

Changes in Psychological Adjustment of Female Students During the First Year of Study: Analysis of Defense Mechanisms

Abstract

The beginning of a study represents for freshmen a difficult period of adjustment. Observations obtained in student counseling centers as well as in investigations of students' adjustment indicate that the beginning of a study represents for students a specific crisis period determined by dealing with the experiences of 'psychological separation'. Therefore, the aim of the investigation was to prove the existence of a crisis period at the beginning of a study by investigating the change of students' psychological adjustment and their use of defense mechanisms during their first year of study. In regard to this aim the task of the investigation was to examine

- I. the significance of differences in the level of psychological adjustment and defense mechanisms at the beginning and the end of the first year of study, and also
- II. the contribution and correlation of defense mechanisms to psychological adjustment.
- III. In this investigation were involved female freshmen (N=80) at the Department of Educational Sciences at the University Juraj Dobrila in Pula (Croatia).
- IV. The obtained results confirm the existence of a crisis period at the beginning of a study.
 - i. In the investigation a significant lower level of self-esteem and also a significant higher level of the use of defense mechanisms were obtained at the beginning than at the end of the first year of study. Also
 - ii. In these different self-esteems, during the first year of study, different defense mechanisms had significant contribution. So at the beginning (in lower level of self esteem) a significant contribution had lower mechanisms, such as projection while at the end of the first year of study (in higher level of self esteem) a significant contribution had higher defense mechanisms such as reactive formations.
 - iii. In the analysis of correlations among defense mechanisms and different levels of self-esteem the same results have been obtained so that at the beginning, significantly negative correlations had lower mechanisms, such as projection, regression and compensation, while at the end of the first year of study, excluding projection as lower mechanism, higher mechanisms had significant correlations, such as reaction formation and repression.
 - iv. These results contributed to the understanding specificities of initial studying and to developing appropriate psychological approaches in student counseling centers.

Keywords: conflictual dependency; late adolescence; rapprochement crisis; second separation-individuation

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Aldo Spelic

University of Juraj Dobrila in Pula, Croatia

Correspondence: Aldo Spelic, Nazorova 4, Pula 52100, Croatia, Tel 0038552382077; Email aldo.spelic@gmail.com

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Introduction

Problems of studying failure in the form of breaks and prolonged studying are increasingly taking place in contemporary research. The reason for this lies in the observations that 30% to 50% of enrolled students do not finish studies and at the same time three quarters of them break studying during the first two years of study.¹⁻⁴ In Croatia the situation is similar, so through examination of the proportion between enrolled and graduated students there is evidence that only 35% of them successfully complete studies as well as only 14% in regular term.⁵ Therefore, nowadays there is an increasing number of investigations of students' psychological adjustment to study which confirm Holmbeck & Wandrei.⁶ observations that the variables, such as separation-individuation, family relationships and personality

characteristics of students have better predictive validity in relation to variables such as cognitive status or leaving the family. Difficulties at the beginning of the study that students encounter are mostly explained by the fact that arriving to study for all of them represents a period of first major life changes and for some of them the first separation from the primary family.^{7,8}

The problem of first major lifestyle changes at the beginning of the study are mainly associated with difficulties in new self-management, taking responsibility for their daily life, development of new social relationships, self-planning professional development and satisfying the demands of the study, expectations of their family and the new environment.⁹ In this initial building of a new level of competence, through permanent intrinsic estimations of their own accomplishments,

dominate the feelings of uncertainty and helplessness.¹⁰⁻¹² These initial events connected with the adjustment to study result in deficiency of freshmen confidence and self-esteem.¹³⁻¹⁵ as well as the appearance of the need for security, acceptance and comfort from others.¹⁶

The experience of the first separation from the family for many students represents the reason of their problem in adjustment at the beginning of their study.¹⁷⁻²⁰ However, it was observed that the experience of leaving the family home may have a positive meaning in regard to the results of adjustment during later years of studying. Thus, students who left their family home achieved greater positive changes in communication, affective relationships, independence and satisfaction in relation to students who during the study continued to live with their own families.²⁰

These problems of initial adjustment to study connected (associated) with the experiences of major lifestyle changes and separation from the family are to be viewed through a lens of specificity of developmental period of the late adolescence in which the young are at the beginning of the study. Therefore, all these happenings connected with students' initial adjustment to study are to be observed (reviewed) through developmental tasks of the late adolescence expressed by a transition to adulthood. So the beginning of study represents a period of 'emerging adulthood',²¹ in which demands for changes in roles and relations with others make a basis for a future redefinition of the existing psychic structure.²² Thus, results of students' success of adjustment to study, under influence of the psychoanalytic concept of adolescent development,²³ were viewed as the result of adolescent development success determined by the process of second separation-individuation.^{7,11,24-32}

