

Research Paper: Investigation of Maladjustment Based on Identity Status: Foreclosure, Identity Diffusion, Moratorium and Identity Achievement



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ABSTRACT

Background: The present study aimed to investigate maladjustment based on identity status among students of the University of Tehran.

Methods: In a descriptive-correlation and retrospective study, 107 male college students at the University of Tehran were selected by convenience sampling method. The extended objective measure of ego identity status and MMPI-2 college Maladjustment (Mt) scale were used for data collection. The obtained data were processed by using ANOVA with SPSS V. 22.

Results: Findings indicated significant differences among achieved, moratorium, foreclosed, and diffused identity statuses ($P < 0.05$). Also, there is a significant difference between diffused and achieved identity statuses. Individuals with diffused identity status have a higher level of maladjustment than individuals of other identity statuses.

Conclusion: According to the findings of the present study, individuals without identity exploration and commitment are more vulnerable to maladjustment behaviors. So these students need psychological intervention.

1. Introduction

It is more than 50 years that identity is the topic of detailed theoretical and experimental studies. Most theorists and scholars have adopted the identity of their work from the initial writings of Erikson [1]. Erikson defined identity as teenagers' fundamental growth task and transfer to adulthood. He noted that a sense of integrated and co-

herent identity is necessary to confront the challenges of adulthood. Identity is the fundamental aspect of adaptive psychiatric functions [2], protecting people from maladjusted behaviors such as committing crimes and drug abuse [3].

Moreover, most people have become individualists during the recent half of the century. The youth and teenagers' generation has increased who are mostly involved in the issues

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related to the identity and hence, personal responsibility has increased to create a life path by the individual [4]. So, the development of an integrated and coherent identity plays a great role that guides the person in life path [5].

If identity growth happens in the teenage period, the increase of individualism, especially in the students, prolongs the process of identity growth, being continued to the 3rd decade of life [6]. So, most young people stay in the issues related to identity until their 25 or older ages [4]. Therefore, the period can be considered as an important time to study maladjustment. Erikson [1] believed that the human spends one of the most important growth stages of life since maturity to early adulthood because the person should obtain identity comprehension at the end of this period. According to Erikson, the identity is derived from two sources: childhood identification confirmation or rejection by the teenager and their specific social and historical positions which provoke obeying specific criteria. Identity is defined negatively or positively when teens decide what they want to be or what beliefs they tend to have, and when they know what they don't want to be and what their beliefs like to be [1].

Marcia [7] selected two aspects of identity formation by employing Erikson's theoretical beliefs and created a valuable paradigm for the evaluation of the identity position. The paradigm refers to the commitment to investment, loyalty, and continued interest in the goals, values, and beliefs and identity exploration refers to goals, values, and acceptable beliefs to establish a meaningful commitment. Commitment provides motivation, interest, or intention to advocate something [7]. When exploration and commitment are considered as intersecting factors, four identity conditions would be imagined: foreclosed, moratorium, achieved, and diffused identity statuses.

Those with foreclosed identity have not experienced identity moratorium, as they have accepted family and relative's beliefs. The moratorium individuals are experiencing identity moratorium and they have the conflict of choosing between their demands and those of parents trying actively to find answers to their questions. Those with achieved identity have passed identity moratorium and achieved specific thinking positions, reaching a certain decision about their future and job. Individuals with diffused identity might or might not have identity moratorium; however, they have not yet reached an integrated concept about themselves [8]. These individuals tend more toward maladjusted behaviors such as drug abuse and committing a crime, and so on due to not determining certain beliefs about goals, job, life, and their future compared with the individuals of the other three groups.

The Minnesota Multiphasic Personality Inventory (MMPI) is one of the most widely-used personality assessment instruments in North America. A huge literature on its basic clinical scales and their correlates has been developed, but little research has focused on some of the more specialized scales derived from the MMPI. One of these scales that may be of particular interest to counselors and other clinicians working with a university or college student population is the MMPI-2 college Maladjustment (Mt) scale.

