Original Article

The Role of Identity Styles in Predicting Academic Motivation among Adolescent Girls

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Abstract

Introduction: The subject of identity styles and its role in different stages of life has been confirmed by numerous researches. However, the role of identity styles on academic motivation has not been considered. This study was conducted in response to a research need.This study was conducted aimed to investigate the relationship between identity styles and academic motivation in adolescent girls in Tehran.

Method: In a cross-sectional study, in the form of a correlational design, 201 participants were estimated among high school girl students and were selected using purposive sampling method. Data were gathered using demographic checklist, structured clinical interview, Berzonsky's identity style inventory, and Harter's motivational scale.

Results: The data analysis showed that identity styles explained 32.8% of the variance of academic motivation. Regression coefficients showed that informational identity style ($\beta=0.159$, $p<0.05$) and commitment identity style ($\beta=0.295$, $p<0.01$) directly and diffuse identity style ($\beta=-0.196$, $p<0.01$) reversely predicted academic motivation in adolescent high school girl students.

Conclusion: The findings of this study, in line with the previous studies, indicate the relation between identity styles and motivation. These findings indicate the importance of identity styles in academic motivation.

Declaration of Interest: None

Keywords: Academic motivation, Adolescent, Identity styles, Girls.

Introduction

Today, despite significant advances in educational systems around the world, attention to psychological and motivational components has not yet been taken into consideration (1). Experts agree that educational systems should put the motivating component in their educational core (1). Although academic motivation is considered as an important factor in academic achievement, educational systems can also be mutually supportive of academic motivation. Academic motivation is defined as student's desire regarding academic subjects when the student's competence is judged against a standard of performance or excellence. Academic motivation is a broad term incorporating many concepts studied by scholars that includes self-efficacy, determination, resilience, etc. All of these terms incorporate characteristics related to motivation. Findings of the study by Yardimci et al. (2) showed that the educational system can increase academic motivation in students and facilitate the obtaining of learning skills.

Other factors affecting academic motivation are personality and character traits (3). Students with different personality characteristics have different reasons for pursuing college degrees and different academic priorities (4).

In this regard, identity styles are one of the factors that can be effective in motivating students. Identity is one of the basic needs of human beings. Identity helps students to reach a definition of self. According to Erikson, the most important evolutionary task that adolescents face is the formation of a lasting sense of identity (5). During adolescence period, a person faces a challenging task of identity formation, and families, friends, and educational environments can act as a helpful or disruptive factor in this process (6).

Most of the identity research over the past four decades haves been inspired by the status paradigm. Marcia started operating a variety of base or identity status (7). A group that has gone through the crisis and reached to the obtained identity database through search and discovery (Identity achievement).The second group of people who have not yet come to the commitment and are in crisis and are known as a suspended base (moratorium identity). The third identity database, known as interruption, inhibition, or identity capture (***Identity foreclosure***), at which stage a person is in a commitment state, means that the person has reached to the commitment stage without having passed the critical stage. There are those who are not going through the crisis, that is, not in questioning, they are at confusing base (8).

The structure of Berzonsky's Identity Style (8) attempted to explain the differences in the way people are categorized in Marcia's identity status approach. This model assumes that there are light differences in the attitude of the adolescent about the formation, maintenance, or revision of this sense of identity. People who consciously and deliberately seek information acquiring (informational style); those who consider normative orientation as worthwhile (normative orientation); young people who by postponing and delaying along with avoiding to confront with identity issues and conflict, and their behavior is shifted by tacit and conditional implications instead of conscious reasons and normative standards (reflexive avoidance orientation) and those who avoid from collecting committed information and others (Commitment style).

Berzonsky and Kuk (9) studied the relationships between students' academic performance and psychosocial features of 460 university freshmen. The results signified that students with an informational identity style are well prepared to have academic success in a university setting and performed well in academic achievement, whereas students with a diffuse-avoidance style were in a disadvantage position and performed badly.

Despite the extensive studies conducted in the field of academic motivation, there is no study

on the relationship between the two indices of identity styles and academic motivation yet. Regarding the importance of educational motivation and its role in academic achievement and the existence of research gap in this area, the present study was conducted aimed to investigate the relationship between identity styles and academic motivation in adolescent girls.

Methods
The present study was a cross-sectional study in the form of a correlational design. For this purpose, among female high school students in Tehran, 201 participants were estimated using Green's formula and were selected using purposive sampling method and participated in the study after the confirmation of inclusion criteria and obtaining informed consent.

