt, 1987).

Morality factor is also highly punctuated. The importance given to the religious values is well considered for the adaptation to illness. That is no strange making account that is in those bad moments when we specially need the divine influence.

The rest of the subscales punctuations is in consonance with the mean of the normal population.

In relation to table II, that reflects punctuations from Parental Locus of Control Scale, we have point that the factor most punctuated has been medical staff. This fact shows that professionals are seen by parents as the principal agent in order to achieve the recovery of the child. On the opposite hand, factor chance is not punctuated.

Parents also believe that the efforts of the child contribute to his recovery. They punctuated considerably the factor parents and God, attributing an important to the parents' action for the child recovery and showing their confidence on the divine influence. This idea correlates with the result obtained in table I about factor morality.

Referring to the variable parental stress experience during their child's hospitalization -table III- punctuations are not too high, they are equivalent to a punctuation moderately low.

The highest stress corresponds to the factor symptoms. This factor includes the subfactor referred to the parental stress caused by the other hospitalized children (one of the highest punctuated). We can explain this

Table II. Descriptive statistics for the variable parental locus of control, with regard to these factors: chance, child, God, parents and medical staff. (N=37)

Variables	Mean	Standard deviation	Coefficient variation	Range
Chance	2.03	.85	41.97	4.6
Child	3.60	1.00	27.70	5.7
God	4.82	1.31	27.11	6.0
Parents	4.29	.93	21.64	4.5
Sanitary Staff	5.44	.69	12.77	2.8

result easily because in the pediatric ward there are many patients with oncologic procedures and these procedures have an important impact on the child as alopecia, vomiting, weight lost, etc.

We also studied the correlations between the subscales of the variable parental stress and the most significant results were:

- Stress caused by a lack of communication with medical staff correlates with stress caused by changes on child's behaviour (0.67) and with the stress caused by changes on parental roles (0.66) that explain a 45% and a 44% of that variation. That showed us that communication between doctor and parents is decisive in order to reduce parental stress.

- There are significant correlations between stress caused by changes on the child's behaviour and stress caused by changes on parental roles (0.66) that explain a 44% of the variation. Changes on children's behaviour can be understood by parents as a lost of their parental roles.

- The variable referred to changes on parental roles

Table III. Descriptive statistics for the variable parental stressor caused by child's physical appearance; symptoms; procedures; medical staff; communication with the doctor; changes on child's behavior; hospitalization impact on the parental roles and the general impact caused by hospitalization. (N=37)

Variables	Mean	Standard deviation	Coefficient variation	Range
Child's appearance	1.02	1.23	120.04	6
Symptoms	2.64	1.43	54.29	5
Procedures	1.71	.64	37.37	3
Staff	1.24	.85	68.57	4
Communication	1.55	1.09	70.07	5
Child's behaviour	1.87	.73	39.09	5
Roles	1.84	1.32	72.10	6
General impact	2.40	1.04	43.23	5

constantly obtains the highest coefficients with the other variables of the stress' subscales: 0.33 with stress caused by the child physical appearance; 0.27 with stress caused by symptoms; 0.29 by stress caused by procedures; 0.66 and 0.67 with stress caused by the absence of communications between the doctor and the family and by changes of the child's behaviour, respectively; 0.55 with stress caused by medical staff behaviour and 0.61 referred to stress caused by the hospitalization *per se*. All of this explains the importance of this variable in order to predict the parental stress with hospitalization.

Table IV presents a summary of descriptive statistics for the four Parental Satisfaction with Hospitalization subscales. Generally they show a high parental satisfaction with hospitalization.

The higher mean corresponds to the subscale adherence intent, that suggested a positive and cooperative parental attitude in their desire of following the prescriptions and instructions given by the doctor.

The lower mean corresponds to the subscale physician communication with the child. We can say that although parents are very happy with physicians' interpersonal skills during medical interviews, they affirm to have some doubts about the relationships between the child and the doctor, because in most of conversations the child isn't present and they fear that the child isn't communicative because shame, fear or disinterestedness.

