Factors in Reducing Children's Anxiety About Clinic Visits

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SINCE a child's fears about an impending clinic visit may impede diagnosis of his case and treatment, the source of such fears is a matter of serious concern to physicians, nurses, other health workers, and parents. When a child patient comes to the pediatric clinic, he enters a world of large esoteric instruments and unknown procedures. Some physicians and nurses have expressed the belief that the informed child who knows what will likely be done to him will cooperate better (*1, 2*). Physiological measurements and examinations performed on a cooperative child will presumably be more accurate than those performed on a noncooperative one (*3*); moreover, the informed child should suffer fewer emotional aftereffects (*4*). Physicians and nurses holding these views therefore advocate giving the child patient prior information about any impending medical and surgical events to alleviate his apprehensions about them.

In practice, however, many physicians and nurses have reported that telling a child he is about to undergo some medical procedure—for example, a lumbar puncture, an intravenous medication, or removal of sutures—only serves to agitate the child. Whereupon, instead of the child's needing fewer restraints and sedatives, more are required. An additional staff member may even be required to hold the child. These physicians and nurses reason that it is better to start a procedure quickly without advance explanation to the child. Then, when it is a reality, the child will not complain as much as if he had received advance information.

Professionals in the mental health field and parents, however, regard the adverse emotional reactions of the child after such sudden intrusive episodes as too high a price to pay (*1, 5–8*). If we are to provide the child with the best physical and mental health care and insure that he will be a comparatively cooperative, calm patient, we need to discover what factors reduce his anxiety about an impending clinical event.

To learn whether certain behavior of the child and of his mother affect his anxiety about an impending clinic visit, the following factors were selected and studied:

1. The frequency of fearful reactions on the part of the child on prior medical visits
2. Anxiety of the mother in making her own medical visits
3. The amount of detail communicated by the mother to the child about the visit
4. Who initiated the communication about the clinic visit—mother or child

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5. The mother's attitude about the child's expression of fears.

We predicted that these five factors would be found to be related to children's anxieties about treatment or examinations.

Method

A sample of 50 mothers, selected at random from those who, with their children, were in the waiting room of the pediatric outpatient clinic of the University of California at Los Angeles for a clinic visit, was given a questionnaire. The mothers were assured that their answers would be held confidential and would be used "only in a study of children's ideas about the clinic visit." All 50 mothers agreed to participate.

While the mother was filling out the questionnaire, her child was being tested in a separate location to determine his level of anxiety about the clinic visit. The possibilty that anxiety caused by separation from his mother might have contaminated the measure of clinic anxiety is highly unlikely, since interviewers were trained to establish rapport with the mother and child. The initial contact with the child was made through the mother's introduction of the interviewer to the child. In addition, there was a habituation period during which the child initiated the separation from his mother. The child was told that the separation would be for only a short time and that he would be returned to his mother, who was waiting in the nearby room he had just seen.

Data on the 50 boys and girls between 4 and 12 years who were studied were grouped for analysis since we sought information that would be applicable to the majority of pediatric visits.

To measure the children's anxiety, Heffernan used a combination of the thematic apperception test (*9*) and an adjective checklist. Words in the inventory were selected from a beginning dictionary for children since children are known to have a larger recognition vocabulary than an expressive vocabulary (*10*). The child being tested was shown a picture of a child on an examining table. A picture had been selected that would not predispose the child to anxiety. The physician in the picture holds a stethoscope on the child's exposed back. The facial expressions do not show.

To elicit the feelings of the child being tested about the physician and the child patient in the picture, the child was told by the interviewer: "This is a picture of a patient in the doctor's office. Please tell me, Does the child feel afraid or safe?" After the child responded, other alternative pairs of possible responses were given to him: "Comfortable or fearful?" "Frightened or relaxed?" "Safe or worried?" "Nervous or rested?" "Calm or scared?" The interviewer pointed to the child in the picture before asking about each alternative pair of responses. The total values for all adjectives indicating an anxious feeling constituted the basis for the score given the child on the anxiety scale in respect to the impending clinic visit.

Prior determination of the coefficient for reliability among the two raters of the test yielded a value of 0.95 percent when the two raters tested the same eight children at 20-minute intervals.

The Questionnaire

To determine whether the child had shown anxiety on prior medical visits, the mother was asked on the questionnaire to choose a single answer to the question, "What has been your child's past reactions to the clinic visit?" from these four alternatives: Has (never— . . ., rarely — . . ., often— . . ., or always— . . .) been afraid.

