

2023

The Mediating Role of Passion in the Relationships Between Academic Identity and Psychological Flourishing of University Students

Mohamed Sayed Abdellatif

Department of Educational Sciences, Faculty of Education, Prince Sattam Bin Abdulaziz University, Al-Kharj, Kingdom of Saudi Arabia \ *Department of Educational Psychology, Faculty of Education, Al-Azhar University in Assuit, Assuit, Egypt, m.heby@psau.edu.sa*

Follow this and additional works at: <https://digitalcommons.aaru.edu.jo/isl>

Recommended Citation

Sayed Abdellatif, Mohamed (2023) "The Mediating Role of Passion in the Relationships Between Academic Identity and Psychological Flourishing of University Students," *Information Sciences Letters*: Vol. 12 : Iss. 1 , PP -.

Available at: <https://digitalcommons.aaru.edu.jo/isl/vol12/iss1/25>

This Article is brought to you for free and open access by Arab Journals Platform. It has been accepted for inclusion in Information Sciences Letters by an authorized editor. The journal is hosted on [Digital Commons](#), an Elsevier platform. For more information, please contact rakan@aarj.edu.jo, marah@aarj.edu.jo, u.murad@aarj.edu.jo.

The Mediating Role of Passion in the Relationships Between Academic Identity and Psychological Flourishing of University Students

Mohamed Sayed Abdellatif^{1,2*}

¹Department of Educational Sciences, Faculty of Education, Prince Sattam Bin Abdulaziz University, Al-Kharj, Kingdom of Saudi Arabia

²Department of Educational Psychology, Faculty of Education, Al-Azhar University in Assuit, Assuit, Egypt

Received: 20 Jul. 2022, Revised: 2 Aug.2022, Accepted: 20 Aug.2022.

Published online: 1 Jan. 2023.

Abstract: This research aims at identifying the relationships between academic identity and both academic passion and psychological flourishing and exploring the mediating role of academic passion between academic identity and psychological flourishing. Four hundred and twelve female university students at the Faculty of Islamic Girls, Assuit Al-Azhar University, Egypt. participated in the research (age mean= 20.24, SD= 1.13). The academic identity scale (by the researcher), the academic passion scale (by Vallerand et al.,2003) and the psychological flourishing scale (by Dieber et al.,2010) were applied to the participants. Data were analyzed by Pearson's correlation coefficients and path analysis. Results revealed a statistically significant positive correlation between academic identity and both academic passion and psychological flourishing. Besides, results demonstrated the mediating role of academic passion between academic identity and psychological flourishing. These results can be utilized in developing psychological flourishing among university students and providing those in charge of educational planning and policies with some practical results that are useful in developing academic identity and passion through training and educational programs and strategies.

Keywords: Academic Identity, Academic Passion, Psychological Flourishing, Female University Students, Mediating Role.

1 Introduction

Psychological flourishing is one of the positive psychology central concepts that contribute to the development of psychological adjustment, a sense of satisfaction, and psychological reassurance[1]. It is a general and comprehensive concept that includes various concepts such as a purposeful life, positive relationships, engagement, emotional competence, self-esteem, and optimism [2]. Positive psychology highlighted that flourishing is a combination of feeling happy and working effectively, which is the highest level of psychological well-being and is an optimal state of mental health [3].

Psychological flourishing is distinguished by creativity, exploration, socialization, flexibility, and enjoyment of knowledge [4]. It concentrates on the individual's vitality towards seeking self-fulfillment and improving his life at all scientific, social, and psychological levels. It is an integrated building of positive feelings and psychological and social performance of the individual rather than considering the absence of mental illness [5]. Higher psychological flourishing is also associated with less psychological distress, better self-control, a more significant number of emotion regulation strategies, and better academic performance [6].

Adolescence and youth are periods of identity formation, especially when they experience life stresses and problems that cause a low level of adaptation and psychological well-being [7]. The academic identity contributes to adapting to university life, developing academic achievement, and later developing professional identity [8]. It also is correlated with the individual's self-esteem and life satisfaction [9], psychological adjustment [10], general life satisfaction[11], and academic performance [12]. Besides, the study results by Dastjerdi, Farshidfar, and Haji-abadi [13]demonstrated that identity is one of the most significant adolescence issues and that the achieved identity contributes significantly to the dimensions of psychological well-being.

Identity has four patterns, which are as follows: the diffused identity, which includes low exploration and low commitment to academic goals and values, the moratorium identity that denotes high exploration and a low commitment to academic goals and values, the foreclosed identity which refers to low exploration level and high

*Corresponding author e-mail: m.heby@psau.edu.sa

commitment to the academic goals and values, and the achieved identity that includes high exploration and high commitment to the academic goals and values[13].

Passion represents a human experience without which an individual would not find meaning in his life. It provides him with the psychological energy to participate and engage in activities of value. A university student's passion for his studies plays a significant role in academic performance and psychological well-being Vallerand et al. [14] presented his Dualistic Model of Passion, demonstrating its importance and effects. They explained that it is a strong tendency of the individual toward an activity of high value, which the individual loves, spends time and energy on, finds happiness and luxury, and achieves a balanced and purposeful life.

According to this model, passion includes two dimensions: the harmonious academic passion that contributes to the continuous happy engagement in academic work and helps to prevent experiences that negatively affect the individual due to psychological conflict and psychological discomfort, and the obsessive passion that controls experiences which negatively affect the individual as a result of psychological conflict and distress[15].

The emotions of pleasure, excitement, and enthusiasm are direct results of harmonious passion and not its components. According to Vallerand's model, passion occurs through three stages: the individual's choice of activity from the available activities, assessment of the chosen activity, and understanding this activity as part of an individual's identity [16]. Harmonious passion promotes self-fulfillment and leads to a meaningful life [17, 18].

The emotions of pleasure, excitement, and enthusiasm are direct results of harmonious passion and not its components. According to Vallerand's model, passion occurs through three stages: the individual's choice of activity from the available activities, assessment of the chosen activity, and understanding this activity as part of an individual's identity [16]. Harmonious passion promotes self-fulfillment and leads to a meaningful life and subjective well-being [16, 17, 18].

The student's transition from high school to university is one of the forms of stressful life events in his life, which may have negative effects represented in a decrease in the individual's sense of psychological well-being and academic achievement [19, 20]. Besides, university students suffer from unexpected changes in their lives, especially after the COVID-19 pandemic, which negatively affected levels of anxiety and psychological stress, contributing to a decline in their psychological flourishing [21]. The researcher believes that female students, especially in the early years of the university, need to enjoy a set of positive psychological characteristics that help them overcome the difficulties and pressures of life.

From the above, it is clear that there are logical correlations between the research variables (academic identity, academic passion, and psychological flourishing). The significance of this study is that it aims to investigate the relationships between these variables together as all of them are factors that positively affect the academic, psychological and social environment, contributing to the success of the learning process and achieving the quality of life and well-being of university students. It was also found that there is no theoretical model that combines the current variables in previous research. The research also seeks to develop a causal model that explains the causal relationships between the research variables. Hence, this research aims at identifying the relationships between academic identity and both academic passion and psychological flourishing and explore the mediating role of academic passion between academic identity and psychological flourishing among female students of the Faculty of Islamic Girls, Al-Azhar University.