Pantell et al. (1982) have shown in their researchs that doctors that speak more with children generate more satisfaction in the patient's parent. It is demonstrated that the doctor can reduce the parental anxiety through the dialogue with the child (Barbero, 1984). In the same way a very good physician-parent relationship is directly involved on the adaptation of the child to his illness.

An important factor in order to predict the satisfaction with hospitalization is the communication between doctor and patient. The patient feels more satisfied if he perceives that the physician is sensible to his own characteristics and needs.

Another determinant of satisfaction during hospitalization is the attention and care given by nurses. The patient is more satisfied with the medical care, participates actively with the procedures and diets, and consequently his recovery is better.

On the other hand the satisfaction of parents with the medical environment is a good predictor for a favourable result on the child evolution (Lewis et al. 1986).

In table V we can observe that the differences between the results obtained by parents from the control group and experimental group are very similar.

If we take into account that those variables are evaluated only once and they aren't reevaluated with post-test, we can conclude that the intervention program has not had effect on parent's attitudes.

To control the influence of contextual variables as the permanence or not of parents at hospital, or the fact

Table IV. Descriptive statistics of the variable parental satisfaction with hospitalization with regard to: physician communication with parent; physician communication with the child; distress relief; and adherence intent. (N=37)

Variables	Mean	Standard deviation	Coefficient variation	Range
Physician Communication	5.43	.80	14.74	5
Child-physician Communication	8.70	1.08	12.37	5
Distress Relief	4.22	.89	21.02	4
Adherence	3.65	.79	21.63	5

that patients were from Pamplona or another region, we studied the influence of those variables on children's anxiety and depression, and we didn't find any significative differences between groups.

Conclusions

This paper is directed to the study of psychosocial consequences that children's hospitalization has on parents, and tries to justify the need of intervention program like this one. That is the reason of our experimental basis research.

After discussing and analysing the results we can conclude that the application of a program to prepare children for hospitalization as well as for subsequent psychopedagogical in-hospital follow up, reduces psychopathological effects that a standard hospitalization period can cause on the sick child.

Table V. Statistics means of the variables parental stress and satisfaction with hospitalization in experimental and control group. Also we included the variables familiar climate and the five factors of the parental locus of control (chance, child, divine influence, parent and medical staff)

Groups means P.	Control	Experimental
Stress	1.9	1.6
Satisfaction	5.6	5.3
Familiar Climate	5.9	5.9
Chance	2	2
Child	3.6	3.6
God	5.1	4.6
Parent	4.4	4.2
Medical Staff	5.4	5.4

Nevertheless, the differences obtained between parents from the control group and parents from experimental group, are not significant with a reliance level of 5%. That shows that our program (cfr. Lizasoain y Polaino-Lorente, 1990; Polaino-Lorente y Lizasoain, 1990) did not have a direct influence on parents from the experimental group.

This result was expected because the purpose of our intervention program—even if it included some strategies of intervention for parents—wasn't destined directly to them. Our field of incidence was, mainly and quite exclusively, destined to children. All the scales applied to parents have been important factors for a better control of the experimental study.

The statistics analysis shows that parents feel a high satisfaction in their relationships with the physician and the clinical encounter. In the same way they point the medical staff as the principal agents in the recovery of their children. They also attribute to themselves an important factor on the child recovery and they believe more on the divine influence than on chance.

Changes on parental roles derived from the hospitalization are a pointed factor on the prediction of stress caused by pediatric hospitalization.

Taking into account other researchs, the results of this one corroborate the need for designing intervention programs on the field of children hospitalization due to the positive effects that they have, as on the children, on the family.

However, in a close future, we will design an intervention program directed to increase parental satisfaction with medical encounter and consequently, to reduce parental stress that pediatric hospitalization can cause on them.

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