This scale was developed to identify emotionally maladjusted postsecondary students who may require longer-term or more intensive counseling or psychotherapy [9]. Maladjustment has been determined with some traits such as anxiety, distress, negligence, pessimism, and inefficiency. Those with maladjustment will show somatoform reactions to life pressures and they mostly feel that life is nothing but trouble [10]. Individuals with higher levels of maladjustment tend to practice behaviors such as drug abuse to solve their difficulties and conflicts.

Different studies on maladjusted behaviors in people with various identity statuses have concluded that exploration and commitment are predictably related to drug abuse. Among identity statuses, individuals with identity diffusion state have a higher level of maladjustment. Moreover, these people have transient behaviors such as instant meet of the needs, less intimate relationship, sense of humiliation, alienation, and ambivalence compared to other identity statuses [11, 12]. Individuals with achieved identity have stability in different aspects of their life. They act independently in the decision makings, are goal-oriented, and have planned for their life [12].

So, it seems that such people have a higher adjustment, having no tendency to maladjusted behaviors and drug abuse. Individuals with moratorium identity are deeply suffering from conflict, trying to achieve a stable and fixed identity. One of the main features of such individuals is excessive anxiety which is caused by their conflict, so they are expected to have higher levels of maladjusted behaviors. The main characteristic of foreclosed identity individuals is indisputable submission to the family and society's demands. So it seems that these individuals are dependent on the demands of the society, eschewing maladjusted behaviors, and drug abuse. Empirical studies support the reciprocal relationship between identity formation and mental health, even specifically in the vocational domain [13].

Based on Marcia's paradigm, it was shown that achieved adolescents present the best psychosocial adjustment profile and diffused adolescents the worst one,

moratorium, and foreclosed adolescents are in between. The new models of identity which highlight different types of diffusion and moratorium, contribute to specifying the relationship between identity formation and psychological adjustment. In the dual-cycle model, a carefree diffused status group scores higher on psychosocial and academic adjustment measures rather than a diffused status group [14]. Indeed, the adjustment level of the carefree diffused individuals is not significantly different from achieved and foreclosed groups.

Another point is that since Iranian students, in particular, male students have recently experienced more psychological stress due to unemployment and financial difficulties, on the one hand, and development of mass media and obtaining information about the culture of different countries, ethnicities, religions, and so on, on the other hand. It seems that they have experienced longer and severe identity moratorium duration and so the higher number of people with identity diffusion that leads toward maladjusted ways (such as drug abuse) to solve their psychological conflicts and challenges. However, the relationship between identity status and maladjustment in Iranian culture is not clear. Then, the present study aimed to investigate maladjustment in individuals with achieved, moratorium, foreclosed, and diffused identity statuses among students of the University of Tehran.

2. Methods

The research method of the current study is fundamental, descriptive-correlational, and retrospective. The study population comprised all male students of the University of Tehran from different fields. The study sample involved 107 male students selected by convenience sampling method. Three participants were excluded from the statistical analysis due to incomplete filling of the scale and hence final sample was 104 participants. The inclusion criteria included the desire and satisfaction to attend the research and aged between 18 and 30 years. The exclusion criteria included having a history of psychiatric disorders, or physical diseases. A semi-structural interview was conducted with participants to check the inclusion and exclusion criteria.

After selecting the subjects, inviting them for participation and cooperation and explaining research objectives, the extended objective measure of ego identity status (EOM-EIS-2) and MMPI-2 college Maladjustment (Mt) scale were distributed among the students and they were asked to respond the items carefully and choose the underlying answer based on their personality traits and do not leave questions unanswered as much as pos-

sible. The estimated response time was 40 minutes and the subjects' Mean \pm SD age was 23.95 \pm 3.46 years.

Study Measures

The MMPI-2 College Maladjustment (Mt) Scale

Students' maladjustment scale was determined to distinguish students with and without emotional adjustment [9]. The MMPI-2 college Maladjustment (Mt) is one of the complementary scales of Minnesota's multifaceted personality inventory. The scale items were selected from the set of MMPI-2 through comparing responses of 40 adjusted male and female students and 40 maladjusted male and female students. By employing the item analysis method, it was determined that 43 items distinguish adjusted students from maladjusted ones. Mt scale involves 41 items of 43 main items. The psychometric properties of the scale were investigated and confirmed by different studies. Butcher et al. [15] obtained the internal consistency coefficients of 0.84 and 0.86 for men and women, respectively. Kleinmuntz [9] obtained a retest reliability coefficient of 0.88 for students and Williams [16] obtained the coefficients of 0.91 and 0.90 for male and female subcategories, respectively.

