

**GLOOMY MOOD VERSUS PLEASANT MOOD IN PUBERTY—
DEPRESSIVE STATE IN PUBERTY MEASURED WITH CDS
(continued)—**

(depressive state/ puberty/ CDS)

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In addition to our preceding study on Depression in Puberty, which was printed in this journal, Vol. 9, 1985, a further analysis of similar CDS data is reported in this paper, in which the emphasis has been put upon the study of the correlation between two kinds of mood - gloom and pleasure, which CDS analyses in its unique way. CDS results in two groups, one consisting of 60 children aged from 12 to 14 who were attending school normally, the other consisting of 14 children of similar age range who had been hospitalized in a psychiatric ward mostly because of their refusing to attend school, were compared. Consequently, the structure of mood at the depressive state of children in puberty was revealed more clearly. The results seemed to support the suggestion that the true form of the depression can be defined as 'inability to experience pleasure.'

We studied in a previous paper the depressive state in puberty measured with CDS - Children's Depression Scale - developed by Lang and Tissher, 1978, which was applied to two groups of children aged from 12 to 14, one of which consisted of 60 children who were attending school ordinarily, and the other, 14 children who had been hospitalized in a psychiatric ward mostly because of their refusing to attend school (5). Further analysis of the CDS data is reported in this paper. CDS data used here is almost the same as the original one. Only one female subject was added to the psychiatric group.

Once more we will briefly describe the two groups. We looked upon the group of children who were attending school ordinarily as being in a normal state and mood so that this group was regarded as the control group in our CDS study. On the other hand, a group of hospitalized children were regarded as suffering from somewhat depressive state which had driven them to refuse to attend school; they were regarded as the experimental group in the study. The structure of the two groups of subjects is indicated on table IX.

Table IX. STRUCTURE OF THE SAMPLES

Group	Number	Range of Age	Mean of Age
Sample in Hospital (Experimental Group)	14 (7)	12:11 - 14:11	13:11
Sample in School (Control Group)	60 (30)	12:00 - 14:11	13:02

The number of girls are parenthesized

In our calculations, the CDS results for the experimental group to which only one girl was added were almost the same as the results of the original one with slight changes in mean scores on the same CDS scales as indicated on table X.

Table X. MEAN SCORES OF CDS SCALES

Scale	Sample in School N=60(30)		Sample in Hospital N=14(7)		diff.	t-value	p.
	mean	SD	mean	SD			
Affective REsponse	15.96	5.81	20.64	6.77	-4.68	2.599	*
Social Problems	18.05	6.08	21.50	8.27	-3.28	1.744	
Self-esteem	21.48	6.11	24.57	7.37	-3.09	1.639	
Sickness	14.55	5.25	18.86	5.07	-4.32	3.250	**
Guilt	20.45	4.33	23.29	7.08	-2.84	1.935	
Total D-items	114.20	25.77	134.57	34.48	-20.37	2.486	*
Pleasure & Enjoyment	28.33	5.08	22.43	6.68	5.90	3.591	**
Total P-items	59.85	8.11	51.50	9.53	8.35	3.374	**

Compared with the control group, the experimental group produced higher mean scores on scales of gloomy mood, and generally lower mean scores on scales of pleasant mood. The results implies that hospitalized children are more gloomy or less happy than those who are attending school normally.

In order to make the contrast in these two states of mood, gloom and pleasure, more vivid, we looked at the correlation coefficients between each of the CDS scales within both groups.

Table XI. CORRELATIONS BETWEEN CDS SCALE SCORES - SCHOOL SAMPLE

	Affective	Social	Self-	Sick	Guilt	Total-D	Pleasure	Total-P
Affective Response	1.000	.747	.602	.588	.485	.827	-.375	-.369
Social Problems		1.000	.794	.539	.590	.512	-.332	-.572
Self-esteem			1.000	.584	.682	.840	-.027	-.341
Sickness				1.000	.291	.741	-.420	-.330
Guilt					1.000	.722	-.194	-.147
Total D-items						1.000	-.445	-.358
Pleasure & Enjoyment							1.000	.916
Total P-items								1.000

