

Development of the Children's Separation Rating Scale : Its Clinical and Research Use

아동분리반응척도의 개발 : 임상 및 연구응용

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요 약 : 본 논문은 아동분리반응척도 개발에 관한 것으로 그 신뢰도와 타당성, 그리고 정신과 입원 아동들에 대한 임상 연구 이용도를 검증하였다. 아동분리반응척도는 신뢰성과 타당성있는 연구 기구임이 나타났고 아동의 분리반응을 그들의 정신병리와 구별지어주는 데 유용한 것으로 나타났다. 이것은 또한 감별진단하는데 임상가들에게 도움이 될 것으로 보이며 아동의 정신과 입원시 일어날수 있는 분리반응과 그 부작용에 대한 이해의 필요성을 시사하였다. 이 기초연구는 입원치료 프로그램은 입원 아동들의 발달적 요구와 능력 그리고 정신병리 시 나타나는 특정한 결함에 대해 반드시 관심을 보여야 한다는 개념을 지지하였다.

Among various forms of separation, hospitalization is one of the most common causes of separation in children (Rutter 1979). Hospitalization provokes complex psychological processes, often evoking an active fantasy in the child of being abandoned by parents and the preoccupation of parents in the well-being of their child. Despite well-planned preparations for admission, clinicians frequently are confronted with varying degrees of separation reactions in the hospitalized children. Many studies (Chapman, et al 1956 ; Gofman, et al 1957 ; Langford 1961 ; Prugh, et al 1953 ; and Robertson 1971 ; Saylor, et al 19 87) have described behavioral or psychological manifestations of separation reaction in acutely ill children who are admitted to a medical unit (e.g. anxiety, tension, regression, hypochondriacal reaction, denial, rebelliousness, anger, aggressive

acting out and depression, etc.). Psychiatric hospitalization of children has various implications for children and their families, quite different from medical hospitalization. The manifestation of separation reaction may be very difficult to differentiate in psychiatrically hospitalized children because it may be seen as a part of the behaviors which originally brought them to the hospital.

It has been observed in clinical settings that children with school refusal who also refuse hospitalization present with an intense separation distress upon hospitalization. Contrarily, it has also been observed that some other children with similar chronological age and developmental level manifest a minimal separation distress under the same situation. Those children with little separation distress may present with marked ac-

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ting out behavior of conduct disorders whereas, other children with oppositional behavioral disorders may present with severe separation reaction at hospitalization. It is conceivable that a severe separation distress may imply a certain underlying psychopathology and it is also possible that a group of children who do not display any signs of separation reaction may present another type of disorder. Although separation reaction of early childhood has been widely studied in nurseries, general pediatric hospitals, and in experimental settings (Bowlby 1973 ; Rutter 1979), no one, to our knowledge, has systemically studied separation reaction of psychiatrically hospitalized children. We developed a scale, the Children's Separation Rating Scale (CSRS) to measure the separation reaction of the child precipitated by hospitalization. This paper discusses the development of the CSRS, its psychometric properties, and clinical/research utility of the CSRS.

The Development of the CSRS

The description reported in the literature on the separation reaction observed in hospitalized children covers practically all major symptoms and signs observed in daily child psychiatric practice. It is plausible to assume that a certain underlying psychopathology is augmented or precipitated by the separation event. One wonders where the line should be drawn and to what extent the separation reaction reflects the child's original psychopathology. It is not only a qualitative, but a quantitative question.

Initially, we considered about 20 possible items that have been reported with separation "anxiety" or separation behavior. It is interesting to note, that some clinicians traditionally viewed separation reaction as an anxiety reaction and the word "anxiety" comes quite naturally after the word "separation". The range of items was so wide that we were not certain whether it would

specifically measure the separation reaction or rather overall psychopathology. The authors began to narrow down the items to the clinical observations most pertinent and specific to children's separation behaviors seen in an inpatient setting. The final version of the CSRS consisted of five items with a 4-point rating scale (see Appendix).

To enhance the reliability of the scale, we described specific examples for the grading of each item (none, mild, moderate, severe). These are just examples, not exclusive descriptions. For instance, on item 1, a child may cry or break a window out of anger while refusing to separate from the parents and then the child's separation behavior would be rated as "severe". The rating was carried out by obtaining information from several sources.