Hence, the problem of the current research is determined in the following questions:

1. Is there a correlative relationship between academic identity and academic passion?
2. Is there a correlative relationship between academic identity and academic flourishing?
3. Is academic passion as a mediating variable affect the relationship between academic identity and psychological flourishing?

1.1 Review of the Literature and previous studies

1.1.1 Academic Identity

At the end of the 20th century, the concept of identity is investigated by social theories. The character of change in late modernity was seen as generating degrees of fragmentation and dislocation in social institutions and patterns of life that challenged existing basic assumptions about the nature of identity. Identity is a dynamic, self-constructed, and internal organization of motivations, abilities, beliefs, and history [22]. Academic identity is the personal commitment to a standard of excellence and the willingness to continue encountering a challenge, struggle, excitement, and

disillusionment that are essential components of the learning process [23]. It is the set of ideas and beliefs a student has about himself, his social relations in his academic framework, and his future professional orientations [24]. Lotfy [8] defines it as the student's ability to discover his/her academic values, beliefs, and goals, and the extent of his commitment to academic practices and adoption of effective methods that would lead him to achieve his educational goals.

Academic identity has four patterns as follows:

- *Diffused Identity*: It is the negative pattern of identity and includes low exploration and commitment to their university education. Individuals of this style tend to be random and indifferent, are characterized by indifference and mismatch, and do not engage in their academic tasks.
- *Moratorium Identity*: It is a prerequisite for fulfilled identity and involves high exploration, and low commitment to their university education: those with this style tend to hesitate, procrastinate and feel anxious and dissatisfied with studies.
- *Foreclosed Identity*: It involves low exploration, and high commitment to their university education. This type is characterized by closed-mindedness, and people in this type adopt the rules, laws, choices, and beliefs of others.
- *Achieved Identity*: It is the best pattern. It involves high exploration and commitment to their academic goals and values. Individuals of this style are characterized by the development of identity. These students are also highly regarded, work effectively under pressure, have deep social relationships with others, and are psychologically well-adapted [8, 13, 22, 25, 26, 27, 28, 29].

1.1.2 Academic Passion

Academic passion is a strong tendency toward an activity that individuals like, find important, and to which they devote time and effort [14]. Besides, it is a strong tendency among students toward an academic activity they like, find significant, and invest time and effort [30]. It refers to a continuous positive emotional state of the individual that depends on the meaning, which leads to a state of happiness resulting from the repetition of the cognitive and emotional evaluation of the activities that the individual likes to practice [31]. According to Curran et al. [32], passion is a human experience without which the individual does not find meaning in his life, because the experience provides the individual with psychological energy to participate and engage in activities of value that creates direct results, including the emotions of pleasure, excitement, and enthusiasm. Hence, there is a strong tendency toward a particular activity [33].

The dualistic model of passion developed by Vallerand et al. is one of the most famous models on which previous studies relied to study passion. They stated that passion consists of two main dimensions. The harmonious passion that raises from a controlled feeling within the individual makes the individual practice his activity freely and voluntarily without pressure. This type of passion is characterized by an acceptable engagement in an activity and balanced with other areas in the life of an individual without conflict between them. In contrast, obsessive passion arises from an uncontrolled feeling within the individual and this passion controls the individual's feelings when engaging in an activity that occurs frequently and continuously. This type of passion is characterized by the presence of internal or external pressures that compel the individual to engage in activity and neglect other activities in his life, and this may lead to a conflict between different activities that may result in the individual's reluctance and lack of integration in any of the activities [14].

Harmonious academic passion leads to continued happy work engagement and helps prevent negative experiences, while obsessive academic passion leads to psychological conflict during the practice of various academic activities, which negatively affects the individual in general [15].

1.1.3 Psychological Flourishing

Psychological flourishing is a state of psychological and social brilliance characterized by optimism, self-esteem, a sense of the meaning of life, forming positive relationships with others and contributing to their happiness, and enjoying various life activities [34]. It is a distinct building from psychological well-being as psychological flourishing is the highest level of psychological well-being and includes more comprehensive components. They pointed out that psychological flourishing is the individuals' love, enjoyment of their lives, and not experiencing chronic negative feelings about their lives; in addition to factors such as a sense of mastery, efficiency, control, and quality of life. Besides, Seligman [35] stated that it is the individual's possession of positive emotions, positive preoccupation, positive relationships, meaning, and achievement. Besides, flourishing denotes the combination of feeling happy and working effectively, which is the highest level of psychological well-being and the optimum state of mental health [3]. Schinkel

[36] defined it as "the individual's successful integration into activities that he values and is of value to him, and Surucu et al. [21] define it as the psychological, emotional, and social well-being of the individual and the effective performance of his tasks to perform the work successfully.

Several models have emerged that deal with psychological prosperity. Diener et al. [2] suggested a model with a single structure of psychological flourishing. It consists of only one dimension that includes many words expressing: having meaning and purpose in life, forming positive relationships with others, feeling competent, self-esteem, optimism, positive inclusion, and contributing to the happiness of others. It is a model concerned with the state of personal and social well-being for the occurrence of flourishing. It also focused on the integration of personality traits and social well-being in the occurrence of flourishing and has been used extensively in Arab and foreign research.

1.1.4 Relationships between academic identity, academic passion, and psychological flourishing

1.1.4.1 Academic Identity and Passion

Bouizegarene et al. [37] indicated that the dualistic model of passion assumes that activity is part of the individual's identity. They reported a positive correlation between the informational identity style and harmonious passion and a positive correlation between the standardized identity and obsessive passion, indicating that identity processes are significant determinants of passion. In addition, Yukhymenko-Lescroart [29] emphasized that there is a theoretical and empirical basis that passion and identity are interrelated. He concluded that academic identity and passion predict academic performance.

1.1.4.2 Academic identity and psychological flourishing

Berzonsky and Papini [38] explained that the individual's solution to the identity crisis is a positive solution that leads him to a happier life is his ability to perform his social roles efficiently and help him understand and accept himself and others. Regarding this relationship, Sepahvandi et al. [39] demonstrated a positive relationship between the pattern of normative identity and psychological flourishing and a statistically significant negative relationship between the diffused identity and flourishing, concluding that there is a statistically significant relationship between the patterns of identity and psychological flourishing. Harmonious passion leads to the integration of the importance of work into the individual's identity and allows meeting his needs for independence, efficiency, and positive relationships with others. It makes him in harmony with other aspects of his life, and all these factors are indicators of self-satisfaction [7, 40]. In addition, the study of Dastjerdi et al. [13] revealed a statistically positive correlation between the achieved identity and the following variables: relationships with others, self-acceptance, independence, and the presence of a negative and statistically significant correlation of the diffused identity with self-acceptance and positive relationships with others. They also indicated a negative and statistically significant correlation between the moratorium identity and self-acceptance and a positive correlation between the foreclosed identity and self-acceptance.