In relation to the first separation-individuation.^{33,34}, when a child during the first three years of life, through differentiation of experiences of the self and other objects of outer world gains the ability for physical separation from the mother, in the second separation-individuation.^{23,35} the young during adolescence through abandoning earlier internalized parental representations and object relations gains the ability for psychological separation from parents. So, together with confrontation and working through psychological separation experiences start the revision of earlier, infantile internal working models and the construction of new mental structures of adult personality.⁷ The process of second separation-individuation begins in the period of early adolescence as un-differentiation state of the 'oneness' with the parental representations and ends in late adolescence as differentiation from early parental identification with which begins the building of autonomous adult personality.^{7,28,36}

These happenings make the basic sensitivity of this period the reason why it may be seen as a period of crisis. Therefore, coming to study and confronted with the demands of the construction of new social roles and competences students are faced with a new task of their own redefinitions as well as leaving their early representations and internalized object relations that have been up to now the holders of their security, self-esteem and social standards.²² Just the tasks of the psychological separation reactivate the processes of the second separation-individuation which determine the sensitivity of this period. Then, we are met with the appearance of separation anxiety and regressive states connected with it when the young express passive-dependent tendencies followed by feelings of limitation, fear, helplessness and uncertainty. In these situations, we are encountered with transient regressive states 'in the service of ego development', which can be even expressed in terms of fragmentation and disorientation at the psychotic level.³⁵

These regressive tendencies at the beginning of the study are recognized in the appearance of the students' increasing dependency on both parents, which was recognized as a significant cause of emotional, social and academic difficulties in students' adjustment at the beginning of their studies.^{7,25-28,30} Also, it was recognized that these difficulties are gradually reduced during subsequent years of studies. Therefore, some authors connect successful adjustment to a study with the earlier success in development of 'individuation from parents' abilities.³⁰ So, to achieve success in the initial study adjustment a special importance has the earlier overcoming of psychological separation experiences in the period of early adolescence. In the studies of psychological adjustment at the beginning of the study positive correlations were obtained between successful students' adjustment and earlier successful building of mature emotional relationships with their parents in the period of early adolescence in which starts the development of emotional autonomy.^{32,37,38}

Also, these regressive tendencies at the beginning of the study were recognized in many students' difficulties, such as homesickness, depression, lower self-esteem, social withdrawal, learning difficulty and physical, obsessive and phobic symptoms.^{5-7,11,13,14,16,39-41} These problems connected with the experience of psychological separation at the beginning of study are specially associated with the students' difficulties in the mourning process, which caused some universities to organize a special kind of psychological help to students who are faced with the death of their close persons during the study.⁴²

But, in dealing with the separation anxiety as a response to psychological separation experiences we also encounter defenses against those symbiotic-dependent needs and regressive tendencies associated with them. In these situations we are often faced with defenses in the form of denial of these symbiotic-dependent needs and escape from them to an idealization. It can be seen in the form of the so-called 'defensive narcissism', which in situations of emotional loss and separation, instead of the mourning experience, is expressed by denial of such experience through the building of omnipotent and idealized image of self, ie. 'positive illusion'.⁴³ Just these defensive activities are the basis of the risky behavior of the young in this period. Therefore, in the late adolescence and initial studying we are met with increased drugs and alcohol consumption, which decreases over the next years of study.^{44,45}

Through many investigations and psychotherapeutic experiences there are evidences of gender differences in the way of confrontation and working through the experience of psychological separation.^{6,28,32,46,47} Regarding the independence as a special value for male and connectedness for female adolescent development in a situation of dealing with the psychological separation experience we find denial of dependency and narcissistic-defensive behavior in male, while regressive and passive-dependent behavior accompanied by depression and physical symptoms in female adolescents. For a successful resolution of the second separation-individuation.³⁵ a special position has 'approachment crisis', which in accordance with the object relation theories.³⁴ represents the period of mastering the inner psychic conflict between the opposite needs initiated by the processes of psychological separation. This inner psychic conflict is expressed by needs for dependency on the primary objects and at the same time by needs for independency and distancing from them.^{24,48-50} A successful resolution of this process results in the construction of flexible, dialectical relationship or balance between these opposing needs for connectedness and independence.

In the period of the 'approachment crisis' we are met with difficulties in dealing with the aggressive - destructive impulses and

feelings which are induced by the regressive symbiotic needs and experience of primary dependency.^{23,34} In the separation experience together with the appearance of symbiotic-dependent needs and feelings of powerlessness and limitations associated with them, the experience of narcissistic injury is activated in which feelings of discontent, anxiety, anger, hatred and guilt represent a threat to the general psychological functioning. Consequently, the problem of overcoming the 'rapproachment crisis' by students at the beginning of their studies is followed by the appearance of 'negative separation feelings'.²⁸ The appearance of these feelings (at the beginning of study) represents a great obstacle in students' adjustment. Some investigations indicate that only students of later years are capable to cope with these conditions connected with the 'rapproachment crisis' without producing the emotional distancing and denial of the needs for closeness.^{7,19,28,30} These results suggest that students gradually with the development of a relatively stable balance between the opposite needs for connection and separation are capable to confront with conflictual dependencies that will create an independent identity in the context of positive communication and lack of alienation.³¹