For preadmission assessment, we observed the manner in which the child separated from the parent for an individual interview for item 1, and questioned the child directly for the rest of the information. The same procedure was used for items 2 through 5, except that information was also sought from the parents during the parent interview. For the assessment of separation reaction during hospitalization, information was obtained from the charts, discussions with the nurses, the unit teachers and interviews with the child. The rating was the best clinical judgment by the child psychiatrist (W.K.) considering all sources of information. The time period for the rating was one week except for the rating for the first 24 hours of hospitalization. The degree of separation reaction was determined by the sum of each item score (possible scores 0-15).

Psychometric Properties

1. Reliability

1) Inter-Rater Reliability :

Two child psychiatrists (W.K., S.H.) indepen-

dently rated 15 inpatients. They were five girls and ten boys, ages ranged from 4 to 14 years. The children's diagnoses varied widely as did the length of hospital stay at the time of the rating (1-45 days). Rank ordering of CSRS total scores by each rater yielded a high rate of inter-rater agreement (correlation coefficient 0.92). The high inter-rater reliability may be attributable to the fact that both raters were homogeneous in terms of professional affiliation, training,

background and also were involved in the development of the CSRS. These attributes are not likely to be found in the natural clinical setting, but it allowed us to examine the extent to which the variables in the ratings could be attributed to the instrument itself.

2) Test-Retest Reliability :

After finalizing the CSRS through interrater reliability testing, 22 children were followed for the assessment of their separation reaction from

Appendix. Children's separation rating scale

I. Difficulty in separating from the family :

Severe ; refuses to separate, hangs on to the parent, cries.

Moderate ; child is reluctant to separate, preoccupied with thoughts of the parent and tearful for a while.

Mild ; looks a bit sad on separation, misses family, but easily returns to usual self.

0 ; (not present) ; equally enjoys the family and the hospital.

II. Worry about the family :

Severe ; constant preoccupation and worry about the family, asking staff to call them, crying upon mentioning parents.

Moderate ; frequent talk and question about the family's well-being.

Mild ; child is concerned about the family when asked, but does not frequently his worry.

0 ; not present.

III. Clingingness and intolerance to be left alone :

Severe ; constantly follows staff and unable to remain alone.

Moderate ; follows the staff rather than interacting with peers.

Mild ; seeks reassurance from time-to-time.

0 ; not present.

IV. Fantasy of being abandoned :

Severe ; says he'd never be allowed to return to the family.

Moderate ; frequently seeks reassurance about returning to the family.

Mild ; slightly doubtful about returning to the family.

0 ; not present.

V. Withdrawal :

Severe ; shows profound loss of interest in surroundings, looking sad(or irritable and agitated) and refusing to interact.

Moderate ; needs support and encouragement to interact.

Mild ; looks withdrawn at times, but can be easily drawn into interaction when directed.

0 ; not present.

Table 1. Correlation coefficients among CSRS scores

	P	2D	1W	2W	3W	D
P	—	0.67*	0.48*	0.58*	0.36	0.33
2D	—	—	0.82*	0.64*	0.78*	0.40
1W	—	—	—	0.55*	0.91*	0.64*
2W	—	—	—	—	0.45*	0.34
3W	—	—	—	—	—	0.65*

(*p<0.05)

Note : P=Preadmission, 2D=The first 24 hours of hospitalization, 1W=The first week of hospitalization, 2W=The second week of hospitalization, 3W=The third week of hospitalization, D=Ond day prior to discharge.

Table 2. Correlation coefficients between CSRS and Q-SORT

Csrs	Unit director	Head nurse
P	0.45*	0.57*
2D	0.60*	0.58*
1W	0.50*	0.39
2W	0.29	0.29
3W	0.57*	0.31
D	0.17	0.22

(*p<0.05)

Note : P=Preadmission, 2D=The first 24 hours of hospitalization, 1W=The first week of hospitalization, 2W=The second week of hospitalization, 3W=The third week of hospitalization, D=Ond day prior to discharge.

the preadmission interview to discharge. The CSRS was administered at the preadmission evaluation, the second day, the eighth day, the fourteenth day, the twenty-first day of hospitalization and one day prior to discharge. Correlation coefficients among different CSRS scores at each point are illustrated in Table 1. The CSRS scores in adjacent time points were all significantly related($p<0.05$). The stability lasted two weeks from each point of assessment. The degree of stability in the successive time periods also reflected a time point when the separation reaction persisted and when the improvement took place during hospitalization.