Parker [17] showed that the scale recognizes 74% of the maladjusted students. Also, Wilderman [18] found that higher scores of the students compared with the lower scores are accompanied by more raised profiles of MMPI and according to therapists' ranking, they are accompanied with intensive psychological pathology. Hence, the Mt scale has higher validity and reliability.

The extended objective measure of ego identity status (EOM-EIS-2)

The questionnaire was developed in 1979 by Adams et al. for the evaluation of the four identity statuses of foreclosed, diffused, moratorium, and achieved. In 1984, Adams et al. developed the EOM-EIS-1 through distinguishing ideological and interpersonal aspects, and finally in 1986 Adams and Banin developed EOM-EIS-2 through revising EOM-EIS-1 which involved 64 items [12].

Adams et al. [12] obtained the Cronbach alpha values of 0.63 to 0.75 for ideological scales and 0.58 to 0.80 for interpersonal scales. In the study of Rahiminejad on the Iranian samples, the Cronbach alpha of 0.59-0.73 was obtained for ideological scales and 0.60-0.81 for interpersonal scale.

The obtained data were analyzed by mean, standard deviation, frequency, and percentage for quantitative and qualitative variables. To assess the maladjustment in individuals with achieved, moratorium, foreclosed and diffusion identity statuses, the ANOVA was conducted. The normality of data was assessed and confirmed by the Kolmogorov-Smirnov test and the assumptions of homogeneity of variances were assessed and confirmed by Levene's test in SPSS V. 22.

3. Results

According to the descriptive statistics, the number of the study samples was 21 for foreclosed identity status, 29 for diffused, 34 for the moratorium, and 20 for achieved identity status. The Mean \pm SD age of participants was 24 \pm 3.11 years. The majority of subjects (70.7%) had average socioeconomic status and literacy level of 67% of the participant was at the bachelor level. Besides, 22% of the participants had a governmental job and 78 % were self-employed.

Table 1 presents the mean and standard deviation of the study groups. According to the Table, the mean and standard deviation of the group with foreclosed identity is 16.37(8.23), the group with diffused identity is 17.22(7.32), the group with moratorium identity is 13.19 (7.28) and the group with achieved identity is 10.25 (4.91). Moreover, the mean and standard deviation of the total groups is 13.69 (7.37).

Table 2 presents the one-way ANOVA test results for differences in the maladjustment means of groups with different identity statuses. The results of the study indicated that the four groups have a significant difference in maladjustment factor ($F=3.12$, $P<0.05$). More investigations and Scheffe Test (Table 3) showed that only the differences of individuals with diffused and achieved identity statuses are significant in paired comparison ($P<0.05$).

This means that the group with diffused identity has the highest mean and highest level of maladjustment, accordingly. The difference between diffused identity status groups is not significant compared with other identity statuses. Thus according to the findings of the present study, we can claim that these individuals have the lowest level of maladjustment. Although individuals with foreclosed and moratorium identity statuses have higher mean in maladjustment factors, their difference is not statistically significant with individuals having achieved identity. In other words, these three groups are similar in maladjustment factor.

4. Discussion

The research hypothesis of the present research was that individuals with moratorium and diffused identity statuses have the highest level of maladjustment and individuals with achieved and foreclosed identity statuses have the lowest level of maladjustment. However, differences are not significant in other groups. Hence, our research hypotheses are only confirmed in relation to individuals

Table 1. Mean \pm SD of foreclosed, moratorium, diffused and achieved identity groups in the maladjustment factor

Variable	Mean \pm SD	SE
Foreclosed identity	16.37 \pm 8.23	2.05
Diffused identity	17.22 \pm 7.32	2.44
Moratorium identity	13.19 \pm 7.28	0.88
Achieved identity	10.25 \pm 4.91	1.42
Total	13.69 \pm 7.37	0.72



Table 2. Differences in the foreclosed, diffusion, moratorium and achieved identity groups in maladjustment factor

Resource	SS	df	MS	F	Sig.
Between groups	477.40	3	159.13		
Within group	5143.50	101	50.92	3.12	0.029
Total	5620.91	104			

*ANOVA test.