The presence of these negative feelings in relations with a particular parent in the situation of separation, expressed by the term of 'conflictual dependency',²⁶ is recognized as the cause of the failure to students' adjustment at the beginning of their studies.^{7,19,27,28,30,46} Therefore, conflictual independence,¹⁹, expressed by the presence of 'positive separation feelings', represents a precondition for successful adjustment, contrary to conflictual dependency, where the presence of the 'negative separation feelings' represents an obstacle in students' adjustment expressed by higher levels of physical symptoms, social withdrawal and isolation of students.^{7,28}

Difficulties in adjustment to study may be understood as the result of an earlier failure in overcoming the developmental experience of psychological separation during early adolescence.^{32,38} Thus, the failure of this process in the period of early adolescence may be in later adolescent development recognized by two opposite ways of behaviors, such as the adolescent entanglement and complete oneness with parental identification in the form of fusion identity or as complete separation and isolation from them in the form of a negative identity.⁵¹ This problem of initial adjustment to study is in student counseling services specifically recognized in students with borderline personality structure whose unfavorable infantile development considering their early separation experiences is expressed in their difficulties of self-object differentiations, building close relationships and splitting.^{7,52}

Previously presented observations about specificities of students' adjustment at the beginning of study, Indicate:

- a) increased appearance of dependency, especially on their parents, where the 'conflictual dependency' represents a special obstacle to the initial adjustment to study,
- b) increased appearance of mourning problems connected with leaving a family home,
- c) increased appearance of regressive tendencies followed by a multitude of psychic and somatic symptoms, where depression has prominent position, and at the end
- d) increased use of denial and idealization as psychic mechanisms in defense against regressive tendencies, which lead to prominent appearance of risky behavior at the beginning of studies, speak in favor of the hypothesis that the beginning of study represents a specific crisis period determined by the experience of psychological separation whose successful mastery may have a significant impact on further successful studying.

So, through presented research results and observations of student counseling centers, the beginning of studies may be recognized as a specific crisis period in which the way of confrontation and working through the experience of psychological separation determine the success of students' adjustment to new emotional, social and academic demands. Therefore, it is important to examine these specificities of the initial study.

Investigations of adjustment specificity at the beginning of study follow many limitations because of the lack of results of students' psychological characteristics prior to their arrival to study which would in comparison with their results obtained at the beginning of the study give us more insights into regressive events and a complete picture of the specificity of initial adjustment. One of the possibilities is to investigate the specificity of initial study as a crisis period by the analysis of defense mechanisms which are present in psychological adjustment during the first year of study. Just through the investigation of relationships between a level of psychological adjustment at the beginning and the end of the first year of study with the dominant use of certain defense mechanisms in those periods we may gain an insight into initial studying as a specific crisis period. Therefore, the goal of this research is to gain an insight into specific events during the first year of study with respect to changes in the psychological adjustment of female college students and defense mechanisms which are present in these changes. Therefore, the tasks of the study are:

- i. to examine differences at the level of psychological adjustment and usage of defense mechanisms at the beginning and the end of the first year of studies and then
- ii. to examine contributions and correlations of certain defense mechanisms with those achieved by a psychological adjustment.

The basic hypothesis is that the beginning of studies is a specific crisis period specified by requirements for mastering the experience of psychological separation in which the difficulties of the first major life changes and the first separation from family for some of them overlap with developmental tasks of transition determined by the process of second separation-individuation in late adolescence.

Method

Participants

The sample included female freshmen (N=80) with the average age of M=19.30 (SD = 1.01) years at the Department of Educational Sciences at the University 'Juraj Dobrila' in Pula. These female freshmen were chosen from all female students (N=98) enrolled in the first year of study at the Department for Education at University 'Juraj Dobrila' in Pula. In the investigation were not included only those female students who enrolled in the first year of study for the second time and those who left the study during investigation, i.e. who did not participate in both situations of investigation. It is important to emphasize that the enrollment criteria at our department was the same as it was at other departments of our university and at other universities in Croatia, i.e. they were accepted on the basis of their results in previous secondary education (A levels). Therefore, our sample of female freshmen enrolled in our department does not differ from other groups of female freshmen at our as well as other universities. So we may conclude that this sample is representative for female freshmen in Croatia.