2. Validity

1) Criterion-Related Validity :

The unit director (S.H.) and the head nurse independently rated the overall separation response of all 22 children according to a "Q-sort" model (Block, 1961) after all 22 children were discharged. Both raters were blind to the actual CSRS scores of individual patients. They were asked to rate overall separation reaction, according to their own conceptualization of separation reaction not necessarily according to the CSRS criteria. The Q-sort model forced them to rank order each child according to their perceived severity of separation reaction. The preadmission and the first 24-hour CSRS scores were significantly correlated with Q-sort rank ordering by both the unit director and the head nurse (Table 2).

2) Discriminant Validity :

The CSRS' ability to discriminate the severity of separation reaction was examined according to the change in the severity of separation reaction. Table 3 demonstrates that the separation reaction was more severe in the beginning of hospitalization than the later part of hospitalization. The significant difference between the first 24 hour CSRS scores and the second, the third week and the discharge CSRS scores indicate that the instrument is sensitive to the differen-

Table 3. CSRS scores by the time of hospitalization

	Mean	S.D.	Smallest	Largest
Preadmission	3.14	3.62	0	15
First 24 hours	3.91	2.96	0	9
1st week	3.36	2.75	0	10
2nd week	2.64*	1.92	0	8
3rd week	3.05*	2.21	0	9
Discharge	2.00*	1.38	0	4

*Indicates a significant difference between the first 24 hours observation and this observation ($p < 0.05$).

Noth: Pairwise t-tests were calculated between the first 24 hours observation (the largest) and all other observations.

ces in the degree of separation reaction during the different time periods of hospitalization.

3) Concurrent Validity:

The Children's Psychiatric Rating Scale (CPRS: Guy, 1971) was also administered concurrently with the CSRS. We hypothesized that the more severe the psychopathology, the greater the degree of separation difficulty children would demonstrate. Table 4 shows the degree of correlation between the CPRS and the CSRS at each time point of assessment. As there was no known assessment instrument of separation reaction, the CPRS was used as one parameter of developmental psychopathology which would affect separa-

tion difficulty. This preliminary and indirect examination of concurrent validity was used to strengthen the validity obtained from two other approaches.

Clinical Use of the CSRS

Subjects and Procedures:

As described earlier, the sample for this study consisted of 22 children who were hospitalized on the Children's Psychiatric Inpatient Unit of Johns Hopkins Hospital. The Children's Psychiatric Inpatient Unit is a closed inpatient program. The unit is a part of a general pediatric hospital that receives referrals from various sources for a wide range of clinical problems. It was the only acute hospital program for psychiatrically disturbed children under age 12 in a greater Baltimore area at the time of this study. They were 17 Caucasian and 5 Black children, 19 boys and 3 girls. Their ages ranged from 6 to 14 years and the mean length of hospital stay was 41 days. These children represented consecutive admissions to the Children's Psychiatric Inpatient Unit, excluding 4 emergency admissions that precluded preadmission evaluation.

All the children were seen by two child psychiatrists before admission and at the time of admission. In addition to the conventional clinical

Table 4. Correlation coefficients between CSRS and CPRS

CPRS	CSRS					
	Pre-admission (P)	First 24-hours (2D)	first week(1w)	Second week(2w)	Third week(3w)	Discharge (D)
P	0.73*	0.57*	0.61*	0.43*	0.46*	0.33
2D	0.59*	0.69*	0.69*	0.48*	0.65*	0.35
1W	0.32	0.49*	0.65*	0.25	0.66*	0.38
2W	0.39	0.61*	0.51*	0.70*	0.57*	0.29
3W	0.38	0.54*	0.65*	0.41	0.67*	0.43*
D	0.18	0.18	0.33	0.17	0.35	0.33

(* $P < 0.05$)

interview, structured interviews were done with the CPRS and Children's Depression Rating Scale. The parent completed the Child Behavior Checklist-Parent Report Form prior to admission and the registered nurse and the unit teacher also completed the Child Behavior Checklist-Parent's Report Form and Teacher's Report Form respectively during hospitalization. All subjects also received psychometric and educational assessment batteries. The psychometric battery consisted of Wechsler Intelligence Scale for Children-Revised, Bender Visual-Motor Gestalt Test, Peabody Individual Achievement Test, Human Figure Drawings, Thematic Apperception Test, and Rorschach. Educational assessment was performed by the Key Math Diagnostic Arithmetic Test and the Woodcock Reading Mastery Test. Additional diagnostic procedures such as speech/language evaluation, pediatric neurology consultation, or other medical consultations were carried out when clinically indicated. Final diagnosis was made according to the DSM-III criteria. The diagnostic decision was made by the consensus of the two child psychiatrists. When their views differed, the two child psychiatrists reviewed and discussed the clinical data in order to reach a consensus.

