

Sense of identity and depression in adolescents

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SUMMARY: Demir B, Kaynak-Demir H, Sönmez EI. Sense of identity and depression in adolescents. Turk J Pediatr. 2010; 52: 68-72.

The objective of this study was to investigate the relationship between sense of identity and depression in a group of adolescents. Thirty-one depressed adolescents and 31 control subjects were included in the study. They were evaluated using the Sense of Identity Assessment Form (SIAF), Hamilton Depression Rating Scale (HDRS), Beck Depression Inventory (BDI), and Beck Anxiety Inventory (BAI). Depressed adolescents were reevaluated during the eighth week of antidepressant treatment. Higher baseline SIAF scores were detected in depressed adolescents as compared with non-depressed subjects. After antidepressant treatment, there was a significant decrease in SIAF scores in the depression group. Correlation analysis indicated that there are significant, positive relationships between SIAF, depression, and anxiety scores. The regression analysis results suggested that the change in SIAF scores can accurately predict 91.6% of the remitters and 42.8% of the non-remitters. Collectively, these findings indicate that there is a close association between depression symptoms and identity confusion-related distress in adolescents.

Key words: depression, identity confusion, adolescence.

Adolescence is a time of emotional turmoil and heightened sensitivity to psychiatric disorders. According to the developmental model proposed by Erikson¹, a major developmental task of adolescence is identity formation. He suggested that every adolescent experiences an identity crisis during which he or she has to find an answer to the basic questions: "Who am I?" "Where did I come from?", and "What do I want to become?". Identity confusion develops when an adolescent fails to develop a coherent and enduring sense of self, experiencing significant difficulties regarding his or her roles, values and choices.

Erikson¹ has emphasized that identity confusion is not a descriptive diagnosis but a dynamic condition that makes an adolescent vulnerable to different psychiatric disorders. Supporting his idea, a number of findings in the literature indicate that adolescents presenting with psychiatric diagnoses including depression², alcohol³ and drug abuse⁴, and eating disorders⁵ have higher rates of identity-related problems. It was also found that

adolescents who experience identity confusion-related distress had more school and behavioral problems⁶. In concordance with these findings, a previous study that focused on adolescents who exhibited identity confusion showed that they had higher rates of psychiatric diagnoses, behavioral problems, abnormal personality features, and impaired global functioning level⁷.

The objective of the current study was to investigate the relationship between sense of identity and depression in a group of adolescents. It was also aimed to determine the severity of difficulties in the area of sense of identity after a period of antidepressant treatment.

Material and Methods

The sample consisted of two groups of adolescents who presented to the Student Health Center of Middle East Technical University with depressive or physical symptoms. The depression group (31 adolescents; 16 female, 15 male; mean age \pm SD: 21.67 \pm 2.38, range:

17-27) was consecutively recruited among youngsters diagnosed with major depression and in whom antidepressant treatment was planned. The control subjects (31 adolescents; 16 female, 15 male; mean age \pm SD: 20.29 \pm 2.12, range: 17-25) were also consecutively recruited among adolescents who presented to clinics other than the psychiatry clinic with physical complaints. Informed consent was obtained from all research subjects before they were enrolled in the study. The study was completed in one year.

Depressed adolescents, after the first examination, were interviewed a second time with a structured clinical interview (Structured Clinical Interview for DSM-IV Axis I Disorders [SCID-I]) to probe the presence of depression symptoms according to the Diagnostic and Statistical Manual of Mental Disorders 4th edition (DSM-IV). Those with comorbid psychiatric conditions such as anxiety disorders were excluded from the study. The subjects whose Hamilton Depression Rating Scale (HDRS) scores were higher than 8 points were enrolled in the study. These subjects were further assessed using the Sense of Identity Assessment Form (SIAF), Beck Depression Inventory (BDI), and Beck Anxiety Inventory (BAI). After this initial evaluation, depressed adolescents began taking antidepressant medication, which was given to them according to the discretion of their primary physician. They were reevaluated during the eighth week of antidepressant treatment with the same examination battery including HDRS, SIAF, BDI, and BAI. Control subjects were examined once using the above-mentioned scales including SCID-I. None of these individuals was given any axis-I diagnosis according to DSM-IV.

Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-I): The SCID-I is a semi-structured interview for establishing major DSM-IV Axis I diagnoses^{8,9}. It was adapted into Turkish previously¹⁰.

Sense of Identity Assessment Form (SIAF): Based on Erikson's psychosocial theory of development, the SIAF was designed to assess the sense of identity development in adolescence^{11,12}. It consists of 28 items concerning problematic experiences about sense of identity. Participants respond to each item on

a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Higher scores indicate increased level of identity confusion. Studies investigating its psychometric properties showed that it is a sound instrument for determining identity confusion in adolescents. The internal consistency of SIAF was supported by Cronbach alpha coefficients that ranged between 0.90 and 0.91, and corrected item total correlation coefficients were above 0.25 in three previous studies^{7,11,13}.

Hamilton Depression Rating Scale (HDRS): The HDRS is a standard measure developed to evaluate the severity of depressive symptoms in patients diagnosed with major depression¹⁴. In this study, the 17-question form of the scale was used. The Turkish version of the scale was shown to be valid and reliable for the assessment of clinical depression¹⁵.

Beck Depression Inventory (BDI): This is a 21-question multiple-choice self-report inventory that was developed to measure the severity of depression¹⁶. Higher total scores indicate more severe depressive symptoms. It was shown that the Turkish version of the scale is a reliable and valid instrument to assess the severity of depression¹⁷.

Beck Anxiety Inventory (BAI): This is a 21-item self-report measure designed to assess the severity of anxiety symptoms in adult psychiatric populations¹⁸. It was previously adapted to the Turkish culture¹⁹.

Statistics: The comparison of continuous variables between the research groups was performed with an independent samples t-test. The within-group comparisons were performed with a paired samples t-test. The relationships between the SIAF scores and other measures were assessed with Pearson correlation analysis. Logistic regression analysis was employed to assess if SIAF scores predict group membership. P-values less than 0.05 were regarded as statistically significant.

Results

The scores elicited by the scales and statistics for within- and between-group comparisons are presented in Table I. On initial examination, as compared with the control subjects, patients

had significantly higher scores on SIAF, HDRS, BDI, and BAI ($p < 0.001$, for all comparisons). The comparison of pre-treatment *vs.* post-treatment scores on the psychiatric measures revealed that there was a significant decrease in mean depression and anxiety scores after the treatment. Furthermore, there was a significant decrease in SIAF scores after antidepressant treatment ($p < 0.001$, for all comparisons).

The correlation analysis results showing relationships between the SIAF, depression, and anxiety scores are presented in Table II. These results revealed significant relationships between the SIAF scores and depression and anxiety scales.

A possible effect of gender on any measure was investigated by comparing scores of male and female subjects separately in the patients and controls, but no statistically significant differences were determined.

Further analysis of the data revealed that there were 7 adolescents whose HDRS scores were higher than 8 points at the end of the study. They were considered *non-remitters* regarding their response to antidepressant treatment. The within-group comparison of SIAF scores (baseline *vs.* endpoint) revealed that while there was a significant decrease in remitters (baseline, 78.3 ± 19.3 , endpoint, 57.2 ± 16.0 ; $t: 4.53$, $df: 23$, $p < 0.001$) there was no significant difference in non-remitters (baseline, 87.0 ± 13.6 , endpoint, 84.8 ± 12.1 ; $t: 0.64$, $df: 6$, $p = 0.543$). The effect size of the change for the remitter and non-remitter groups was 1.19 and 0.16, respectively. The comparison of baseline and endpoint SIAF scores of remitters *vs.* non-remitters showed a significant difference only for endpoint scores ($t: 1.09$, $df: 29$, $p = 0.281$ for baseline; $t: 4.19$, $df: 29$, $p < 0.001$ for endpoint). As compared with the scores of the control subjects, non-remitters (8th week) still had higher SIAF scores. However, there was no difference between the scores of remitters and values determined in controls.

Finally, logistic regression analysis was performed in order to assess if the change in SIAF scores correctly predicts remitter and non-remitter groups. The analysis showed that the change in SIAF scores can correctly predict 91.67% for remitters, 42.86% for non-remitters, and 80.65% on average (*Wald: 4.24*, *df: 1*, *R: -0.26*, $p < 0.05$).