Instruments

Measures of Psychological Adjustment: Psychological adjustment is operationalized by levels of self-esteem, well-being and the

appearance of physical symptoms. It represents the measure of a successful building of the adult personality, which represents itself through 'an optimal psychological functioning related to the acceptance of self and the ability to fulfill personal and social responsibility aims'.⁵³

- a. **The Rosenberg's Self-Esteem Scale** is one of the most commonly used scale to measure self-esteem, which has been translated in our language and standardized in our sample.⁵⁴. This scale measures global values of self orientation. It consists of 10 claims that are estimated to Likert-type scale of 5 degrees from 0 (does not apply to me) to 4 (completely applies to me). Components analysis on this sample extracted one factor which explains 38.6% of the total variance in female students' self-esteem. Reliability (Cronbach alpha) of the scale on the sample is 0.81.
- b. **The Well-being Scale.**⁵⁴ is a measure of the general adaptation to a person's living conditions. This scale consists of 7 claims, estimated to Likert-type scale of 5 degrees from 0 (does not apply to me) to 4 (completely applies to me). Components analysis extracted one factor explaining 59.2% of the total variance in students' self-assessment. Reliability (Cronbach alpha) of the scale on our sample is 0.88.
- c. **The Perception of Somatic Symptoms Scale.**⁵⁵ is considered one of the indicators of psychological health of the individual. The presence of symptoms indicates the presence of mental health problems, and expresses the presence of negative emotions, states of increased physiological activation or continuous exposure to stress. The scale includes 30 common physiological reactions that occur with stress, or intense emotional states. Respondents should mark the frequency of physical reactions in the last month, on a Likert-type scale of 5 degrees (0 - never, to 4 - very often). Components analysis extracted one factor explaining 34.7% of the total variance in students' self-assessment of the intensity of physical symptoms. Reliability (Cronbach alpha) on a sample test is 0.93.

Test of Lifestyle and Defense Mechanisms

Plutchik et al..⁵⁶ was translated and standardized by the Center for psycho-diagnostic resources in Ljubljana.⁵⁷. This test has been used since 1990 in many studies in different populations in our country. The questionnaire was based on Plutchik theory of eight primary emotions and eight primary defense mechanisms, such as: reactive formation, negation, regression, repression, compensation, projection, displacement and intellectualization. In the 80-ies Plutchik and Kellerman conducted a number of studies with groups of psychiatric patients and people who were not receiving psychiatric treatment.⁵⁷ They found that psychiatric patients often use defense mechanisms that serve to release the emotions (regression, compensation, projection and displacement), while those who are not psychiatric patients often use defense mechanisms that serve to block emotion (reaction formation, denial, repression, and intellectualization). These diversities between 'liberating' and 'controlling' mechanisms correspond to the current division of the lower and higher defense mechanisms.

The test consists of 92 statements that respondents need to answer about the existence (yes - no) of certain forms of defensive behavior. The test results express the sum of positive responses to the claims associated with eight defense mechanisms, which represent a general measure of defense activities and the dominance of certain defensive behaviors. The construct validity of the test Lamovec et al..⁵⁷ was

examined on a large sample of Croatian and Slovenian population. The obtained results mainly correspond to the results obtained by Plutchik et al..⁵⁶ that are represented in the manual.⁵⁷. Equally, the examination of internal consistency (Cronbach alpha) of the entire test is 0.73, while the values of the individual scales range from 0.52 (repression) to 0.62 (regression). So, these results represent a satisfactory measure of the test reliability.

The Procedure of Research

The investigation was conducted at the Department of Educational Sciences at the University 'Juraj Dobrila' in Pula. It was organized during one school lesson at the beginning and the end of the academic year. Before the start of testing students were explained the purpose of the research and they were assured anonymity and confidentiality.

Results and Discussion

The central interest of this study is to examine observations obtained from student counseling centers about the beginning of studies as a specific period of crisis in which students' abilities of mastering psychological separation experiences determine their adjustment success to studies. Therefore, the task was to examine changes in psychological adjustment of female students during their first year of studies and then contributions and correlations of defense mechanisms in these changes.

Changes in the psychological adjustment and the use of defense mechanisms in female students during the first year of studies

With regard to investigation of specificities of female students' adjustment to the study a particular attention is paid to investigation of differences in measures of the psychological adjustment and defense mechanisms in two situations that are at the beginning and the end of the first year of studies. Therefore, in this part it was used t-test for great dependent samples. In the examination of changes in female students' psychological adjustment during the first year of studies, the result of a significant difference was obtained only for the variable of self-esteem ($t=3.390^{**}$), but not for the variable of well-being, although there was a tendency ($t=1.967$; $p=0.053$), nor for the variable of somatic symptoms ($t=0.734$). In students' self-esteem, significantly lower scores were obtained at the beginning than at the end of the first year of studies. These results speak in favor of observation about adjustment difficulties in the initial period of studies (Table 1).