Table 3. Results of Scheffe Test for paired investigation of the differences in the groups

Groups	1	2	3	4
1-Achieved	-			
2-Moratorium	6.18	-		
3-Foreclosed	5.23	6.28	-	
4-Diffused	5.16*	1.12	1.05	-

* P-value is significant at the level of 0.05.

with diffused identity. Our findings are consistent with the findings of Schwartz et al. [19], Mitchell and Olson [20], and Luyckx et al. [21]. Findings of past studies had shown that individuals with diffused identity have a higher level of maladjustment compared with individuals with other identity statuses. Moreover, these findings have shown that the relationships between identity exploration and psychiatric function are influenced by the identity moratorium, and compared with other identity statuses, individuals with achieved identity obtained higher scores of identity commitment and exploration.

Although past studies have shown that individuals with moratorium identity suffer from higher levels of anxiety, depression, maladjustment, and other forms of psychological traumas [22, 23], our findings were not consistent with their findings in the moratorium identity. The diffusion and moratorium profiles are similar as they both have a combination of high scores on self-doubt and commitment flexibility, and low scores on in-depth exploration and both commitment dimensions.

This finding may suggest that a combination of self-doubt and commitment flexibility is a risk factor. However, the searching moratorium profile, which is also characterized by high scores on self-doubt and commitment flexibility but is combined with intermediate scores on exploration in-depth and both commitment dimensions, is not an indicator of maladjustment. These results, therefore, suggest that when it is associated with low commitment and exploration in-depth, a high reconsideration of commitment constitutes a risk of psychological maladjustment [24-28].

Erikson believes that individuals' identity is formed through the employment of the two aspects of commitment and exploration. Commitment to investment, loyalty, and continued interest in the goals, values, and acceptable beliefs refers to the intention of creating a meaningful commitment. Past studies have shown that exploration and commitment are related to maladjustment and drug abuse predictably like studies carried out by Adams et al. [13].

Individuals with moratorium identity have a much lower level of commitment and exploration. Higher levels of maladjustment in these individuals can be justified because they have not spent a specific period of exploration, on the one hand, and they are not committed to a specific ideology, on the other hand. So they don't feel a need for finding personal or social identity, and they make their decisions based on their feelings and emotions. Also, they do not commit to their values and goals, so they are led to maladjustment when conditions are provided.

Besides, since these people have no specific ideology, they have various and contradictory beliefs that confront them with serious conflicts, and such conflicts seem to increase their pressure and anxiety and hence they look for a mechanism to reduce their pressure, employing drug abuse and maladjusted behaviors as pressure reduction mechanisms. When these mechanisms come in handy and reduce the person's anxiety and pressure and put the temporal lid on the psychological conflicts, they act in the form of negative reinforcement, improve drug abuse, and maladjusted behaviors in the person [29-32].

Individuals with achieved identity have both higher exploration and higher commitment. This means that they try independently for their goals and values, investigate them, find a specific ideology, and are committed to them. Hence, lower levels of maladjustment in these people can be explained as they are committed to their values and are not influenced by the environmental conditions of maladjustment provoke such as drug abuse. Considering that individuals with foreclosed identity have not passed the exploration period, achieving blind commitment in the social values, they avoid all contradictory maladjustments in the society, family, and their relatives.

5. Conclusion

Considering that the university atmosphere provides conditions for students to be more involved in identity-related issues (however this is not the case for non-stu-

dent individuals), much care should be taken in generalizing the present findings to non-student individuals.

It is recommended that future studies investigate the relationship between personal and ethnical identities and maladjusted and adjusted psychological functions. Moreover, the relationships between parenting and identity status can also be studied. Because the family plays a key role in identity orientation, each parenting style may be related to a specific identity status and behavioral difficulties and each parenting style predict specific identity status. Also, it is suggested that the present research subject be investigated on the female participants, and their differences be compared with the male participants.

