



Research article

Identity development among Lebanese youth: An investigation of Marcia's paradigm

Nadya Kaddoura[†], Ketty M. Sarouhim^{*}

Lebanese American University, Lebanon



ARTICLE INFO

Keywords:

Identity development
Gender differences
Academic achievement
Emerging adulthood
Psychology

ABSTRACT

The purpose of this study was to investigate Marcia's ego identity paradigm in a sample of Lebanese youth. Another purpose was to examine correlates to identity statuses, namely gender and academic achievement. The sample consisted of 255 students, 18–21 years old, selected randomly from one university in Lebanon. The Ego Identity Process Questionnaire (EIPQ) was used to measure participants' level of Exploration and Commitment, and accordingly, classify them into one of Marcia's four Ego Identity Statuses: Achievement, Moratorium, Foreclosure, and Diffusion. Also, participants' self-reported cumulative grade point average (GPA) served as achievement data. The results showed that most participants were in either Foreclosure (29.41%) or Moratorium (29.02%). No significant gender or academic differences were found across the statuses. In future research, factors such as family structure, war, and political instability that might affect individuals' identity statuses must be investigated using larger and more representative samples.

1. Introduction

For many decades, identity formation has been a focus of research in the fields of social sciences and humanities (Erikson, 1968; Kroger and Marcia, 2011; Marcia, 1966; Sarouhim and Issa, 2017). As individuals reach adolescence, they typically begin to reflect on their beliefs, values and life goals. This transitional stage may be a period of change and challenge and is often governed by feelings of anxiety and instability introduced by cognitive, social, and physical changes (Brinthaupt and Lipka, 2002; Erikson, 1968). According to Erikson (1968), the stage of “identity achievement vs role confusion” occurs in adolescence and constitutes a milestone in development. He argued that identity is formed when individuals revise their childhood identifications, a process that leads inevitably to crisis. Adolescents who develop an integrated and coherent set of ideals in harmony with their current sense of self and the world achieve a well-defined identity. Conversely, failure to achieve ego synthesis and continuity of a personal character leads to identity confusion.

Post Erikson, the developmental psychologist James Marcia (1966) operationalized Erikson's identity concept and developed it into an empirically-based model termed the Identity Status Paradigm (Marcia, 1980), which is the focus of the current study. According to Luyckx et al.

(2013), the importance of Marcia's model is that it could capture individual differences during the identity formation process, particularly in the absence of a distinct identity pathway that fits all adolescents. Thus, Marcia (1966) model has focused on the development of a personal identity during adolescence, a unique self-constructed entity. In this model, identity is depicted as an inner self-structure that reveals an individual's ideals, opinions, capabilities, and personal history in several fields of life, such as career, religion, and sex-role. This structure is shaped by two dimensions: crisis (later renamed exploration) and commitment. Marcia (1966) regarded crisis as a period of turmoil during which an individual's values and choices are reassessed. On the other hand, commitment is about the resolution of this crisis through finding answers and committing to values, vocation, and career choices.

Marcia (1980) described four methods of dealing with identity development: Identity Achievement, Foreclosure, Moratorium, and Diffusion; he referred to each of the four strategies as an Ego Identity Status. These statuses represent individual styles of addressing the psychosocial function of developing an ego identity. What determines these identity statuses is the level of exploration and commitment the adolescent has made to an identity in various life domains, such as vocation, religion, relationships, gender roles, education, and values (Marcia, 1993). Thus, adolescents with an Achieved identity have engaged in high

* Corresponding author.

E-mail address: ksarufim@lau.edu.lb (K.M. Sarouhim).

[†] Deceased.

exploration and made solid commitments whereas those with a Diffused identity may or may not have engaged in any exploration but are also unable or unwilling to make commitments. Adolescents in Foreclosure have made high commitments without much exploration. Finally, adolescents in Moratorium are currently in the process of exploring and experimenting with various commitments.

The current study explores Marcia (1966) identity paradigm among Lebanese youth. It also examines gender and academic achievement as correlates to identity statuses. This study took place in Lebanon, a small country in the Middle East where patriarchal norms dominate (Ayyash-Abdo and Alamuddin, 2007). Research on identity development is scarce in the country. The significance of this study is that it examines identity statuses in a traditional culture, which might reveal patterns different than those found in the West, as social and cultural influences play a significant role in identity formation (Marcia, 1980). Also, examination of the influences of the socio-political climate on identity development is timely, as the country enters its fourth decade of instability and turmoil. The latest events in the world, specifically the rise of extremist groups in the Middle East warrants research on the process of identity development among Arab youth to unveil societal influences unique to this part of the world, as preemptive measures against radical ideologies.

1.1. Research on Marcia's identity paradigm

Marcia's paradigm was extensively researched (e.g., Bergh and Erling, 2005; Head, 2002; Krettenauer, 2005; Njus and Johnson, 2008). Most studies have validated the model, but some have criticized it as failing to distinguish clearly between the statuses (Schwartz et al., 2011). Despite the criticisms, Marcia's paradigm has endured over time (Anderson, 2008).