Table 1 Differences in student psychological adjustment (self-esteem, well-being and somatic symptoms) at the beginning and the end of the first year

Variables of psychological adjustment	I investigation II investigation				
	M	s.d.	M	s.d.	t
Self-esteem	28.84	6.51	30.66	5.57	3.30**
Well-being	21.82	5.25	22.76	4.30	1.82
Somatic symptoms	38.98	18.62	39.73	18.76	0.49

$p<0.01^{**}$, $p<0.05^{*}$

These results also indicate that the self-esteem variable is the most sensitive measure of students' psychological adjustment to studies, which was recognized by other authors.^{7,13,14} This sensitivity of self-esteem as a measure of psychological adjustment in the initial period of study was explained by observations that the appearance of feeling of insecurity as a result of new requests for revision of internal working model leads to changes in students' self-esteem. As self-esteem represents the best measure of students' psychological

adjustment during their first year of studies, in further parts of the examination the interest is focused on changes in self-esteem as a measure of changes in students' psychological adjustment in the first year of studies.

In further research of students' adjustment specificity, the attention is paid to the investigation of changes in defensive activities of female students during their first year of study. Therefore, t-test for the large dependent samples was used to examine a significant difference in the level of defense activities, measured by a number of positive responses about the presence of certain types of defensive behavior, at the beginning and the end of the first year of study. The results, presented in (Table 2), show a significantly higher ($t=3.952^{**}$) defensive activity of female students at the beginning than at the end of the first year of studies. The same observations were obtained by the investigation of the use of lower ($t=3.102^{**}$) and higher ($t=2.468^{**}$) defense mechanisms. Therefore, higher level of defense activities as well as lower levels of self-esteem at the beginning of the studies indicates that the beginning of the study as a specific sensitive crisis period.

Table 2 Differences in the use of (all, lower and higher) defense mechanisms at the beginning and the end of the first year of study

Variable	I Investigation		II Investigation		t
	M	s.d.	M	s.d.	
All defense mechanisms	37.53	8.04	35.10	6.63	3.95**
Lower defense mechanisms	18.96	5.49	17.56	6.63	3.10**
Higher defense mechanisms	18.56	4.01	17.54	3.36	2.47**

$p<0.01^{**}$, $p<0.05^{*}$

A contribution of defense mechanisms in self-esteem of female students during the first year of study

The results of a significant difference in the levels of self-esteem and the use of defense mechanisms during the first year of studies, represented in the previous part are not good enough to portray the specificity of the initial adjustment to studies. Therefore, the

Table 3 Results of regression analysis of self-esteem as a criterion variable and (all, lower and higher) defense mechanisms as predictor variables at the beginning and end of the first year of studies

Variables	β	R^2	F
(I) at the beginning of studies			
All defense mechanisms		0.193*	2.122*
Lower defense mechanisms		0.186*	4.276**
Compensation	-0.18		
Displacement	-0.09		
Projection	-0.29**		
Regression	-0.04		
			0.359
Higher defense mechanisms		0.019	
(II) at the end of studies			
All defense mechanisms		0.199*	2.210*
Lower defense mechanisms		0.104	2.186
Higher defense mechanisms		0.127*	2.730*
Intellectualization	0.01		
Reactive formation	-0.30**		
Regression	-0.20		
Denial	-0.09		

$p<0.01^{**}$, $p<0.05^{*}$

regression analysis is used in order to test the contribution of certain defense mechanisms as predictor variables to the self-esteem as the criterion variable at the beginning and the end of the first year of studies (Table 3).

The obtained results of regression analysis, presented in (Table 3), show that the level of defense activities, expressed by the sum of all defensive behaviors, could explain 19.3% variance of the self-esteem at the beginning and 19.9% variance at the end of the first year of studies. Also, the results of the regression analysis show that there are qualitative differences in defensive activities during the first year of studies. So, at the beginning the lower defense mechanisms have a significant contribution to the obtained level of self-esteem, which could explain 18.6% variance of the self-esteem with the projection ($\beta=-0.29^{**}$) as a significant predictor, while at the end of the first year of studies higher defense mechanisms have a significant contribution, which can explain 12.7% variance of the self-esteem with reactive formation ($\beta=-0.30^{**}$) as a significant predictor.

These results indicate that changes in students' self-esteem during their first year of studies may be explained not only by the quantity, i.e. by higher defensive activities at the beginning than at the end of the first year of studies, but also by the quality of defense mechanisms used in these situations. Thus, the lower self-esteem at the beginning of studies may be explained by the dominant use of lower mechanisms such as projection, while the higher level of self-esteem at the end of the first year of studies may be explained by the dominant use of higher mechanisms such as reactive formation. Just through these differences in the contribution of lower and higher defenses, i.e. in using the mechanisms of projection and reactive formation, we can explain changes of psychological adjustment of female students during their first year of studies. Therefore, the results of a significant contribution of lower mechanisms at the beginning of studies in female students' self-esteem, which is then significantly lower than at the end of the first year of study, when a significant contribution in it has higher mechanisms, represents one more confirmation that the beginning of studies represents a specific sensitive period of a crisis. Insofar as, through analysis of these defensive mechanisms and their contribution to the obtained different levels of self-esteem during the first year of studies, we may better understand the way female students master the problem of initial adjustment to studies.