Data Analysis: Having examined the psychometric properties of the CSRS, we proceeded to explore the clinical usefulness of the CSRS. We divided the degree of separation reaction into two groups: no/mild reaction and moderate/severe reaction. The youngsters who had the CSRS score 4 or above were classified as evidencing a moderate/severe reaction except during the first 24 hours of hospitalization. The cut-off score for the moderate/severe separation reaction during the first 24 hours of hospitalization was raised to above 4 in order to avoid a dilution effect on the classification process, i.e, the effect that might be created by subtle differences in admission procedures rather than the differences in the

child's ability to handle separation from the family. These two groups were compared in relation to their developmental and diagnostic variables. Statistical tests of Pearson Correlation Test, t-Test and Chi-Square Test were used, where appropriate.

1. Developmental Variables

Age: Table 5 shows that age was not a discriminating factor during the first part of hospitalization. There was a trend, though statistically insignificant, that during the second and the third week of hospitalization, the mean age for the moderate/severe separation reaction group was lower than the no/mild separation reaction group.

Table 5. Comparison of moderate/severe separation reaction and no/mild separation reaction on age & IQ variables

<u>Preadmission</u>	<u>Mean age</u>	<u>Mean IQ</u>
csrs \geq 4 (N=9)	10.4	84.8
csrs $<$ 4 (N=13)	10.2	85.6
<u>First 24-hours</u>		
csrs $>$ 4 (N=9)	10.9	89.0
csrs \leq 4 (N=13)	9.9	82.7
<u>First week</u>		
csrs \geq 4 (N=9)	10.2	84.4
csrs $<$ 4 (N=13)	10.4	85.8
<u>2nd week</u>		
csrs \geq 4 (N=6)	9.8	80.0
csrs $<$ 4 (N=16)	10.5	87.3
<u>3rd week</u>		
csrs \geq 4 (N=8)	9.8	84.6
csrs $<$ 4 (N=14)	10.6	85.6
<u>Discharge</u>		
csrs \geq 4 (N=4)	8.0*	77.5
csrs $>$ 4 (N=18)	10.8	87.0

(*p $<$ 0.05 by t-Test)

At the time of discharge the mean age for the moderate/moderate separation reaction group was significantly lower than the no/mild separation reaction group.

Intelligence: The Full Scale Intelligence Scores did not differ between the two groups although there was a statistically insignificant trend(t-Test) at the time of discharge. The mean full scale IQ scores for the moderate/severe separation reaction group was lower than the no/mild separation group(mean full scale IQ difference; 9.5). However, on Pearson Correlation Test, both Verbal and Full Scale IQ scores showed significant negative correlations with the discharge CSRS scores(correlation coefficient; 0.51, 0.50 respectively) while performance IQ scores were not significantly correlated(0.41). There was in indication that the children with low intelligence scores, especially low verbal IQ scores, which represent developmentally immature groups regardless of their chronological age, tended to show more separation difficulties than the average or high intelligent patients.

2. Diagnostic Variables.

In view of the small sample size employed in this study and the well known controversies on certain diagnostic entities, we grouped some of the individual's diagnosis into the broader psychiatric diagnostic categories. The anxiety/depression group(AND) included the diagnosis of Generalized Anxiety Disorder, Separation Anxiety Disorder, Major Depressive Disorder and Dysthmic Disorder. The Psychotic Disorder group included Pervasive Developmental Disorder and Schizophrenic Disorder. Many of the youngsters showed characterological deficits but they were not given any specific personality disorder diagnosis. When the behaviors sufficiently demonstrated ingrained characterological deviations, many fell into the category of Oppositional Disorder. This diagnosis included the youngsters who showed borderline, narcissistic, passive-aggressive and histrionic personality traits.