Discussion

To our knowledge, this is the first study in the literature to assess changes in the state of identity confusion longitudinally during the course of antidepressant treatment in depressed adolescents. The major finding of this study was the close association determined between depression symptoms and identity confusion-related distress in such youngsters. This was shown by higher SIAF scores in depressed adolescents as compared with non-depressed subjects. Within group analysis showed that after successful antidepressant treatment, there was a significant decrease in the severity of identity confusion in the depression group. Correlation analysis indicated that there was a significant and positive relationship between SIAF, depression, and anxiety scores. A higher correlation was obtained between BDI-SIAF scores as compared with BDI-HDRS scores, which might be related to the fact that BDI is more sensitive to the cognitive dimension of the depressed affect. The comparison of baseline *vs.* endpoint SIAF scores of remitters and non-remitters showed that while there was a significant decrease in remitters there was no significant difference in non-remitters. Finally, the regression analysis findings suggest that the change in SIAF can accurately predict 91.6% of remitters and 42.8% of non-remitters.

Collectively, the above findings may indicate a dynamic two-way relationship between the severity of sense of identity-related distress and depression symptoms, *i.e.* depression symptoms can be an affective reaction to underlying identity-related conflicts as well as amplifying the severity of ongoing identity-related distress. As a response to antidepressant treatment, there was a significant fall in the SIAF scores of depressed adolescents. When compared with the values of control subjects, remitters did not have higher scores on SIAF, which indicates a lessening in the intensity of identity confusion in parallel with lessening of depression symptoms.

In this study, there was no psychotherapeutic approach implemented concomitantly during the course of antidepressant treatment for depressed adolescents. Thus, the only treatment modality was the use of antidepressant medications. The quick change in identity confusion-related distress of depressed subjects

Table I. Comparison of the Test Scores Within (1st vs. 2nd Assessments) and Between (Patient vs. Control) Groups

	Control		Patient		Control-Patient Groups			Patient 1st vs. 2nd interviews		
		1st Interview	2nd Interview		t	df	p	t	df	ρ
SIAF	49.4 ± 16.7	80.2 ± 18.4	63.4 ± 19.1	6.8	60	<0.001	4.4	30	<0.001	
HDRS	1.8 ± 2.0	13.3 ± 5.6	5.2 ± 3.8	10.6	60	<0.001	8.0	30	<0.001	
BDI	4.4 ± 4.4	25.3 ± 9.1	9.1 ± 9.3	11.5	60	<0.001	7.6	30	<0.001	
BAI	7.1 ± 5.1	23.8 ± 10.7	11.8 ± 8.4	7.7	60	<0.001	6.3	30	<0.001	

SIAF: Sense of Identity Assessment Form, HDRS: Hamilton Depression Rating Scale, BDI: Beck Depression Inventory. BAI: Beck Anxiety Inventory.

Table II. The Correlations Between the Scores of SIAF, Depression, and Anxiety Scales in Depressed Adolescents (Pretreatment) and Control Subjects (n=62)

	SIAF
HDRS	.603*
BDI	.771*
BAI	.630*

* $p < 0.001$

SIAF: Sense of Identity Assessment Form. HDRS: Hamilton Depression Rating Scale. BDI: Beck Depression Inventory. BAI: Beck Anxiety Inventory.

as a response to eight-week antidepressant treatment indicates that a close relationship exists between the faculties of *identity* and *affect* for the youngsters.

Our results are concordant with previous findings indicating an association between depression symptoms and identity-related problems in adolescents. In Çuhadaroğlu's study², a group of university students with psychiatric complaints were found to be suffering identity confusion more than those having only physical symptoms and healthy controls. Her findings also indicated that there is a correlation between the severity of depressive symptoms and identity confusion scores, not only for the psychiatric group but for all subjects, which may suggest that depressive affect is a common reaction to underlying identity confusion-related distress in adolescents.

Finally, from a clinical standpoint, these findings imply the necessity for increased sensitivity toward the dimension of identity formation in adolescents who present with psychiatric symptoms. Particularly for depressed

adolescents, an important treatment challenge should be to identify underlying identity-related conflicts.

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