1.1.4.3 Academic passion and psychological flourishing

Harmonious passion promotes self-fulfillment and leads to a meaningful life [16, 17, 18]. The harmonious passion for physical activities leads to increased happiness, while obsessive passion has various unfavorable effects and limits psychological happiness [15, 41]. Abdel Aziz and Ayoub [42] reported positive, direct, and statistically significant impacts of harmonious academic passion on psychological prosperity. Furthermore, Sverdlik et al. [43] pointed out the role of passion in developing a sense of fit, self-regulation, and well-being among university students. Yukhymenko-Lescroart & Sharma [28] also found that harmonious passion for work positively contributes to life satisfaction, subjective happiness, and goal awareness, while obsessive passion does not contribute to goal awareness.

1.1.4.4 Academic identity, academic passion, and psychological flourishing

No study- within the limits of the researcher's knowledge- dealt with the study variables together, but there are some related studies in this field. Bernabé et al. [44] illustrated that identity has an indirect effect on the positive feelings (flourishing) of university students through the mediation of passion. They noticed that the two dimensions of harmonious and obsessive passion differ in the mediating effect on positive feelings (flourishing), where harmonious passion was positively associated with positive emotions (flourishing), while obsessive passion negatively correlated with it. Besides, the study of Bouizegarene et al. [45] indicated that the dualistic passion model of Vallerand assumes that activity becomes part of an individual's identity, that identity patterns are predictive of passion, and that passion leads to life satisfaction, and that identity and passion are positively correlated. In addition, different identity processing methods contribute to different types of passion, and both identity and passion contribute to life satisfaction. Al-Dabaa

[46] explained that harmonious passion is the most influential variable in predicting subjective well-being.

2 Methodology and Procedures

2.1 Research Model

The descriptive research design was utilized due to its appropriateness to the nature of this research to identify the relationships between the research variables.

2.2 Participants

The pilot research sample consisted of (192) female students (age mean = 20.03, SD= 0.83) to verify the research tools' psychometric properties, while the basic research sample comprised (412) female students from the Faculty of Islamic Girls, Assuit Al-Azhar University (age mean= 20.24, SD= 1.13) to test the research hypotheses.

2.3 Data Collection Tools

2.3.1 The Academic Identity Scale

The academic identity scale for university students was developed by the researcher to measure the student's academic identity. The author preferred to prepare a new one to suit the Arab identity and environment. The scale consisted of (20) items distributed into four patterns (diffused identity moratorium identity, foreclosed identity, and achieved identity). Participants choose from five alternatives ranging from strongly agree to strongly disagree. A high degree indicated a high level of students' identity patterns. The score of each pattern ranges from 5 to 25.

The construct validity through exploratory factor analysis with principal axis factoring was utilized, where Bartlett's test was 1732.43 with $df = 190$ and Kaiser-Meyer-Olkin (KMO) test = 0.874. According to the factor analysis of a large-item pool representing this domain, four specific factors were identified (diffused identity, moratorium identity, foreclosed identity, and achieved identity). The results revealed that the four factors have 53.34% of the total variance. Furthermore, Promax rotation demonstrated that the factor loadings of items ranged between 2.311 and 3.040, confirming the verification of the scale structural validity.

To determine the internal consistency, Pearson's correlation coefficient was calculated, where the values of the reliability coefficients between the score of each item with the total score of the pattern it belongs were significant at the level of 0.01. This means that the scale in general has good internal consistency and is reliable. Besides, Cronbach's alpha internal consistency coefficient was calculated to define the scale reliability, where the values of the reliability coefficients of the scale and dimensions were greater than 0.7, confirming the scale reliability.

2.3.2 The Academic Passion Scale

The academic passion scale developed by Vallerand et al. (2003) [14] was utilized in the current research because it is a well-documented scale that suits the characteristics of the research sample and that can achieve the research objective. The scale consists of (14) items distributed into two dimensions: harmonious passion (7 items) and obsessive passion (7 items). The participants have to rate on a 5- point Likert-type scale (ranging from strongly agree to strongly disagree). A high degree indicates a high level of a student's academic passion. The scores on each dimension of the scale range from 7 to 35 degrees. The scale developers verified its psychometric properties by conducting exploratory and confirmatory factor analysis.

In addition to the well-documented evidence of the scale validity and reliability, the construct validity through exploratory factor analysis with diagonally weighted least squares (DWLS) was calculated. Besides, the confirmatory factor analysis was conducted on the pilot study participants to examine the construct validity of the translated version of the scale by the researcher. The result indicated that the hypothesized two factors model represented an acceptable fit of data [$\chi^2 = 216.05$, $df = 76$, $\chi^2/df = 2.843$, comparative fit index (CFI) = 0.961, root mean square of error approximation (RMSEA) = 0.061, Tucker-Lewis index (TLI) = 0.989], which are all good indices. In addition, factor loading of items ranged between 0.687 and 0.816 which were significant at the 0.01 level, indicating the scale construct validity.

To determine the internal consistency, Pearson's correlation coefficient was calculated, where the values of the reliability coefficients between the score of each item with the total score of the pattern it belongs were significant at the level of 0.01. This means that the scale in general has good internal consistency and is reliable. Besides, Cronbach's alpha internal consistency coefficient was calculated to define the scale reliability, where the values of the reliability coefficients of the scale and dimensions were greater than 0.7, confirming the scale reliability. The Composite

reliability also was calculated using Kline's [47] formula and all the coefficients were more than 0.07 confirming the scale reliability.

2.3.3 The Psychological Flourishing Scale

The psychological flourishing scale developed by Diener et al. (2010) [2] was utilized in the current research because it is a well-documented scale that suits the characteristics of the research sample and that can achieve the research objective. The scale consists of (8) items. The participants have to rate on a 5- point Likert-type scale (ranging from strongly agree to strongly disagree). A high degree indicates a high level of a student's psychological flourishing. The scale scores ranged from 8 to 40. The scale developers verified its psychometric properties by conducting exploratory and confirmatory factor analysis.

In addition to the well-documented evidence of the scale validity and reliability, the construct validity through exploratory factor analysis with diagonally weighted least squares (DWLS) was calculated. Besides, the confirmatory factor analysis was conducted on the pilot study participants to examine the construct validity of the translated version of the scale by the researcher. The result indicated that the hypothesized 8 items model represented an acceptable fit of data [$\chi^2 = 54.78$, $df = 20$, $\chi^2/df = 2.739$, comparative fit index (CFI) = 0.963, root mean square of error approximation (RMSEA) = 0.062, Tucker–Lewis index (TLI) = 0.958], which are all good indices. In addition, factor loading of items ranged between 0.517 and 0.859 which were significant at the 0.01 level, indicating the scale construct validity.

To determine the internal consistency, Pearson's correlation coefficient was calculated, where the values of the reliability coefficients between the score of each item with the total score of the pattern it belongs were significant at the level of 0.01. This means that the scale in general has good internal consistency and is reliable. Besides, Cronbach's alpha internal consistency coefficient was calculated to define the scale reliability, where the values of the reliability coefficients of the scale and dimensions were greater than 0.7, confirming the scale reliability. The Composite reliability also was calculated using Kline's [47] formula and all the coefficients were more than 0.07 confirming the scale reliability.