A learning disability diagnosis was made, on the basis of the results of both educational and

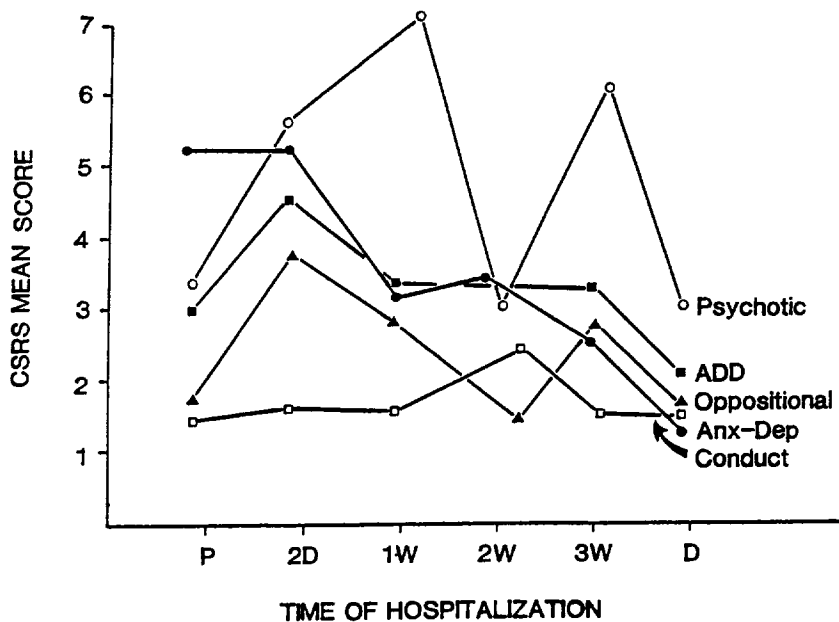


Fig. 1. Mean scores of children's separation rating scale(CSRS) by major psychiatric diagnostic category.

intelligence test results, when there was a significant difference between the child's academic potential and the actual performance, not solely attributable to the child's emotional handicap. Parent-Child Problem, DSM III V Code diagnosis, was also identified although one may see serious parent/child relationship problems in child psychiatric patients as they come from quite dysfunctional families in most cases. However, the diagnosis was made only when there were clear signs of child neglect, abuse, or an intense degree of relationship conflicts to a behaviorally observable extent. When the diagnoses were grouped into these broader diagnostic categories, there was a 100% agreement rate between two raters.

Fig. 1 shows the chronological changes of the mean CSRS scores from preadmission to discharge by the diagnostic group. It is very interesting to note that the Anxiety/Depression group started with very high scores but obtained the lowest scores at the end of hospitalization. The children with Psychotic Disorders demonstrated quite severe and erratic separation reaction. The children with Conduct Disorders showed little variation in their manifestation of separation reaction. When the mean CSRS scores of the children with each specific diagnosis was compared with the rest of children who did not have such specific diagnosis (Table 6), the children with Conduct Disorders showed significantly less separation reaction during the first 24 hours of hospitalization. The children with Psychotic Disorders showed significantly more separation reaction than the rest of the group during the first week and the third week of hospitalization.

When the comparison within the same diagnostic category was made between children who showed no/mild separation reaction and moderate/severe separation reaction using Chi-Square Test (Table 7), the children with Conduct Disor-

Table 6. Mean scores of children's separation rating scale (CSRS) by diagnostic group