The mother's anxiety about visiting her own physician was measured by asking the question, "When you go to the doctor or clinic, you most often feel afraid or calm?—comfortable or anxious?—frightened or relaxed?—safe or nervous? —scared or secure?" All the mothers, however, checked one or two words, rather than one of each of the five pairs as they had been instructed. Therefore we decided to base the score on the presence or absence of a response revealing anxiety. The presence or absence of responses indicating anxiety was consistent for every mother who had chosen more than one word. Of course if only one alternative was checked and that one denoted anxiety, anxiety was considered to be present.

We used two questions to determine the extent of detail in communications between the mother and child about the clinic visit. The first question was designed to assess the detail in communications initiated by the child and the second, to determine the detail in communications initiated by the mother. The questions asked were:

1. When your child asked questions or showed concern about visiting the doctor today, you told your child—

Not to worry.

Table 1. Relationship between frequency of child's fearful reaction on previous clinic visits, as reported by the mother, and his anxiety about impending visit

Previous fearful reaction	Number of children with anxiety about visit—		Total children
	Low	High	
Never	9	5	14
Rarely	11	10	21
Often	2	8	10
Always	0	5	5
Total	22	28	50

NOTE: $X^2=89.20$; $P<0.05$.

Table 2. Anxiety about impending clinic visit among children with suppressive and nonsuppressive mothers

Attitude of mother	Number of children with anxiety about visit—		Total children
	Low	High	
Suppressive	6	20	26
Nonsuppressive	16	8	24
Total	22	28	50

NOTE: $X^2=9.62$; $P<0.01$.

Why the doctor was going to examine him.
All the details of what the doctor was going to do, including a description of the instruments he would use.

2. You told your child that today he would be going—
Somewhere and that he or she would find out where on arrival.
To see the doctor.
To see the doctor for treatment of his or her ailment.
To see the doctor for treatment with certain instruments, which you described to your child.

To assess the mother's attitudes about the child's expressing his fears, the mother was asked on the questionnaire: "When your child is afraid or frightened, he should, or should not, be allowed to cry?" Mothers who chose the alternative "should not" were classed as suppressive of expressions of fear and those choosing "should" were considered as nonsuppressive. The rationale for not regarding age as a variable was that segregation of the sample by age was not methodologically feasible because of the limited size of the sample—50 children. Moreover, we sought to identify factors negatively affecting children's medical treatment which would lend themselves to remediation regardless of a child's age level.

Results

Ten of the children had a score of zero, indicating the relative "absence" of any anxiety. A score of zero anxiety does not indicate the complete absence of anxiety since nominal, rather than ratio, scales were used. Children who had a median score of 3 or more of a possible 6 on the anxiety scale in respect to the clinic visit were considered to be high in anxiety; all others were classed as low.

Table 1 shows that a greater number of children with high anxiety about a clinic visit were reported by their mothers as having been at least "often" anxious on previous clinic visits. An interaction was also found, moreover, between the mother's report of the child's previous anxiety about a clinic visit and the mother's attitude about the child's expressions of fear. That is, nonsuppressive mothers who rated their children as being never, or rarely, afraid all had children with low anxiety about the impending clinic visit, whereas suppressive mothers who perceived their children as having been never, or rarely, afraid on prior clinic visits all had children with high anxiety about the impending visit.

Suppressive mothers had a significantly greater number of children with high anxiety than nonsuppressive mothers (table 2), regardless of whether the mothers reported that the children had been anxious on previous visits. Significant numbers of children with anxiety about an impending clinic visit had mothers with the same anxiety about their own visits (table 3).

In communications about an impending clinic visit that mothers initiated with their children,

Table 3. Relationship between child's anxiety about impending clinic visit and presence or absence of anxiety in the mother

Maternal anxiety	Number of children with anxiety about visit—		Total children
	Low	High	
Present	8	21	29
Absent	14	7	21
Total	22	28	50

NOTE: $X^2=7.55$; $P<0.01$.

larger numbers of children showed high anxiety when greater, rather than less, detail was conveyed (table 4). When the child initiated the communication, just the opposite result was obtained (table 5).

Discussion

Our study indicated that a positive relationship exists between the frequency of a child's previous fearful reactions during clinic visits and his present anxiety about an impending visit. The study also showed that suppressive mothers tend to have children with high anxiety, although their mothers are often not aware of their fears.