2.4 Data Analysis

To analyze the results of the current study, IBM SPSS v.20 programs were used, and the following statistical methods were used: means and standard deviations, Pearson correlation coefficient, Cronbach's alpha, Exploratory factor analysis, Composite reliability (CR), Path analysis, and mediation analysis.

3 Results

3.1 Testing the First Hypothesis

The first hypothesis is developed as follows:

H1: " There is no statistically significant correlation between the scores of the research sample students in the academic identity scale and academic passion scale".

To verify this hypothesis, Pearson's correlation coefficient between the scores of the research sample students on the academic identity scale and their scores on the academic passion scale was conducted.

Table 1: The values of Pearson's correlation coefficients between the students' research sample scores on the academic identity scale and the academic passion scale

Variables		Academic Passion scale	
		Harmonious Passion	Obsessive Passion
The Academic Identity Scale	Diffused Identity	-0.431**	0.171**
	Moratorium Identity	-0.374**	0.214**
	Foreclosed Identity	-0.490**	0.202**
	Achieved Identity	0.197**	-0.338**
	Total score	-0.302**	0.346**

*Significant at (0.05), **Significant at (0.01)

Table (1) results demonstrate that:

- There is a statistically significant negative correlation at (0.01) level between the female students of the research sample scores on the academic identity patterns of (diffused, moratorium, and foreclosed) and their scores in the

dimension of (harmonious passion) on the academic passion scale. In addition, there is a statistically significant positive correlation at (0.01) level between the female students of the research sample scores on the academic identity patterns of (achieved identity) and their scores on the dimension of (harmonious passion) on the academic passion scale.

- There is a statistically significant positive correlation at (0.01) level between the female students of the research sample scores on the academic identity patterns of (diffused, moratorium, and foreclosed) and their scores in the dimension of (obsessive passion) on the academic passion scale. In addition, there is a statistically significant negative correlation at (0.01) level between the female students of the research sample scores on the academic identity patterns of (achieved) and their scores on the dimension of (obsessive passion) on the academic passion scale.
- The values of the correlation coefficients between the dimensions of the academic identity scale (diffused identity, moratorium identity, foreclosed identity, and achieved identity) and the dimension of (harmonious passion) dimension of the academic passion scale are (-0.431, -0.374, -0.940, 0.197), respectively, and all of these values are statistically significant at (0.01).
- The values of the correlation coefficients between the dimensions of the academic identity scale (diffused identity, moratorium identity, foreclosed identity, and achieved identity) and the dimension of (obsessive passion) dimension of the academic passion scale are (0.171, 0.214, 0.202, -0.338), respectively, and all of these values are statistically significant at (0.01).

3.2 Testing the Second Hypothesis

The second hypothesis is developed as follows:

H2: " There is no statistically significant correlation between the scores of the research sample students in the academic identity scale and academic flourishing scale".

To verify this hypothesis, Pearson's correlation coefficient between the scores of the research sample students on the academic identity scale and their scores on the academic flourishing scale was calculated.

Table 2: The values of Pearson's correlation coefficients between the students' research sample scores on the academic identity scale and the academic flourishing scale

Variables		Academic flourishing
The Academic Identity Scale	Diffused Identity	-0.489
	Moratorium Identity	-0.323
	Foreclosed Identity	-0.543
	Achieved Identity	0.214
	Total score	-0.376

*significant at (0.05), **Significant at (0.01)

- There is a statistically significant negative correlation at (0.01) level between the female students of the research sample scores on the academic identity patterns (diffused, moratorium, and foreclosed) and their scores on the psychological flourishing scale. In addition, there is a statistically significant positive correlation at (0.01) level between the female students of the research sample scores on the academic identity patterns of (achieved identity) and their scores on the psychological flourishing scale.
- The values of the correlation coefficients between the dimensions of the academic identity scale (diffused identity, moratorium identity, foreclosed identity, and achieved identity) and the total score of the psychological flourishing scale are (-0.489, -0.323, -0.543, 0.214), respectively, and all of these values are statistically significant at (0.01).

3.3 Testing the Third Hypothesis

The third hypothesis is developed as follows:

H3: "Academic passion as a mediating variable does not affect the relationship between academic identity and psychological flourishing among female students participating in the research ".

To test this hypothesis, path analysis was utilized and the normal distribution of data was verified. Besides, the fitness of the current research model was verified (fig.1), and the model parameters were estimated using the Maximum likelihood estimation (MLE) method. The model achieved a good fit, as the indicators of good fitness came as shown in

the following table.

Table 3: The goodness of fit statistics for the mediation model

The goodness of fit indices	Value	Acceptable value*
Chi-square	2.86	Chi-square/degrees of freedom < 3
Degrees of freedom	1	
Chi-square/degrees of freedom	2.86	
Tucker-Lewis Index (TLI)	0.966	NFI \geq 0.95
Comparative Fit Index (CFI)	0.992	CFI \geq 0.95
Root Mean Square Error of Approximation (RMSEA)	0.072	RMSEA < 0.08

Table (3) results indicate that the path model of the causal relationship between academic identity, academic passion, and psychological flourishing among the female students of the research sample achieved a good fit for the data, where the values fit indicators (Chi-Square/df= 2.86, CFI=0.992, TLI=0.966, RMSEA=0.072), which reported as goodness-of-fit indicators, indicating that the path model matches the data of the current study sample.

Accordingly, the null hypothesis is rejected and the alternative hypothesis is accepted " The path model of the causal relationships between academic identity, academic passion, and psychological flourishing achieves a good fit with the data obtained by the female students participating in the research".

3.3.1 Calculating the direct and indirect effects between the model variables

3.3.1.1 The direct effects of academic identity on the academic passion

The following table (4) presents the standard values and their statistical significance of the direct effects of the academic identity with its patterns (diffused - moratorium - foreclosed - achieved) on the academic passion with its components (harmonious - obsessive) among university students.

Table 4. The standardized values of the direct effects of academic identity on academic passion

Variables		Standardized direct effects	S.E.	Z value	P-Value
Diffused	→	-0.100	0.098	-1.280	0.201
Moratorium	→	-0.137	0.063	-2.807	0.005**
Foreclosed	→	-0.327	0.094	-4.037	0.000**
Achieved	→	0.114	0.079	2.504	0.012*
Diffused	→	0.059	0.075	0.994	0.320
Moratorium	→	0.216	0.090	3.124	0.002**
Foreclosed	→	0.096	0.072	1.554	0.120
Achieved	→	-0.401	0.083	-8.455	0.000**

Table (4) results indicate that there is a direct statistically significant effect of the patterns of the (moratorium, foreclosed, and achieved) academic identities on the harmonious passion dimension of academic passion, where the values of the standardized effect coefficients are (0.114, 0.327, -0.137) respectively, which are statistically significant as the significance level values were (0.005, 0.000, 0.012), respectively. It is also noted that there is a direct, statistically significant effect of the two patterns of academic identity (moratorium and achieved) on obsessive academic passion, where the values of the standardized effect coefficients are (0.216, -0.401) respectively, which are statistically significant as the significance level values were (0.000, 0.002), respectively.

3.3.1.2 The direct effects of academic identity on the psychological flourishing

The following table (5) presents the standard values and their statistical significance of the direct effects of the academic identity with its patterns (diffused - moratorium - foreclosed - achieved) in the psychological flourishing among university students.