Ethical Considerations

Compliance with ethical guidelines

Ethical approval for this article was registered with ethical Code: IR.TABRIZU.REC.1399.012.

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Authors' contributions

Study design: Rasoul Heshmati, Abbas Rahiminezhad; Data collection and analysis: Rasoul Heshmati; Manuscript preparation: Rasoul Heshmati, Abbas Rahiminezhad.

Conflict of interest

The author declared no conflict of interests.

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References

- [1] Erikson EH. Growth and crises of the healthy personality. *II. Psyche*. 1953; 7(2):112-39. [PMID]
- [2] Lerner RM, Freund AM, De Stefanis I, Habermas T. Understanding developmental regulation in adolescence: The use of the selection, optimization, and compensation model. *Hum Dev*. 2001; 44(1):29-50. [DOI:10.1159/000057039]
- [3] Shaw AJ. Adolescent girls' experiences of unwanted intercourse and unintentional pregnancy: A retrospective study. Canada: University of Northern British Columbia; 2012.
- [4] Arnett JJ. The psychology of globalization. *Am Psychol*. 2002; 57(10):774-83. [DOI:10.1037/0003-066X.57.10.774] [PMID]
- [5] Schwartz SJ, Côté JE, Arnett JJ. Identity and agency in emerging adulthood: Two developmental routes in the individualization process. *Youth Soc*. 2005; 37(2):201-29. [DOI:10.1177/0044118X05275965]
- [6] McGrath RG, MacMillan IC, Venkataraman S. Defining and developing competence: A strategic process paradigm. *Strategic manage J*. 1995; 16(4):251-75. [DOI:10.1002/smj.4250160402]
- [7] Marcia JE. Development and validation of ego-identity status. *J Pers Soc Psychol*. 1966; 3(5):551-8. [DOI:10.1037/h0023281] [PMID]
- [8] Meeus W. The study of adolescent identity formation 2000-2010: A review of longitudinal research. *J Rec Adolesc*. 2011; 21(1):75-94. [DOI:10.1111/j.1532-7795.2010.00716.x]
- [9] Kleinmuntz B. The college maladjustment scale (Mt): Norms and predictive validity. *Educ Psychol Meas*. 1961; 21(4):1029-33. [DOI:10.1177/001316446102100432]
- [10] Groth-Marnat G. Handbook of psychological assessment. United States: John Wiley & Sons; 2009.
- [11] Phillips TM, Pittman JF. Adolescent psychological well-being by identity style. *J Adoles*. 2007; 30(6):1021-34. [DOI:10.1016/j.adolescence.2007.03.002] [PMID]
- [12] Adams GR, Munro B, Munro G, Doherty-Poirer M, Edwards J. Identity processing styles and Canadian adolescents' self-reported delinquency. *Identity*. 2005; 5(1):57-65. [DOI:10.1207/s1532706xido501_4]
- [13] Luyckx K, Klimstra TA, Duriez B, Van Petegem S, Beyers W. Personal identity processes from adolescence through the late 20s: Age trends, functionality, and depressive symptoms. *Soc Dev*. 2013; 22(4):701-21. [DOI:10.1111/sode.12027]
- [14] Lannegrand-Willems L, Perche C, Marchal C. Vocational identity and psychological adjustment: A study in French adolescents and emerging adults. *J adoles*. 2016; 47:210-9. [DOI:10.1016/j.adolescence.2015.10.005] [PMID]
- [15] Butcher JN. Minnesota multiphasic personality inventory. *The Corsini Encyclopedia of Psychology*. 2010; 32(4):1-3. [DOI:10.1002/9780470479216.corpsy0573]
- [16] Williams CL, Butcher JN, Ben-Porath YS, Graham JR. MMPI-A content scales: Assessing psychopathology in adolescents. United States: University of Minnesota Press; 1992.
- [17] Parker CA. The predictive use of the MMPI in a college counseling center. *J Couns Psychol*. 1961; 8(2):154-8. [DOI:10.1037/h0043614]
- [18] Wilderman JE. An investigation of the clinical utility of the College Maladjustment scale. [PhD dissertation]. Ohio: Kent State University, 1984.
- [19] Schwartz SJ, Zamboanga BL, Weisskirch RS, Rodriguez L. The relationships of personal and ethnic identity exploration to indices of adaptive and maladaptive psy-