In this analysis, of special importance are Plutchik & Kellerman.⁵⁶ observations obtained from the studies in the 1980's, which show that the presence and dominance of lower mechanisms is associated with 'sick', while the presence and dominance of higher mechanisms is associated with 'normal' psychosocial functioning.⁵⁷ This difference is explained by the way of how the anxiety states are overcome. So in lower ('liberating') mechanisms there is a spontaneous discharge of tension, while in higher ('controlling') mechanisms there is the use of different ways of sustaining and controlling this tension discharge. These differences in the use of lower or higher defense mechanisms can be explained by differences in the structures of 'normal' and 'sick' personalities and also by the weight of some traumatic experience. Except for 'sick' personalities, who dominantly use lower mechanisms, 'normal' personalities can also use them in some traumatic and stressful situations. So, in a further part of discussion just through the display of characteristics of the projection as a lower defense mechanism, which has significant contribution in obtained level of self-esteem at the beginning of study, it is possible to provide an insight into specific events in female students' psychological adjustment at the beginning of their first year of study.

Just the projection as a significant predictor of the achieved self-esteem at the beginning of studies can best represent female students' difficulties during this initial period of adjustment. The dominant presence of this mechanism tells us about a very intense, stressful and traumatic period in which students are at the beginning of their studies. So, being confronted with the experience of psychological separation at the beginning of studies and with the appearance of passive-dependent tendencies accompanied by feelings of helplessness and being overcome leads to the development of feelings of discontent, anxiety, anger, hatred and guilt which become carriers of the dynamics of the 'rapproachment crisis'.³⁴ This state represents a major difficulty in the resolution of activated processes of second separation-individuation. Precisely, this inability to confront with and work through 'negative feelings of separation', determined by certain aggressive-destructive impulses, leads to the use of projection defenses. These mechanisms allow 'evacuation' of negative feelings and stimuli outside themselves in their environment, which is experienced as hostile and dangerous representing the basis of students' difficulties in psychosocial functioning at the beginning of their studies. Negative consequences of the projection mechanisms may be recognized in reduced criticism and inability to accept other people's point of view and incentives, which represents a special problem in their social functioning. A particularly negative aspect of the use of projection defenses is connected with distrust to others and social withdrawal.

In student counseling centers observations were obtained that only after the students' construction of a new level of competence or inner psychic balance between these dependent tendencies and defenses against them, it is possible to confront with and work through these 'negative feelings of separation'.^{19,28} Only in later years of studies there was noted the possibility of student's confrontation with 'conflictual dependency, which is then not accompanied by withdrawal and loss of emotional relationships with others'.⁷ This mechanism with splitting and isolation is especially present in students with borderline personality structure. These students in coping with the experience of psychological separation show difficulties in psychosocial functioning in the form of difficulties in self-object differentiation, splitting and social isolation, which can lead to periodical psychotic states of fragmentation and disorientation.^{7,52} Just these transitory states

Blos.³⁵ recognized in adolescent development in their coping with experiences of psychological separation as regression in the service of ego development.

In relation to the projection, the presence of reactive formation as a higher defense mechanism at the end of the first year of study indicates the possibility of better mastering the anxious moods and therefore a better psychological adjustment. Exactly through the differences of these two mechanisms, with regard to their way of mastering anxious states, we can understand changes in the psychological adjustment of female students during their first year of studies. In contrast to the use of projection, where there is only the relief of tension and anxiety through the experience of other objects as carriers of projected negative feelings and contents, the use of reactive formation leads to a transformation of these negative feelings and motives in their opposites as an aspect of overcoming them. Thus, with the domination of this mechanism at the end of the first year of studies we encounter in student counseling centers positive changes in students in relation to their initial depression followed by passive-dependent tendencies as well as in relation to their tendencies toward social isolation and splitting in experiencing themselves and others.

In order to have a better insight into the role of defense mechanisms in the psychological adjustment of female students during the first year of studies the correlations among certain defense mechanisms and levels of self-esteem at the beginning and the end of the first year of studies are examined. The obtained results, presented in (Table 4), support the earlier observations on different contributions of lower and higher defense mechanisms to self-esteem of female students at the beginning and end of their first year of studies. So, at the beginning of studies there was obtained a significant negative correlation of lower mechanisms, such as compensation ($r=-0.22$), regression ($r=-0.23$) and projection ($r=0.33$), while at the end of the first year of studies there was obtained a significant negative correlation with the mechanisms of repression ($r=-0.22$), reactive formation ($r=-0.26$) and projection ($r=-0.25$). These results show that, except for the projection by which a significant negative correlation was obtained in both tested period, there is a difference between these two periods in the way that at the beginning significant negative correlations with self-esteem were obtained with lower mechanisms such as regression and compensation, while at the end of the first year significant negative correlations were obtained with higher defense mechanisms such as reactive formation and repression.