The child whose mother does not permit him to express strong feelings of fear apparently learns to hide these feelings so that, to his mother, he appears to be unafraid. When this child, however, is given an opportunity, he is able to project his feelings about the feared event. Thus, the mothers who perceived their children as being relatively unafraid of an impending clinic visit were the same women who suppressed their children's expressions of fear. Perhaps a mother who suppresses her child's expression of such feelings through crying, for example, does not wish to admit that her child is frightened. Mothers do not seem to help a child by saying "Be brave" or "Big boys don't cry." The mothers who permit their children to cry and show concern seem to alleviate at least some of their children's natural fears about such possible events as undergoing pain and mutilation, being handled by strangers, and being separated from their mothers.

Table 4. Relationship between child's anxiety about impending clinic visit and amount of information about it given him in communication initiated by the mother

Information given by mother	Number of children with anxiety about visit—		Total children
	Low	High	
Going to see doctor	11	0	11
Going to see doctor for treatment of named ailments	6	9	15
Going to see doctor for treatment of named ailments; instruments described	4	19	23
Going somewhere [1]	1	0	1
Total	22	28	50

[1] Mother did not designate destination.
NOTE: $X^2=21.99$; $P<0.01$.

Table 5. Relationship between child's anxiety about impending clinic visit and amount of information about it given him in communication that he has initiated

Information given by mother	Number of children with anxiety about visit—		Total children
	Low	High	
All details of what doctor was going to do	13	4	17
Why doctor was conducting treatment or examination	6	20	26
Child was not to worry	3	4	7
Total	22	28	50

NOTE: $X^2=11.89$; $P<0.01$.

A high correlation was also found between the mother's anxiety and the child's. Possibly the mother transmits her anxiety to the child by her own behavior, the child's anxiety creates similar feelings in the mother, or prior medical experiences have made both the parent and the child anxious. Research on patterns of child rearing confirms that a child's anxiety is directly related to his mother's, and therefore the first of these three possibilities seems the most likely (*11*).

The interaction between the amount of detail provided the child about the clinic visit and whether the mother or the child initiates the communication suggests that mothers do not calm their children by initiating a conversation about the visit and giving them extensive detail in that conversation. When, however, the child has initiated the communication, provision of greater detail to the child is associated with lessened anxiety on his part about the impending visit. The chance exists, of course, that anxious children, through nonverbal signs of anxiety, may induce their mothers to initiate detailed explanation about the visit and that less anxious children may be more willing to initiate communication.

We speculate that communication initiated by the mother about a clinic visit may in fact lower a child's anxiety if the paradigm of desensitization is used (*12*). Parents who initiate such communications with their children seem to tend to begin with the most threatening, rather than with the least threatening aspects of an impending visit.

Low anxiety about a clinic visit on the part of the child is apparently associated with a mother

who accepts her child's expressions of fear about visiting the clinic; who responds to the child's questions about the visit but recognizes that detailed discussions should be avoided until the child himself shows concern or asks questions; who fosters an atmosphere in which the child feels free to ask specific questions, to voice general concern, and to express tension by his behavior; whose own fears about clinic visits are minimal.

Since many parents of pediatric patients have read popular articles stressing how important it is to prepare children for medical, surgical, or dental events, the results of our study have relevance for physicians in clinics and private offices, for nurses, and for others who need to communicate with such parents. Moreover, the results may offer insights to pediatric nurses and to directors of play programs in pediatric hospitals and clinics, who are often called upon to prepare children for various medical examinations and procedures.

The study could be replicated by other valid techniques. Perhaps, also, other interactions between the mothers and children whom we studied could be explored to see if they are consistent with our results. The causes of anxiety about clinic visits could be further determined. The ways physicians or nurses prepare mothers for the next visit might also be analyzed to see if mothers have the answers to the questions their children ask.

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To discover what contributes to, and what reduces, children's anxiety about impending clinic visits, a random sample of 50 mothers and their children was drawn from the pediatric outpatient clinic waiting room of the Center for Health Sciences, University of California at Los Angeles.

The mothers were surveyed by a questionnaire that asked about the child's anxiety on prior clinic visits, the mother's anxiety about visiting her own physician, and the content and the initiator of communications between mother and child about a child's impending visit to a clinic. The children were shown a picture of a child being examined by a physician and asked to select from an inventory of adjectives the ones that best described how the child in the picture felt.

The results suggest that communication between the parent and child about a forthcoming clinic visit helps reduce the child's anxiety if the child has initiated the communication. If, on the other hand, the mother, on her own initiative, gives the child a premature and detailed description of the impending visit, she may only provoke the child's anxiety, especially if she is highly anxious herself.