Table 5. The standardized values of the direct effects of academic identity on the psychological flourishing

Variables		Standardized direct effects	S.E.	Z value	P-Value
Diffused	→	-0.139	0.078	-2.218	0.026*
Moratorium	→	-0.018	0.077	-0.376	0.707
Foreclosed	→	-0.340	0.150	-3.293	0.001**
Achieved	→	0.071	0.098	1.561	0.119

The results of table 5 illustrate that there is a direct statistically significant effect of the (diffused and foreclosed) academic identity patterns on the variable of psychological flourishing, where the values of the standardized effect coefficients are (-0.139, 0.340) respectively, which are statistically significant as the significance level values were (0.026- 0.001), respectively.

3.3.1.3. *The direct effects of academic passion on the psychological flourishing*

The following table (6) presents the standard values and their statistical significance of the direct effects of academic passion and its dimensions (harmonious and obsessive) on the psychological flourishing among university students.

Table 6. The standardized values of the direct effects of academic passion on psychological flourishing

Variables	Standardized direct effects	S.E.	Z value	P-Value
Harmonious Passion → Psychological Flourishing	0.202	0.066	3.789	0.000**
Obsessive Passion → Psychological Flourishing	-0.107	0.048	-2.746	0.006**

The results of table 6 illustrate that there is a direct statistically significant effect of the (harmonious and obsessive) academic passion on the variable of psychological flourishing, where the values of the standardized effect coefficients are (0.202, -0.107) respectively, which are statistically significant as the significance level values were (0.000, 0.006), respectively.

3.3.1.4. *The indirect effects of academic identity on the psychological flourishing*

The following table (7) presents the standard values and their statistical significance of the indirect effects of the academic identity with its patterns (diffused - moratorium - foreclosed - achieved) on the psychological flourishing among university students.

Table 7. The indirect effects of the mediation model

Variables	Standardized indirect effects	S.E.	Z value	P-Value
Academic Identity on Psychological Flourishing via Harmonious Passion				
Diffused	-0.020	0.016	-1.235	0.217
Moratorium	-0.028	0.013	-2.184	0.029*
Foreclosed	-0.066	0.024	-2.711	0.007**
Achieved	0.023	0.010	2.194	0.028*
Academic Identity on Psychological Flourishing via Obsessive Passion				
Diffused	-0.006	0.007	-0.882	0.378
Moratorium	-0.023	0.011	-2.051	0.040*
Foreclosed	-0.010	0.008	-1.225	0.221
Achieved	0.043	0.017	2.535	0.011*

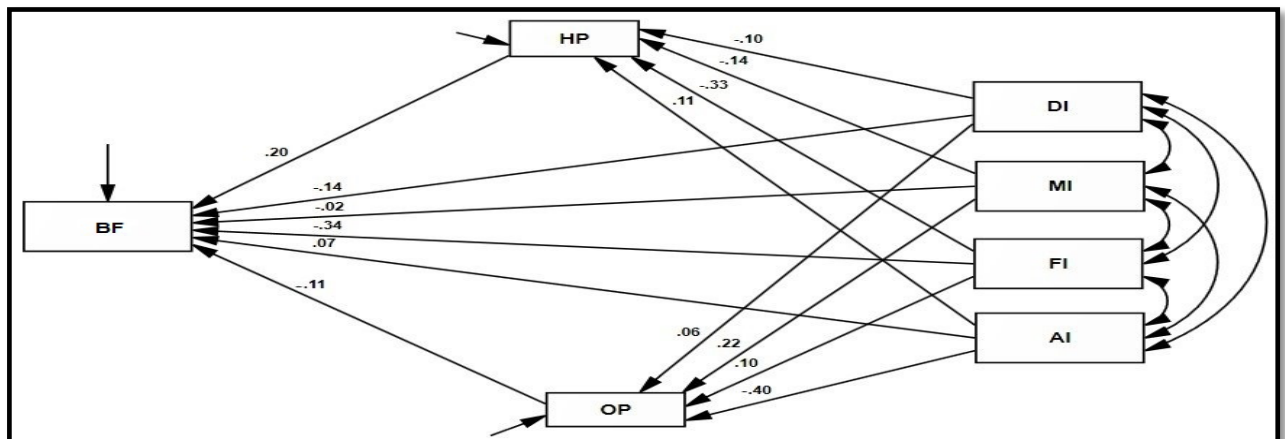


Fig. 1. The Study model with standardized estimates

Table (7) results indicate that:

- There is a statistically significant indirect negative effect of the (moratorium and foreclosed) patterns of academic identity and a positive effect of the (achieved) identity pattern on the psychological flourishing variable through the dimension of academic harmonious passion, where the values of the standardized effect coefficients are (-0.028,

-0.066, 0.023) respectively, which are statistically significant as the significance level values were (0.029, 0.007, 0.028), respectively.

- There is a statistically significant indirect negative effect of the (moratorium) pattern of academic identity and a positive effect of the (achieved) identity pattern on the psychological flourishing variable through the dimension of academic obsessive passion, where the values of the standardized effect coefficients are (-0.023, 0.043) respectively, which are statistically significant as the significance level values were (0.040, 0.011), respectively.

4 Discussion

The findings of the first hypothesis indicated a statistically significant positive correlation between the scores of the research sample students on the academic identity scale and academic passion scale. This result is consistent with the results of various previous studies, which reported a positive correlation between the achieved academic identity and harmonious passion, a negative correlation with possessive passion, a negative correlation between the moratorium, foreclosed and diffused academic identity and harmonious academic passion, and a positive correlation between them and the obsessive passion [28, 29, 37].

The positive relationship between achieved academic identity and harmonious passion and the negative correlation between achieved identity and obsessive passion may be attributed to the traits of the students of the achieved identity. They have high exploration and deep conscious assessment of their academic assignments and goals. They also adhere to the system of values and beliefs that are compatible with them. They have self-confidence when making decisions and the ability to adapt when resolving conflicts, work effectively under pressure, integrate into university work, participate in educational tasks, and adapt effectively to university life. Hence, these characteristics of achieved identity are associated with the positive feelings of practicing, enjoying, and continuing the academic task, contributing to the development of the students' harmonious passion and the reduction of obsessive passion. Oyserman & Destin [48] emphasized that students with an achieved identity tend to persist and engage longer in challenging tasks because they find them meaningful. However, students with obsessive passion engage in activities without desire, as they strive to achieve goals they are forced to.

The negative relationship between academic identity (diffused - moratorium - foreclosed) and the harmonious passion and the positive relationship between them and obsessive passion was illustrated in light of the students in the three identity patterns lack the exploration or commitment dimension of identity. They also feel a low independence level and decision-making ability, which leads them to high levels of obsessive passion and low levels of harmonious passion. Nevertheless, students of diffused identities are indifferent and have poor adjustment. They do not integrate into their academic tasks, while those with moratorium identities have an insufficient commitment to duties and activities, feel anxious and dissatisfied with studying, and face various pressure, and those with foreclosed identities are closed-mindedness and dependent. They are committed to values and goals that have been set for them by others without exploring them.