Table 4 Correlations (r) among variables of certain defense mechanisms and self-esteem at the beginning and end of the first year of studies

Defense mechanisms	I investigation	II investigation
Projection	- 0.33**	-0.25*
Regression	- 0.23*	-0.16
Compensation	- 0.22*	-0.21
Displacement	- 0.19	-0.17
Denial	0.05	-0.01
Repression	- 0.18	-0.22*
Reactive formation	- 0.02	-0.26*
Intellectualization	0.04	0.12

$p<0.01$ **, $p<0.05$ *

These obtained results of significant negative correlations of lower defense mechanisms of projection, regression and compensation with the obtained lower level of female students' self-esteem at the initial

period of studies, may explain many of their difficulties recognized in student counseling centers, such as depression, homesickness, social isolation, learning difficulties and anxiety accompanied by physical, obsessive and phobic symptoms.^{5-7,11,13,14,16,39,40-41} Just through the analysis of characteristics of these mechanisms the specificities of the students' adjustment at the beginning of their studies can be understood. In accordance with our observation of the specific crisis state at the beginning of studies related to the experience of psychological separation, the contribution of regression as a lower defense mechanism to the lower psychological adjustment (self-esteem) of female students at the beginning of studies speaks in its favor. So, Lamovec et al.⁵⁷ connect the presence of this mechanism with the difficulties in coping with states of powerlessness, primarily associated with the separation anxiety. In these conditions the regression is expressed in the emergence of passive-dependent and symbiotic needs followed by infantile and uncontrolled behaviors.

In the student counseling centers many psychologists recognized the existence of regression mechanisms in students' difficulties, such as increased dependence on parents, homesickness, passive-dependent needs and depressive states as a results of failure in confronting with and working through psychological separation experiences, especially at the beginning of studies.^{7,11,19,24-31} Then the feelings of helplessness and being overcome followed by the needs for security, acceptance and comfort were recognized in students.¹⁶ The occurrence of regression in the initial period of studies may also be recognized in an increased consumption of drugs and alcohol that decreases over subsequent years of studies.^{44,45}

Success in coping with these regressive tendencies at the beginning of studies is determined by the existence of mature mental structures that may have developed during the period of early adolescence. Thus, a particular importance in this early adolescent development has a positive emotional experience in building emotional autonomy in relations with parents. Thus, students with positive family experiences in the development of emotional autonomy during their early adolescence show greater success in overcoming the experiences of psychological separation and therefore better adjustment to the study.^{27, 31, 32, 37,38,47,58}

These obtained results, which indicate the important role of regression mechanisms in the initial adjustment, have to be seen through lens of a sample specificity, which consists only of female students. With regard to adolescent gender differences in working through psychological separation experiences, the observations are that females mainly react with the regression on the passive-dependent functioning level accompanied with a higher incidence of depression and physical symptoms, while males mainly react with the use of narcissistic defenses, such as denial of passive-dependent needs and idealization.^{28, 6,32,46} The understanding of compensation as well as the previously presented lower defense mechanisms (projection and regression) provide us a new insight into the specificity of the initial adjustment to studies. This mechanism is used in the situation of confrontation with separation experience. In the presentation of this defense mechanism the emphasis is placed on its use in situations of mastering experience of loss or separation from an emotionally important person with accompanying feelings of sadness and loss of self-esteem.⁵⁷ Therefore, the obtained significantly negative correlation of this mechanism with self-esteem speaks in favor of earlier remarks that female students in the initial adjustment to studies are confronted with difficulties in mastering the separation experiences.

In addition to that, the use of this mechanism suggests personal attempts to master the grief process and to establish their integrity and value weakened by the loss of identification object. The use of compensation as defense mechanism enables a persons to regain again through imagination or real events the previously lost sense of integrity and self-esteem. However, the negative aspects of this mechanism can be identified in the development of defensive narcissism in terms of unrealistic and idealized self-images or 'positive illusions'.⁴³, which are the carriers of risky students' behaviors. Similar manifestations are found in the mourning process, especially at the beginning of studies.⁴²

In relation to the lower mechanisms, such as projection, regression and compensation, which show significant negative correlations with self-esteem at the beginning, at the end of the first year of studies, significant negative correlations are obtained, except for the projection, with higher defense mechanisms, such as reactive formation and repression. The presence of a significant negative correlation between the use of projection and the obtained self-esteem at the beginning and end of the first year of studies indicate that the first year is a emotionally a very sensitive period. However, through changes from the used mechanisms of regression and compensation at the beginning to the used mechanisms of reactive formation and repression at the end a remarkable improvement may be observed in mastering the psychological separation experience as well as psychosocial functioning during the first year of studies.