Inclusion criteria were: 1) age range of 15-18 years; 2) normal academic performance based on educational background; 3) obtaining informed consent from the participants and at least one of the parents. Exclusion criteria were as follows: 1) lack of natural intelligence; 2) diagnosis of acute psychiatric disorder based on structured clinical interview; 3) identification of any personality disorder; and 4) abnormal academic performance assuming three standard deviations from average. Data were collected using demographic checklist, structured clinical interview, Berzonsky's identity style inventory (ISI), and Harter's motivational scale. The data were collected at a time interval and analyzed through the hierarchical multi-variable regression analysis in the software environment of SPSS version 21. The significance level was considered to be 0.05. All stages of the study were performed after obtaining written consent from the participants and parents and based on the latest version of the Helsinki Declaration.

Measurements
1. Demographic Checklist: This questionnaire was developed and used by the researcher to collect personal information such as student age and parental education (10).

2. Structured Clinical Interview for DSM-4 (SCID-4): It is a Clinical Interview that is used to diagnose dysfunctions of axis 1 based on DSM-IV (8, 9). The reliability coefficient between evaluators for SCID is reported to be 0.60 (11-12). The diagnostic agreement of this tool was favorable for Persian language for most of the specific and general diagnosis with reliability greater than 0.60. The kappa coefficient for all of the current diagnoses and life expectancy diagnosis was 0.52 and 0.55, respectively (13-14).

3. Berzonsky's identity style inventory (ISI): A revised ISI questionnaire was developed to measure social cognitive processes and identity processing style (4). This tool has 40 questions with four types of identity processing: informational (11 questions), norm (9 questions), disclosure avoidance (10 questions) and committed (10 questions). The psychometric features of this tool have been reported as desirable in Iranian sample (15). In this study, the reliability of this scale was estimated to be 0.78 by Cronbach's alpha.

4. Harter's motivational scale: This questionnaire was designed by Harter aimed at assessing student's academic motivation. This tool has 33 items based on a 5-point Likert scale. The reliability of this questionnaire was estimated to be 0.76 using Cronbach's alpha.

Results
Data analysis was done using hierarchical multi-variable regression analysis. The pre-assumptions of the parametric tests were examined before the statistical test was selected. The results of Kolmogorov–Smirnov test showed that the distribution of the participants' scores was normal (p >0.05). Also, the linear relationship assumption between variables was assessed through the analysis of variance test and this pre-assumption was confirmed (p <0.01). The coefficient of tolerance and variance inflation of the research variables was greater than 0.1 and less than 10, which indicates that the variables of research are not collinear. The assumption of the independence of errors was

evaluated using the Durbin Watson (DW) Index. Ultimately, the histogram and box-plot curves showed that information related to any of the participants was not outlier. Regarding to the findings, the use of hierarchical multi-variable regression analysis was possible.

The average age of students were 16.51 with a standard deviation of 0.867. Demographic findings show that in terms of mother's education status index, 61 (30.3%) of the participants had diploma, 23 people (11.4%) had associate degree, 69 people (34.3%) had BSc degree, 40 people (19.9%) had MSc degree and 8 people (4%) had Ph.D. In terms of distribution of father's education statue, 56 (27.9%) of the participants had diplomas, 15 people (7.5%) had associate degree, 65 people (32.3%) had BSc degree, 39 people (19.4%) had MSc degree and 26 people (12.9%) had Ph.D. The correlation coefficients between the research variables in the form of correlation matrix are presented in Table 1.

Table 1: The results of correlation matrix of research variables

	1	2	3	4	5
1. Identity style-informational	-				
2. Identity style-normative	0.407 **	-			
3. Identity style-diffuse	-0.065	-0.042	-		
4. Identity style-commitment	0.432 **	0.486 **	-0.391 **	-	
5. Academic motivation	0.330 **	0.263 **	-0.351 **	0.483 **	-

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

As shown in Table 1, informational, normative and commitment styles are positively correlated with academic motivation at a significant level of 0.01. Also, the diffuse identity style is negatively correlated with academic motivation at a significant level of 0.01.