Table XII. CORRELATIONS BETWEEN CDS SCALE SCORES - HOSPITAL SAMPLE

	Affective	Social	Self-	Sick	Guilt	Total-D	Pleasure	Total-p
Affective Response	1.000	.805	.857	.501	.526	.879	-.398	-.481
Social Problems		1.000	.828	.742	.534	.934	-.575	-.648
Self-esteem			1.000	.573	.442	.918	-.645	-.627
Sickness				1.000	.205	.738	-.526	-.549
Guilt					1.000	.659	-.049	-.201
Total D-items						1.000	-.659	-.580
Pleasure & Enjoyment							1.000	.928
Total P-items								1.000

As indicated on table XI and XII, conversive correlations were found to be similar when the scales within both groups were contrasted. However, statistically significant coefficients were found only within the experimental group. The results imply that the phrase "The more gloom, the less the feeling of pleasure." may be valid only for hospitalized children.

Finally, in order to make the difference in tendency between the two groups more clear, we tried to classify the subject children into the following nine types in terms of means and SD on scales of Total D-items and Total P-items in both groups respectively. The results are indicated on table XIII.

Table XIII. DISTRIBUTION OF CDS SCORES FALL IN FRAMEWORKS SET BY P/D AXES

Scale	Sample	Rank							
		$<(m - 1SD)$		$ m + 1SD $		$>(m + 1SD)$		Total	
Total-P/ Total-D		f(%)	%	f(%)	%	f(%)	%	f(%)	%
$>(m + 1SD)$	Hospital	-	-	1(0)	7.14	-	-	1(0)	7.14
	School	4(2)	6.67	3(3)	5.00	-	-	7(4)	11.67
$ m + 1SD $	Hospital	2(1)	14.29	3(3)	21.43	-	-	5(4)	35.71
	School	5(2)	8.33	31(17)	51.67*	5(2)	8.33	41(21)	68.33
$<(m - 1SD)$	Hospital	-	-	3(2)	21.43	5(1)	35.11**	8(3)	57.14
	School	1(0)	1.67	8(3)	13.33	3(2)	5.00	12(5)	20.00
Total	Hospital	2(1)	14.29	7(5)	49.90	5(1)	35.11	14(7)	100.00
	School	10(4)	15.00	42(23)	70.00	8(4)	13.33	60(30)	100.00

Accordingly, in the control group, children who fell into the framework of $D, P = |m \pm 1SD|$ got the status of the majority group. On the contrary, in the experimental group, the status of the majority was replaced by a group of children who fell into the framework of $D > (m + 1SD)$, $P < (m - 1SD)$. Moreover, as indicated in the total score columns on the table of the experimental group, this replacement drama was performed by the constant shifts of children on the line of the pleasant scales. The result implies that the children might have fewer feelings of pleasure rather than that they are more gloomy in their depressive state in general, which seemed to support the presumption by some precursors like Klein, D. F., 1974; the depression might be caused by the patient's 'inability to experience pleasure' rather than their accelerated 'ability to experience sadness.'

DISCUSSION

Our initial intention to apply CDS in our study of child depression was motivated by our noticing the unique structure of CDS which consists of two kinds of question items, gloom and pleasure: this was rare among current depression scales which lacked question items on pleasant moods. As our study proceeded, however, our main concern turned to investigating the structure of mood at the depressive state in puberty. Because of the insufficiency of our data, and some imbalance of item numbers between the two kinds of question in CDS itself, we have not arrived at a clear conclusion about the matter, but such difficulties might be derived from the inherent limitations of

this kind of statistic approach to psychological phenomena, which kept us from reaching our goal; it was the frustrating feeling of an itch that one cannot scratch. Further study should be accompanied by some physiological research. Some experiments in animals' hypothalamic nucleuses which function to render animals inactive or intoxicated might be very fruitful for our studies; although it is impossible, of course, to evaluate animals' introspection on the state of their mood.

Further, in this study, we found again the high degree of effectiveness for diagnostic practice of the dual approach to child depression, which could be performed with CDS. The validity and the reliability of CDS has been tested by a number of researchers like Rotundo and Hensley recently. We sincerely hope that CDS will be further refined so as to incorporate even more excellent scales in the future.

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