The same improvement in adjustment to studies can be viewed through a significant negative correlation of repression and self-esteem level achieved at the end of the first year. The presence of repression as a defense mechanism in a higher level of self-esteem achieved at the end of the first year of studies indicates a greater ability of mastering the experience of psychological separation. The confirmation of this mastering success in initial adjustment difficulties of female students we may find in psychotherapist observations that the appearance of this mechanism through psychotherapeutic process represents a sign of a positive change connected with the reduction of initial anxiety.⁵⁷ Therefore, the presence of significant correlations of repression and reactive formation and the absence of compensation and regression with female students' self-esteem at the end of the first year of studies indicate the success of mastering the previous state of anxiety connected with the psychological separation experience.

These obtained observations about changes of self-esteem and the use of defense mechanisms during the first year of studies have a special importance in the adequate application of psychological approaches in student counseling centers. The problem we are confronted with in student counseling centers is the existence of many different psychological approaches to help students in their initial adjustment to studies. Among them, I would list three approaches that are based on the understanding that the therapist needs

- a. to provide positive support and help in coping with symbiotic-dependent tendencies, and to allow the construction of a new balance between the need for intimacy and detachment in relationships with others.⁶,
- b. to enable mastering of the state of 'conflicting dependency', i.e. occupation with feelings of discontent, anxiety, anger and guilt associated with a particular parent, where the emphasis is on confrontation and working through aggressive-destructive contents and on development of 'positive separation feelings'.^{19,30}, and

- c. to enable students to overcome the difficulties of early object relations experiences, which are expressed in their difficulties of self-object differentiation, ambivalence and social isolation.⁷

The obtained results of the presence of regression, projection and compensation as lower defense mechanisms in the lower level of psychological adjustment at the beginning of studies indicate that female students with difficulties in their initial adjustments require a positive affective support.⁶ that will prevent regression from passive-dependent behaviors, depression and physical symptoms and will also prevent triggering of compensatory or projective mechanisms that can lead to risky behavior or isolation.

In relation to the therapeutic tasks of confrontation and working through previous unfavorable aspects of development,⁷ and aggressive-destructive content accompanied by feelings of discontent, anxiety, anger, rage and guilt.^{19,30} the obtained results indicate the disadvantage of this approach especially at the beginning of studies. Such approaches may lead to the activation of projective mechanisms and therefore encourage paranoid aspects of personality that can lead to withdrawal and termination of therapeutic alliance. Only at the end of the first year, with the students' ability to use higher defense mechanisms, there are possibilities of gradual confrontation and working through conflictual, aggressive-destructive contents associated with the resolution of 'approachment crisis' and processes of the second separation-individuation. This is consistent with the results of studies,^{6,7,19,28,30,46} which have observed that the appearance of conflictual dependency is the biggest problem of students' adjustment at the beginning of their studies and that only students of older generations are capable of being confronted with and working through it. This is also consistent with the observations obtained in the group-analytic work with students of the first year in our college counseling center.⁵⁹ The content analysis of group work shows that only students at the end of their first year were able to confront with the 'approachment crisis', which is consistent with group analyst observations that coping with the aggressive-destructive content in the initial phase of the group process leads to a deeper regression and activation of paranoid mechanisms and the risk of group dissolution.⁶⁰

Conclusion

In this investigation of changes in psychological adjustment of female students during the first year of studies, the obtained results speak in favor of the observations gained in student counseling centers that the beginning of study represents for students a specific crisis period determined by their confrontation with psychological separation experiences.

The confirmation of the existence of a crisis state at the beginning of studies was obtained through the results of (1) lower self-esteem and higher presence of defense mechanisms at the beginning than at the end of the first year of studies. The specificity of these crisis states is expressed through the results which indicate that (2) lower initial levels of self-esteem can be explained by the contribution of lower defense mechanisms such as projections, while higher levels of self-respect at the end of the first year may be explained by the contribution of higher defense mechanisms, such as reactive formation. Also, in the analysis of correlation between defense mechanisms and different levels of self-esteem, observations were obtained that (3) at the beginning of studies there are significant negative correlations with the lower mechanisms, such as projection, regression and compensation that speak in favor of understanding this period as

the one determined by specific traumatic experience connected with psychological separation experiences in contrast to the end of the first year of studies when there are significant negative correlations with higher mechanisms, such as reactive formation and repression, which indicate partial mastery of this experience.

The obtained results indicate that in the psychological adjustment of female students during the first year of studies a special importance has the psychological separation experience whose mastery is determined by developmental processes of late adolescence. These processes have influence on the ego regression accompanied by the appearance of lower mechanisms that can interfere with the tasks of emotional, academic and social adjustment, especially at the beginning of studies. At the end of this research I would like to point out that there is a need for further research organized on larger students' samples of both sexes in which the emphasis will be on the investigation of the changes in the psychological adjustment during the later years of study and also on the contribution of defense mechanisms in these changes.

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