These traits force students to practice academic tasks without enjoyment and continuity, generating a high level of obsessive passion and a low level of harmonious passion. In this regard, Bouizegarene et al. [37] illustrated that the dualistic passion model hypothesized that when the activity becomes a part of an individual, identity patterns will be predictors of passion. They also emphasized that the achieved identity and harmonious passion are correlated positively and that different identity processing patterns contribute to various kinds of passion.

Findings of the second hypothesis indicated a positive correlation between achieved identity and psychological flourishing variables (psychological well-being, happiness, and psychological adjustment) and a negative correlation between the (diffused - moratorium - foreclosed) identity patterns and psychological flourishing. This result agrees with previous studies [7, 13, 38, 39].

The positive relationship between achieved academic identity and psychological flourishing can be attributed to the achieved identity students' traits as they seek to solve the identity crisis positively, which leads them to a happier life. They also can form social relationships efficiently and accept themselves and others, contributing to feelings of familiarity and a sense of psychological adjustment. They can adapt and work effectively with pressures. Hence, these features associated with the achieved identity contribute to the development of positive feelings related to public and university life, the establishment of positive relationships, and a sense of life meaning, all of which are among the definitions of psychological flourishing. Consequently, academic identity is one of the variables that contribute to positive feelings and the achieved identity has contributed to the development of psychological flourishing. Cakir [49] emphasized that identity is a positive predictor of all dimensions of quality of life.

The negative relationships between the (diffused – moratorium – foreclosed) academic identity and psychological flourishing may be due to the traits of such students. The students with diffused identities suffer from poor adjustment

and inability to adapt to university life. Students of moratorium identity seem anxious, pressured, and dissatisfied with studying and live in a state of hesitation and uncertainty. In addition, students with a foreclosed identity are dependent, dispersed, and have obstacles in solving the problems they face under pressure, which affect their sense of self-flourishing. They are traits that contribute to negative feelings towards public and academic life. Hence, there is a direct negative effect of the decreased psychological flourishing on higher patterns of academic identity (diffused - moratorium - foreclosed). Regarding this, Dastjerdi et al. [13] indicated that identity (diffused - moratorium - foreclosed) is negatively associated with some dimensions of psychological well-being. Besides, Sepahvandi et al. [39] found that diffused identity is negatively related to psychological well-being.

The findings of the third hypothesis illustrated that academic passion mediates the relationship between academic identity and psychological flourishing among the research sample. In particular, there were negative effects for academic identity patterns (foreclosed and moratorium) on harmonious passion, while the effects were positive and statistically significant for the (achieved) identity pattern. Besides, there are direct positive statistically significant effects for the academic identity patterns (foreclosed and moratorium) on obsessive passion, while the effects were negative and statistically significant for the (achieved) pattern. This result is consistent with the results of various previous studies [28, 29, 37].

The psychological traits of students in the foreclosed and moratorium patterns lead them to withdraw from academic tasks and academic reluctance. They are dissatisfied, feel psychological pressure when practicing their duties, and have a weakness in making decisions. This negatively affects their harmonious passion and positively obsessive passion. Moreover, Bouizegarene et al. [37] showed that the dualistic model of passion assumed that activity is a part of an individual's identity, that identity integration, and identity patterns are associated with passion, and that identity processes are central determinants of passion.

Besides, results indicated direct effects of academic passion on psychological flourishing. In particular, there were positive direct effects of harmonious passion on psychological flourishing and statistically significant negative direct effects of obsessive passion on psychological flourishing. This result agrees with the results of previous studies [16, 28, 41, 42]. This result may be explained in light of the relationship between harmonious passion and students' positive feelings that increase their happiness and achievement. This emotional state prevents negative feelings and helps them to encounter academic pressures and problems efficiently. In this regard, Bernabé et al. [44] informed that harmonious passion is positively related to positive emotions (well-being), and obsessive passion is negatively related to them. Abdelaziz & Ayoub [42] also revealed a direct positive effect of harmonious academic passion on psychological flourishing.

In addition, results revealed direct effects of academic identity on psychological flourishing, as there were statistically significant negative direct effects of the identity patterns (diffused and foreclosed) and psychological flourishing. This result is consistent with the results of various previous studies [7, 10, 13, 38, 39]. This result is attributed to the traits of the students with diffused identities. They tend to be random and unable to adapt to life. Students with foreclosed identity also have weak personalities and lack self-confidence. They adopt the rules, laws, choices, and beliefs of others and are closed-minded, distracted, and stressed at work. Hence, this reflects negatively and directly on their sense of psychological flourishing and causes a rise in patterns of academic identity (diffused and foreclosed). Dastjerdi et al. [13] indicated that the foreclosed and diffused identities are negatively related to some dimensions of psychological well-being.

Regarding the indirect effects of academic identity on psychological flourishing, results indicated that there were negative indirect effects of the (foreclosed and moratorium) identity patterns on the psychological flourishing variable through the dimension of (harmonious passion), while the indirect effects were positive and statistically significant for the (achieved) identity pattern. Besides, there were negative indirect effects of the (moratorium) identity pattern on the psychological flourishing variable through the dimension of (obsessive passion), while the indirect effects were positive and statistically significant for the (achieved) identity pattern. This result is consistent with the previous study results [44, 45, 46].

The previous relationship between patterns of academic identity and psychological flourishing and the mediating role of academic passion can explain this result. Achieved identity plays a role in harmonious passion as a result of the similarity between some characteristics of female students with harmonious passion and achieved identity. Both focus on academic tasks and continue in them without getting bored, work with self-motivation and enjoyment, and are aware of their goals and tasks. Also, the positive relationship between them may establish the possibility of an indirect influence on the achieved identity in psychological prosperity through harmonious passion. Lajom et al. [40] indicated that harmonious passion leads to the integration of the importance of work into the identity of the individual, then it is in harmony with other aspects of his life, and they are indicators of self-satisfaction in general. Furthermore, Sverdlik,

Rahimi & Vallerand [43] pointed out the role of harmonious passion in developing a sense of alignment, self-regulation, and well-being among university students. As well as the study by Yukhymenko-Lescroart & Sharma [7] showed that harmonious passion positively contributed to life satisfaction, subjective happiness, and goal awareness, and obsessive passion for work did not contribute to goal awareness.

In contrast, there is a similarity between the characteristics of female students with obsessive passion and moratorium academic identity. They cannot comprehend their academic work as part of their identity and they do not have a conscious assessment of their academic tasks and goals and feel bored and misaligned. The relationship between them may also establish the possibility of negative indirect influence of the moratorium identity on psychological flourishing through obsessive passion. Bernabé et al. [44] showed that identity has an indirect effect on the positive feelings (well-being) of university students through passion and that the dimensions of harmonious and obsessive passion differ in the mediating effect on positive feelings (well-being). The achieved academic identity is one of the variables that contribute to positive feelings and the development of psychological prosperity. Furthermore, identity is an element of passion, and different identity processing techniques lead to the emergence of different types of passion, and both identity and passion contribute to life satisfaction [14, 16].