CSRS	ANX-DEP		ADD		Oppositional		Conduct		Psychotic		Parent-child problem (V code)		Developmental (L.D., etc)		MR. (IQ<80)	
	yes	no	yes	no	yes	no	yes	no	yes	no	yes	no	yes	no	yes	no
Preadmission	5.2 ±5.6	2.4 ±2.4	3.0 ±2.8	3.2 ±4.0	1.7 ±2.1	3.8 ±4.0	1.4 ±0.9	3.7 ±1.0	3.3 ±3.1	3.1 ±3.8	1.5 ±2.0	4.0 ±4.1	3.4 ±4.2	2.6 ±2.5	4.6 ±5.1	2.3 ±2.2
First 24 hours	5.2 ±3.4	3.4 ±2.8	4.4 ±3.1	3.7 ±3.0	3.7 ±2.2	4.0 ±3.3	1.6 ±1.8	4.6* ±2.9	5.7 ±4.0	3.6 ±2.8	2.4 ±1.8	4.8 ±3.2	4.0 ±2.8	3.6 ±3.4	4.3 ±3.0	3.7 ±3.0
First week	3.0 ±2.3	3.5 ±2.9	3.3 ±2.0	3.4 ±3.1	2.9 ±2.2	3.6 ±3.0	1.6 ±1.8	3.9 ±2.8	7.0 ±4.4	2.8** ±2.0	2.6 ±1.6	3.8 ±3.2	4.0 ±3.0	2.3 ±2.1	4.4 ±2.8	2.8 ±2.6
Second week	3.3 ±2.6	2.4 ±1.6	3.3 ±3.0	2.3 ±1.1	1.6 ±1.4	3.1 ±2.0	2.4 ±1.7	2.7 ±2.0	3.0 ±1.0	2.6 ±2.0	2.3 ±1.6	2.9 ±2.1	2.4 ±1.6	3.1 ±2.4	2.9 ±1.5	2.5 ±2.2
Third week	2.5 ±1.5	3.3 ±2.4	3.4 ±1.6	2.9 ±2.5	2.9 ±1.1	3.1 ±2.6	1.6 ±1.7	3.5 ±2.2	6.0 ±3.6	2.6** ±1.6	2.4 ±1.7	3.4 ±2.4	3.5 ±2.4	2.3 ±1.7	3.5 ±2.2	2.8 ±2.3
Discharge	1.3 ±1.0	2.2 ±1.4	2.1 ±1.6	1.9 ±1.3	1.7 ±1.4	2.1 ±1.4	1.6 ±1.7	1.6 ±1.3	3.0 ±1.0	1.8 ±1.4	2.4 ±1.7	1.8 ±1.2	2.4 ±1.3	1.4 ±1.3	2.6 ±1.3	1.6 ±1.3

(___ t-test; *p<0.05; **p<0.01)

ders stood out as having significantly more no/mild separation reaction. No children with Conduct Disorders showed moderate/severe separation reaction at the time of preadmission interview or during the first 24 hours of hospitalization. Although it was not statistically significant, the trend remained throughout hospitalization. The children with Parent/Child Problems also showed less separation reaction during the first 24 hours of hospitalization. It is interesting to note that the trend reversed toward the end of

hospitalization. The children with Oppositional Disorders showed less separation difficulties during the second week of hospitalization. During the same time period, children with Attention Deficit Disorders showed a significantly higher proportion of moderate/severe separation reaction.

Discussion

The CSRS is a brief rating scale that can be

Table 7. Comparison of moderate/severe separation reaction and no/mild separation reaction by the ratio of children in each diagnostic group

Number of children Diagnosis	Preadmission				First 24 hours				1 week			
	CSRS \geq 4 (N=9)	CSRS $<$ 4 (N=13)	X ²	P	CSRS $>$ 4 (N=9)	CSRS \leq 4 (N=13)	X ²	P	CSRS \geq 4 (N=9)	CSRS $<$ 4 (N=13)	X ²	P
Anx-dep	4	2		N.S.	3	3		N.S.	4	2		N.S.
ADD	3	4		N.S.	3	4		N.S.	3	4		N.S.
Oppositional Conduct	2	5		N.S.	3	4		N.S.	3	4		N.S.
Psychotic	0	5		N.S.	3	4		N.S.	3	4		N.S.
Parent-child problem(V code)	2	1	4.50	0.034	0	5	4.50	0.034	1	4		N.S.
Developmental (L.D.)	2	6		N.S.	1	7	4.20	0.041	2	6		N.S.
M.R.(IQ $<$ 80)	6	8		N.S.	6	8		N.S.	6	8		N.S.
	4	4		N.S.	3	5		N.S.	4	4		N.S.