Table 2: The results of the hierarchical multi-variable regression the role of identity styles in predicting academic motivation

Variables	B	SE	β	T	P value
Identity style-informational	0.298	0.126	0.159	2.356	0.01
Identity style-normative	0.098	0.160	0.043	0.610	0.542
Identity style-diffuse	-0.363	0.121	- 0.196	-2.992	0.01
Identity style-commitment	0.540	0.142	0.295	3.789	0.01

The results of the hierarchical multi-variable regression analysis showed that identity styles explained 32.8% of the variance of academic motivation. Regression coefficient analysis showed that informational identity style (p <0.05, β = 0.159) and commitment identity style (p <0.01, β = 0.295) directly predicted academic motivation in high school girl students and diffuse identity style (p <0.01, β = 0.196) inversely predicted the academic motivation in high school girl students.

Discussion

This study was conducted aimed to investigate the role of identity styles in predicting academic motivation in adolescent girls in Tehran. Findings showed that between identity styles, informational identity and commitment

styles positively and diffuse identity style negatively predicted academic

Motivation in high school girl students. Although a relevant study was not found in reliable databases in the Iranian community, few studies have been conducted in this regard. In line with the findings of this study, the results of Duckworth et al. (3) showed that personality and character traits play as an important role in predicting academic motivation in students. Therefore, the educators believe that educational systems should put the motivating component in their educational core (1).

In general, in explaining these results, it can be acknowledged that Berzonsky (8) considered the cognitive and behavioral components to conceptualize identity style, and introduced three identity styles: informational style, normative style and diffuse /avoidant style. People with informational style make their decisions on the information they collect. This style is characterized by attributes such as cognitive complexity, self-regulation, openness to experience and autonomy. Individuals with informational identity styles have problem-oriented strategies, feel self-integrity, often postpone judgments, have clear career goals, and have high academic performance expectations and are committed to their firm goals. Young people with an informational orientation have basic, cognitive and structural hypotheses, and they have a global perspective towards the periphery, and they present an active role for themselves; they introduce themselves through values and personal goals and psychological characteristics; these individuals have certain criteria for judging belief issues and have an organic perspective towards the world (8). The identity-based motivation model also highlights issues to be examined and problems to be avoided in implementation. For example, it uniquely highlights the need to provide an interpretation of difficulty as importance rather than as a cue to disengage. It also highlights the bi-directional relationship between identity

and behavior. Thus, salient identities cue behavioral choices, but choices feel more meaningful if they feel identity-based (16).

These individuals are active in creating educational goals and have a high degree of earnestness and academic perseverance. Deal with social challenges and education; they have a sense of responsibility and emotional independence in their lives; they are educated in families with powerful parents who have clear educational standards, and they benefit from them in the education of their children. An informational style is associated with its own concept and a sense of mental health; these relationships are created through the intermediary of cognitive strategies to deal with problems in different fields. Persons with Diffuse /Avoidant styles use from emotional-focused strategies; avoid from decision-making situations, emphasize on perceived environmental outcomes in their decision-making, their behavior has no particular pattern, and have limited self-awareness, and ineffective documentary and cognitive strategies. The notion of a dysfunctional approach to problems with emotion-focused strategies is associated with a low level of commitment and self-esteem as well as instability. People with a Diffuse /Avoidant style will hesitate and, as far as possible, try to avoid addressing issues of identity and decision-making. In decision-making situations, they have little confidence in their cognitive ability, they usually have feelings of fear and anxiety before making decisions, and generally they use inappropriate decision-making strategies such as avoiding, excusing and reasoning in their decision-making. Despite the findings of the present study on the relationship between identity styles and academic motivation, further studies are needed to confirm these hypotheses.

On the other hand, identity is formed in family. Parental attitudes towards education may be of particular importance for adolescents' development of academic expectations. In fact, parental expectations for

their children appear to be one of the most consistent predictors of adolescents' own academic expectations. Parental involvement in their children's education, however, is less clearly understood. While this has been described as one of the most important predictors of academic expectations (17).

This study had some limitations in the implementation process. Due to the limited sample in high school girls' group in Tehran, it is not possible to generalize the results to other groups. It is suggested that in future studies, along with the paper and pen tool, biologic evaluations should be used to evaluate the indices.

This study was conducted aimed to investigate the relationship between identity styles and academic motivation in adolescent girls in Tehran. Findings showed that between identity styles, informational identity and commitment styles positively and diffuse identity style negatively predicted academic motivation in high school girl students. The findings of this study, in line with the research background, indicate the relation between identity styles and academic motivation. These findings could have clinical applications in the perspective of the education of the future.

Conflict of interest
Authors declare no conflict of interest.

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