5 Conclusion

The current research adds a new perspective to the relationship between academic identity, academic passion, and university students' psychological flourishing. It contributes to the theoretical and practical discourse on these variables. Results demonstrate that there was a statistically significant positive correlation between the scores of the research sample students on the academic identity scale and academic passion scale, a positive correlation between achieved identity and psychological flourishing variables (psychological well-being, happiness, and psychological adjustment) and a negative correlation between the (diffused - moratorium - foreclosed) identity patterns and psychological flourishing. Besides, the results illustrated that academic passion mediates the relationship between academic identity and psychological flourishing among the research sample. In particular, there were negative effects for academic identity patterns (foreclosed and moratorium) on harmonious passion, while the effects were positive and statistically significant for the (achieved) identity pattern. Besides, there are direct positive statistically significant effects for the academic identity patterns (foreclosed and moratorium) on obsessive passion, while the effects were negative and statistically significant for the (achieved) pattern.

Recommendations and Further Research

- Hold training workshops to develop female students' awareness of the achieved academic identity and academic passion.
- Employ curricula, teaching methods, and educational guidance for university students to support their psychological needs of students and enhance their achieved academic identity, academic passion, and psychological prosperity.
- Training faculty members to share their ideas with students, listen to them, and help them relieve academic pressures that make them feel the obsessive passion and a low level of psychological prosperity.
- Encourage researchers to conduct more studies and scientific research based on the structural modeling method to reach a deeper understanding of the study of academic identity, academic passion, and psychological flourishing with many psychological and social variables such as psychological hardiness and family economic and social characteristics.
- Conducting more in-depth clinical research to reveal the personality dynamics of high and low academic identity and academic passion.
- Researching male university students in the same variables investigated in the current research.
- Preparing counseling programs for the development of academic passion, academic identity, and psychological flourishing among university students.

Acknowledgment

We would like to thank the Deanship of Scientific Research at Prince Sattam Bin Abdulaziz University, Kingdom of Saudi Arabia for supporting human research in English.

Conflict of interest

The authors declare that there is no conflict regarding the publication of this paper.

References

- [1] Leary, M. R., Tate, E. B., Adams, C. E., Batts Allen, A., & Hancock, J. Self-compassion and reactions to unpleasant self-relevant events: the implications of treating oneself kindly. *Journal of Personality and Social Psychology*, **92**, 887-904, (2007). <https://doi.org/10.1037/0022-3514.92.5.887>
- [2] Diener, E., Wirtz, D., Tov, W., Kim-Prieto, C., Choi, D., Oishi, S., & Biswas-Diener, R. New well-being measures: Short scales to assess flourishing and positive and negative feelings. *Social Indicators Research*, **97**, 143–156, (2010). <https://doi.org/10.1007/s11205-009-9493-y>
- [3] Huppert, F. A., & So, T. T. Flourishing across Europe: Application of a new conceptual framework for defining well-being. *Social indicators research*, **110**, 837- 86, (2013). <https://doi.org/10.1007%2Fs11205-011-9966-7>
- [4] Knoesen, R., & Naudé, L. Experiences of flourishing and languishing during the first year at university. *Journal of Mental Health*, **27**, 269-278, (2018). <https://doi.org/10.1080/09638237.2017.1370635>
- [5] Kent, B., Henderson, W., Bradshaw, M., Ellison, C., & Wright, B. Do Daily Spiritual Experiences Moderate the Effect of Stressors on Psychological Well-being? A Smartphone-based Experience Sampling Study of Depressive Symptoms and Flourishing. *The International Journal for the Psychology of Religion*, **1**, 1-6, (2020). <https://doi.org/10.1080/10508619.2020.1777766>
- [6] Zhang, M. X., Yang, H. M., Tong, K. K., & Wu, A. M. The prospective effect of purpose in life on gambling disorder and psychological flourishing among university students. *Journal of Behavioral Addictions*, **9**, 756-765, (2020). <https://doi.org/10.1556/2006.2020.00046>
- [7] Sharma, D., & Chandiramani, K. Impact of identity process on psychological wellbeing of adolescents. *The International Journal of Indian Psychology*, **9**, 1-19, (2021). DOI: 10.25215/0901.082
- [8] Lotfy, A. Academic identity and its relationship to some psychological variables among university students. *Journal of the College of Education, Al-Azhar University*, **2**, 267 – 339, (2021).
- [9] Al-Hamaidi, H., & Al-Balushi, B. Psychometric properties of the Identity Development Dimensions Scale (DIDS) in the Gulf environment on a sample of students from Sultan Qaboos University and Kuwait University. *Journal of Educational and Psychological Studies, Sultan Qaboos University*, **12**, 147-162, (2018).
- [10] Luyckx, K., Klimstra, T., Duriez, B., Schwartz, S., & Vanhalst, J. Identity processes and coping strategies in college students: short-term longitudinal dynamics and the role of personality. *Journal Youth Adolescence*, **41**, 1226-1239, (2012).
- [11] Al Saadi, R. Identity crisis and its relationship to life satisfaction among Palestinian university youth in Israeli universities (Haifa University as a model). *An-Najah University Journal of Research, Humanities*, **32**, 1285-1316, (2018).
- [12] Abdi, A., & Zandipayam, A. Prediction of academic performance based on dimensions of academic identity and flourishing among students of the University of Medical Sciences. *Journal of Medical Education Development*, **12.**, 19-26, (2019). <http://dx.doi.org/10.29252/edcj.12.35.19>
- [13] Dastjerdi, R., Farshidfar, Z., & Haji-abadi, M. Academic identity status and psychological well-being among medical sciences students. *Future of Medical Education Journal*, **12.**, 41-45, (2022). <https://dx.doi.org/10.22038/fmej.2022.51357.1378>
- [14] Vallerand, R. J., Blanchard, C., Mageau, G. A., Koestner, R., Ratelle, C., Léonard, M., ... & Marsolais, J. Les passions de l'ame: on obsessive and harmonious passion. *Journal of personality and social psychology*, **85**, 756—767, (2003). <https://doi.org/10.1037/0022-3514.85.4.756>
- [15] Lyubomirsky, S., King, L., & Diener, E. The benefits of frequent positive affect: Does happiness lead to success? *Psychological bulletin*, **131**, 803, (2005). <https://psycnet.apa.org/doi/10.1037/0033-2909.131.6.803>
- [16] Vallerand, R. J. *The psychology of passion: A dualistic model*. Series in Positive Psychology. New York: Oxford, (2015).
- [17] Castillo, I., Álvarez, O., Esteva, I., Queralt, A., & Molina-García, J. Passion for teaching, transformational