- chosocial functioning. *Int J Behav Dev.* 2009; 33(2):131-44. [DOI:10.1177/0165025408098018]
- [20] Mitchell AA, Olson JC. Are product attribute beliefs the only mediator of advertising effects on brand attitude? *ASQ.* 2000; 1(1) (E-ISSN: 1534-7311). [DOI:10.1353/asr.2000.0010]
- [21] Luyckx K, Schwartz SJ, Berzonsky MD, Soenens B, Vansteenkiste M, Smits I, et al. Capturing ruminative exploration: Extending the four-dimensional model of identity formation in late adolescence. *J Res Pers.* 2008; 42(1):58-82. [DOI:10.1016/j.jrp.2007.04.004]
- [22] Walker RL, Wingate LR, Obasi EM, Joiner Jr TE. An empirical investigation of acculturative stress and ethnic identity as moderators for depression and suicidal ideation in college students. *Cultur Divers Ethnic Minor Psychol.* 2008; 14(1):75-82. [DOI:10.1037/1099-9809.14.1.75] [PMID]
- [23] Jung E, Hecht ML, Wadsworth BC. The role of identity in international students' psychological well-being in the United States: A model of depression level, identity gaps, discrimination, and acculturation. *Int J Intercult Relat.* 2007; 31(5):605-24.
- [24] Bayrami M, Heshmati R, Karami R. Anxiety: Trait/sate, sensation seeking and marital satisfaction in married women. *Procedia Soc Behav Sci.* 2011; 1(30):765-70. [DOI:10.1016/j.sbspro.2011.10.149]
- [25] Ghamari Givi H, Moulavi P, Heshmati R. Exploration of the factor structure of positive and negative syndrome scale in Schizophrenia spectrum disorder. *J Clin Psychol.* 2010; 2(2):1-10.
- [26] Shaker A, Heshmati R, Rahimi MP. Investigation of marital adjustment in people with secure, preoccupied, dismissing and fearful attachment styles. *Procedia Soc Behav Sci.* 2010; 5:1823-6. [DOI:10.1016/j.sbspro.2010.07.371]
- [27] Heshmati RA, Ghorbani NI, Rostami RE, Ahmadi MO, Akhavan HA. [Comparative study of alexithymia in patients with psychotic disorders, non psychotic and normal people (Persian)]. *Sci J Hamadan Uni of Med Sci.* 2010; 17(1):56-61.
- [28] Bayrami M, Abad TH, Ghoradel JA, Daneshfar S, Heshmati R, Moslemifar M. The role of positive and negative affectivity, optimism, pessimism, and information processing styles in student psychological adjustment. *Procedia Soc Behav Sci.* 2012; 46:306-10. [DOI:10.1016/j.sbspro.2012.05.111]
- [29] Karimi L, Ramezani V, Ahmadi M, Heshmati R, Jafar E. Psychometric properties of Torrance test (Persian version) of creative thinking (A form). *Procedia Soc Behav Sci.* 2010; 5:1429-33. [DOI:10.1016/j.sbspro.2010.07.301]
- [30] Heshmati R, Ghorbani F. [The effect of Mindfulness-Based Stress Reduction (MBSR) program on physical functioning and Health Related Quality of Life (HRQOL) in people with Coronary Artery Disease (CAD) (Persian)]. *Cardiovasc Nurs J.* 2017; 5 (3): 16-25.
- [31] Bayrami M, Heshmati R, Ghotbi M, Ghoradel JA, Hojatipor H, Moslemifar M. Relationship between personality dimensions and hopelessness: a study on college students. *Procedia Soc Behav Sci.* 2012; 46:848-52. [DOI:10.1016/j.sbspro.2012.05.211]
- [32] Heshmati R. [Structural relationships among functional status, health beliefs and BMI in patients with CAD: The mediator role of cardiac self-efficacy (Persian)]. *J Health and Care.* 2016; 18(3):191-206.

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