(N.S. ; not significant)

2nd week				3rd week				Discharge			
CSRS \geq 4 (N=6)	CSRS $<$ 4 (N=16)	X ²	P	CSRS \geq 4 (N=8)	CSRS $<$ 4 (N=14)	X ²	P	CSRS \geq 4 (N=4)	CSRS $<$ 4 (N=18)	X ²	P
3	3		N.S.	2	4		N.S.	0	6		N.S.
4	3	4.62	0.032	4	3		N.S.	2	5		N.S.
0	7	3.85	0.049	1	4		N.S.	1	6		N.S.
1	4		N.S.	1	4		N.S.	1	4		N.S.
1	2		N.S.	2	1		N.S.	1	4		N.S.
2	6		N.S.	3	5		N.S.	3	5	3.15	0.076
4	10		N.S.	5	9		N.S.	3	11		N.S.
3	5		N.S.	3	5		N.S.	2	6		N.S.

completed within a few minutes as a part of routine clinical evaluation and during the initial and follow-up periods of hospitalization. In light of the dearth of child psychiatric inpatient assessment instruments (Riddle 1989) and child psychiatric inpatient research in general (Woolston 1989), the CSRS may serve as a convenient and useful information gathering instrument for clinical and research purposes in inpatient settings. This study provides initial data on the reliability and validity of the CSRS. The CSRS has a predictable value in that one can anticipate the degree of separation reaction upon hospitalization from the preadmission assessment data. Measurements of separation reaction at the different time points also demonstrated the CSRS' sensitivity to changes.

Separation reaction is the combined effect of separation and underlying psychopathology. Young children with psychiatric illness are quite vulnerable and sensitive to separation from the familial setting, often exhibiting physical resistance. As expected, the separation reaction was greater during the first day than any other period. The CSRS also showed some stability in separation reaction in spite of various interventions to comfort them and help them to adjust to a new environment. It takes two weeks to settle in a hospital setting, which may reflect the time taken for the children to get used to the separation and/or the time for the treatment program to begin to affect the disturbed children. These findings point to the need to seriously consider the appropriate preparation of children for psychiatric hospitalization. In this day and age of ever decreasing psychiatric inpatient days, therapeutic preparations for hospitalization should include not only mere explanation or tour of an inpatient unit but active therapeutic work on the child's anxious attachment to the parent.

Children's medical hospitalization have been studied with respect to its effects (the effects of

separation rather than the psychological effects of medical illnesses) and different attempts have been made to remedy the ill effects (Gofman 1957; Peterson and Ridley-Johnson 1980; Petrillo and Sanger 1980). Varni (1983) summarized in his review on children's medical hospitalization that an increasing number of hospitals nationally have developed pediatric preparation programs, employing a wide variety of techniques such as printed materials (coloring books, written instructions, information booklets), audio-visual materials (slides, film strips, video tapes), models and miniatures (dolls, puppets, medical supplies), group discussions, and hospital tours. There were reports of not uncommon pitfalls of inpatient programs, especially in a long term unit (Christ and Wagner 1966).

Since the 1970's the acute short term inpatient child program has grown rapidly by the speed that worries many professionals and insurance carriers (Dalton and Forman 1987). The nature of the child inpatient psychiatric program has been changing from a residential treatment model to an acute diagnostic and therapeutic trial program (Jemerin and Phillips 1988). However, there has been little discussion on how to prepare children and deal with the separation caused by psychiatric hospitalization. The separation aspect of children's psychiatric hospitalization has been a neglected research area.

It seems plausible to speculate that children with psychiatric conditions do experience significant distresses, perhaps even more than children with medical conditions, by separation from the family. Roth and Roth (1984) suggested that before psychiatric hospitalization (and during the period of initial adjustment to hospitalization), children between the ages of six and twelve years did not have a very specific concept of their problems or the roles of therapeutic staff. Instead, the children's understanding was often stereotyped and general and related to their pre-

conceived understanding of the roles of doctors, nurses and others in the medical field in contrast to the psychiatric or psychological field. With this kind of limited understanding, children may view psychiatric hospitalization as punishment or the end result of failures in all areas—individual child's failure to cope with oneself and environmental stresses, family's failure to provide care, outpatient program's failure to keep the child within the family, and school's failure, etc. The pervasive sense of failure permeates before and during the initial phase of hospitalization, which is often manifested in the abandonment fantasy on the parts of both the parents and the child. Clinicians often have to treat this separation crisis for the first couple of weeks rather than attending to the overall clinical problems, although this may be still an important and useful avenue to reach the ultimate treatment goals. Roth and Roth(1984) also reported that as psychiatric hospitalization progressed, children's understanding of their problems and of the roles of the staff increased. Children's inpatient psychiatric programs should then devise ways in which some of the work on children's separation anxiety and understanding of hospitalization can take place prior to hospitalization.