- leadership and burnout among physical education teachers. *Revista de psicología del deporte*, **26**, 57-61, (2017).
- [18] Briki, W. Passion, trait self-control, and wellbeing: Comparing two mediation models predicting wellbeing. *Frontiers in Psychology*, **8**, 841, (2017). <https://doi.org/10.3389/fpsyg.2017.00841>
- [19] Ruberman, L. Challenges in the transition to college: The perspective of the therapist back home. *American Journal of Psychotherapy*, **68**, 103-115, (2014). <https://doi.org/10.1176/appi.psychotherapy.2014.68.1.103>
- [20] Evans, D., Borriello, G. A., & Field, A. P. A. Review of the academic and psychological impact of the transition to secondary education. *Frontiers in Psychology*, **9**, 1-18, (2018). <https://doi.org/10.3389/fpsyg.2018.01482>
- [21] Sürücü, L., Ertan, Ş. S., Bağlarbaşı, E., & Maslakçı, A. COVID-19 and human flourishing: The moderating role of gender. *Personality and Individual Differences*, **183**, 1-6, (2021). <https://doi.org/10.1016/j.paid.2021.111111>
- [22] Marcia, J. *Identity in Adolescence*. In J. Adelson (Ed.), *Handbook of Adolescent Psychology*. New York: Wiley, (1980).
- [23] Welch, O. & Hodges, C. *Standing outside on the inside: Black adolescents and the construction of academic identity*. Albany, NY: State University of New York Press, (1997).
- [24] DeCandia, G. M. *Relationships between academic identity and academic achievement in low-income urban adolescents*. Doctoral dissertation, Rutgers University-Graduate School of Applied and Professional Psychology, (2014).
- [25] Marcia, J. *The relational roots of identity*. In J. Kroger (Ed.), *Discussions on ego identity* (pp. 101– 120). Hillsdale, NJ: Lawrence Erlbaum Associates, (1993).
- [26] Marcia, J. E. Adolescence, identity, and the Bernardone family. *Identity: An international journal of theory and research*, **2**, 199-209, (2002). https://psycnet.apa.org/doi/10.1207/S1532706XID0203_01
- [27] Was, C. & Isaacson, R. The Development of a Measure of Academic Identity Status. *Journal of Research in Education*, **18**, 94-105, (2008).
- [28] Yukhymenko-Lescroart, M. A., & Sharma, G. Passion for work and well-being of working adults. *Journal of Career Development*, **49**, 505-518, (2022). <https://doi.org/10.1177/0894845320946398>
- [29] Yukhymenko-Lescroart, M. A. Sport-to-school spillover effects of passion for sport: The role of identity in academic performance. *Psychological Reports*, **125**, 1469-1493, (2022). <https://doi.org/10.1177/00332941211006925>
- [30] Vallerand, R. J., Salvy, S. J., Mageau, G. A., Elliot, A. J., Denis, P. L., Grouzet, F. M., & Blanchard, C. On the role of passion in performance. *Journal of personality*, **75**, 505-534, (2007). <https://doi.org/10.1111/j.1467-6494.2007.00447.x>
- [31] Zigarmi, D., Nimon, K., Houson, D., Witt, D., & Diehl, J. Beyond engagement: Toward a framework and operational definition for employee work passion. *Human Resource Development Review*, **8**, 300-326, (2009). <http://dx.doi.org/10.1177/1534484309338171>
- [32] Curran, T., Hill, A. P., Appleton, P. R., Vallerand, R. J., & Standage, M. The psychology of passion: A meta-analytical review of a decade of research on intrapersonal outcomes. *Motivation and Emotion*, **39**, 631-655, (2015). <https://doi.org/10.1007/s11031-015-9503-0>
- [33] Ho, V. T., & Astakhova, M. N. Disentangling passion and engagement: An examination of how and when passionate employees become engaged ones. *Human Relations*, **71**, 973-1000, (2018). <https://doi.org/10.1177/0018726717731505>
- [34] Diener, E., & Diener, C. *Positive psychology as social change*. USA; the gallup organization, Washington, DC, USA: Springer Science Business Media, (2011).
- [35] Seligman, M. *Flourish: A visionary new understanding of happiness and well-being*. New York: Free Press, (2011).
- [36] Schinkel, A. *Wonder, Education, and Human flourishing theoretical, empirical, and practical perspectives*. Amsterdam the Netherlands: VU University Press, (2020).
- [37] Bouzegarene, N., Bourdeau, S., Leduc, C., Gousse-Lessard, A. S., Houlfort, N., & Vallerand, R. J. We are our passions: The role of identity processes in harmonious and obsessive passion and links to optimal functioning in society. *Self and Identity*, **17**, 56-74, (2018).

- [38] Berzonsky, M. D., & Papini, D.R. Cognitive Reasoning, Identity Components, and Identity Processing Styles. *An International Journal of Theory and Research*, **15**, 74-88, (2015). <http://dx.doi.org/10.1080/15283488.2014.989444>
- [39] Sepahvandi, M. A., Simin, A., & Farokhzadian, A. A. The Relationship between Identity Styles and Psychological Wellbeing in Sample of College Students. *Mediterranean Journal of Social Sciences*, **7**, 207-207, (2016). <http://dx.doi.org/10.5901/mjss.2016.v7n3s3p207>
- [40] Lajom, J. A. L., Amarnani, R. K., Restubog, S. L. D., Bordia, P., & Tang, R. L. Dualistic passion for work and its impact on career outcomes: Scale validation and nomological network. *Journal of Career Assessment*, **26**, 631-648, (2018). <https://doi.org/10.1177%2F1069072717723096>
- [41] Vallerand, R. J., Rousseau, F. L., Grouzet, F. M., Dumais, A., Grenier, S., & Blanchard, C. M. Passion in sport: A look at determinants and affective experiences. *Journal of Sport and Exercise Psychology*, **28**, 454-478, (2006). <https://psycnet.apa.org/doi/10.1123/jsep.28.4.454>
- [42] Abdulaziz, A., & Ayoub, S. Modeling causal relationships between academic advancement, family communication patterns, optimal personality goals, academic passion, and psychological well-being in high school students. *Educational Journal, Sohag University*, **95**, 900 – 1007, (2021).
- [43] Sverdlik, A., Rahimi, S., & Vallerand, R. J. Examining the role of passion in university students' academic emotions, self-regulated learning and well-being. *Journal of Adult and Continuing Education*, **0**, 1-23, (2021). <https://doi.org/10.1177%2F14779714211037359>
- [44] Bernabé, M., Lisbona, A., Palací, F. J., & Martín-Aragón, M. Social identity, passion and well-being in university students, the mediating effect of passion. *The Spanish Journal of Psychology*, **17**, 1-8, (2014). <https://doi.org/10.1017/sjp.2014.85>
- [45] Bouizegarene, Nabil & Gousse-Lessard, Anne-Sophie & Leduc, Caroline & Bourdeau, Sarah & Vallerand, Bob & Houlfort, Nathalie. *The Mediating Role of Passion in the Identity-Life Satisfaction Relationship*. Conference: 8th Self Conference, Kiel, Germany, (2015).
- [46] El Dabe, F. Self-transcendence, passion, and neurotic perfectionism as predictors of self-satisfaction at work among kindergarten teachers. *Educational Journal, Sohag University*, **63**, 27 – 97, (2019).
- [47] Kline, R. B. *Principles and practice of structural equation modeling*. Guilford publications. (2015).
- [48] Oyserman, D., & Destin, M. Identity-based motivation: Implications for intervention. *The Counseling Psychologist*, **38**, 1001–1043, (2010). <https://doi.org/10.1177%2F0011000010374775>
- [49] Cakir, S. G. Ego identity status and psychological well-being among Turkish emerging adults. *Identity*, **14**, 230-239, (2014). <https://doi.org/10.1080/15283488.2014.921169>