Clinicians have been aware that separation reaction can be of great diagnostic value(Rose and Sonis 1959) and should be an important target of therapeutic intervention(Gair and Salomon 1962), though it may complicate initial diagnostic procedures. This study demonstrates quite distinctive course of separation reaction for different diagnostic categories. As hypothesized, separation reaction was greater in the psychotic and anxiety/depression group than any other diagnostic group, and the least in the conduct disorder group. This confirms a common belief on two rather contrasting disorders: anxiety/depression versus conduct disorder in terms of internalizing /externalizing dimension and object attachment.

In light of diagnostic difficulties and many overlapping conditions in children, separation reaction appears to provide additional information useful for differential diagnosis of hospitalized children. The parent-child relationship problem is almost always present in child psychiatric patients and to a more severe degree in severely disturbed inpatients. When the parent-child problem is defined by abuse and neglect, it is of note that these children showed little separation reaction initially but a greater degree of separation reaction at the time of discharge. It may imply that some degree of attachment to hospital staff and a nurturing hospital environment has been developed in these children and these children conversely exhibit the fear of returning to the abusive parents and disturbing environment. Though the number of psychotic children was small, psychotic children exhibited quite erratic separation reaction and the most severe reaction throughout hospitalization. This may reflect their tenuous reality testing and the frightening fantasy about separation and abandonment. It is of interest that age and intellectual maturity did not make a significant difference in the initial separation reaction but a significant difference in the discharge separation reaction. Perhaps this indicates that any ill effects caused by psychiatric hospitalization may be greater in the younger, developmentally immature children than the older, mature children. This tentative finding reinforces Berlin's suggestion(1978) that inpatient treatment programs should address the developmental needs and abilities of the various age groups and the particular developmental deficits reflected in their psychopathology.

The main thrust of this paper was to introduce a new child psychiatric inpatient rating instrument, the CSRS, and to demonstrate its reliability and validity. This study also examined its clinical and research utility by relating the CSRS with developmental and diagnostic variables. The

findings of this pilot study, especially in terms of its clinical utility should be interpreted with a great deal of caution since its generalizability is limited due to the use of a small sample in this pilot study. This study was also carried out before the era of severe restriction on the length of hospital stay by private as well as public insurance carriers. Therefore, separation reaction on a short term unit may look quite different now, when followed throughout hospitalization. On the other hand, the findings support the notion that young children should be treated at sufficient length to address the separation reaction caused by psychiatric hospitalization. If one takes an extreme position, short term hospitalization of children for a week or two, as the DRG were construed (Christ, et al 1989), may be viewed as traumatic unless there is continuity of treatment before, during and after hospitalization.

It is hoped that this study would stimulate research interest in investigating appropriate therapeutic preparation of children for psychiatric hospitalization, and intervention strategies to address separation reaction during and after hospitalization. In view of the report of a more severe kind of psychological effect of children's emergency medical hospitalization (Roskies, et al 1975), emergency psychiatric hospitalization of children and adolescents, which is now becoming a more frequent event, should be carefully studied with respect to separation reaction. Adolescent psychiatric patients also show some degree of separation reaction to hospitalization, especially to emergency hospitalization, though less pronounced than children in general. Different ethnic and cultural backgrounds may also play a role in children's and adolescents' separation reaction. Research on cross cultural aspects of children's psychiatric hospitalization, separation reaction of psychiatrically hospitalized adolescents, and replication of this study in larger and different inpatient populations are encouraged.

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ABSTRACT

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DEVELOPMENT OF THE CHILDREN'S SEPARATION RATING SCALE ITS CLINICAL AND RESEARCH USE

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This paper reports on the development of the Children's Separation Rating Scale(CSRS), its initial reliability and validity, and clinical/research utility with psychiatrically hospitalized children. The CSRS appears to be a reliable and valid instrument, and useful in distinguishing children's separation reaction from their general psychopathology. It may be also useful in aiding clinicians in differential diagnosis. This study points to the need for further understanding of children's psychiatric hospitalization in relation to their separation reaction and its possible untoward effects. Findings of this pilot study support the notion that inpatient treatment programs should address the developmental needs and abilities of the various age groups and the particular deficits reflected in their psychopathology.