Typically, in late adolescence and early adulthood, research on Marcia's paradigm revealed that individuals tend to be in the more advanced stages of identity development (Kroger and Marcia, 2011). Thus, college students, the population investigated in this study, show movement in identity in the direction of greater commitment (Kroger, 2012; Kroger, Martinussen, and Marcia, 2010). Similar results were obtained in a large study conducted on individuals between the ages of 12–20, in which the researchers found that participants tended to progress with age from the statuses of Diffusion and Moratorium to that of the more mature status of Achievement (Meeus, van de Schoot, Keijsers, Schwartz and Branje, 2010).

In the Arab world, research on identity development began to spark in the late 1980s and early 1990s. A large number of studies on a variety of identity-related areas, such as identity formation, ego identity and identity disorders saw light (Ahmed, 2010). Relevant to the current study, research that addressed Marcia's paradigm showed mostly a pattern similar to that found in the Western literature. For example, Megraya and Ahmed (2011) conducted a study on the identity statuses of 433 college students in Egypt and Kuwait, using an Arabic version of the Extended Objective Measure of Ego Identity Statuses-2 (EOMES-2). The results showed that the majority of participants were in Achievement and only a small number of students were in Foreclosure and Diffusion. Other studies on identity in the Arab world showed that psychosocial maturity correlated with moral development (Abdel-Moety as cited in Ahmed, 2010) and positive parenting with identity achievement (Al-Otaibi as cited in Ahmed, 2010).

A correlate to identity statuses investigated in this study is gender. Studies on gender differences in the statuses have yielded mixed results. In some, no significant differences in identity statuses were noted (Kumru and Thompson, 2003), but in others, males were found to be mostly in Moratorium or Achievement statuses whereas females were mostly in Foreclosure, particularly in rural areas and traditional cultures (Marcia, 1993). In more recent studies, the opposite pattern was found. For example, in a large study on identity achievement, Meeus et al. (2010) found that adolescent females tended to be in Moratorium and Achievement whereas adolescent males were mostly in Foreclosure and Diffusion.

Similar results were obtained in other countries, such as Turkey (Cakir and Ayden, 2005), Sweden (Bergh and Erling, 2005), and Greece (Solomontos-Kountouri and Hurry, 2008). Arab-related studies systematically showed significant differences between the two sexes in at least one of the four identity statuses. For example, Megraya and Ahmed (2011) found that Egyptian and Kuwaiti male college students were significantly more foreclosed than their female counterparts, but no gender differences were found in the other three identity statuses. In Lebanon, the only study conducted on Marcia's paradigm (Sarouphim and Issa, 2017) examined a sample of 429 adolescents whose ages ranged from 11 to 17 years. The results showed that females were mostly in Moratorium and males in Foreclosure, with the difference being statistically significant $\chi^2(3) = 20.40, p = .001$. Such results are compatible with Megraya and Ahmed (2011) findings and suggest that identity formation is greatly influenced by both the macro and micro environments.

With regards to academic achievement, the second correlate to Marcia's paradigm investigated in this study, research has consistently revealed that individuals in the two statuses of Foreclosure and Achievement outperform those in Moratorium and Diffusion (Berzonsky, 2004). For example, Lange and Byrd (2002) found that adolescents with advanced identities, like Foreclosure and Achievement, develop skills for academic success, whereas those with Diffused or Moratorium identities have poor study skills and poor academic performance. Similarly, Berzonsky (2004) argued that identity achievement improves adolescents' reasoning and their cognitive abilities. Along the same lines, Flores-Crespo (2007) stipulated that the identity status of an adolescent may affect his/her attitude towards school, quality of classroom behavior, and choice of vocation. Therefore, whether an adolescent achieves identity has an important influence, albeit indirectly, on his/her academic achievement (Sarouphim and Issa, 2017).

1.2. The Lebanese context

Identity development in Lebanese youth is a complex and intricate process. In addition to the challenges that accompany the phase of adolescence, young individuals in Lebanon are also forced to cope with religious divisions, unique political discord, and complicated cultural situations. According to Sarouphim (2011), the repetitive wars in the country have left on the people numerous physical, mental, psychological, and social adverse effects. During active combat, the Lebanese population has witnessed episodes of unpredictable eruptions of violence in the form of air strikes, street fights, bombings, and displacement; they also suffered the harsh consequences of the collapse of the economy, community establishments (e.g., schools and hospitals), and public facilities, such as shortage of water and power outage (Macksoud and Aber, 1996). At present, the country is still in a state of instability marked by political dissonance, armed fights and sectarian struggles, all of which may have detrimental effects on the youth (Sarouphim, 2010).

Ayyash-Abdo and Alamuddin (2010) attributed the sporadic political turbulence in Lebanon to the dominance of religious identity over national identity. Hence, religion in Lebanon has never been limited to its spiritual purpose; instead, it plays a significant role in determining and strengthening individuals' social and political affinities and, consequently, their values, beliefs, and identity development. Religion in Lebanon is "institutionalized such that each sect has its own courts, traditions, and social and economic organizations" (p. 268). Thus, secular courts that handle matters of individual and family rights do not exist in Lebanon; instead, there are religious courts that handle family matters, like marriage and divorce, birth or death, and inheritance (Salibi as cited in Soweid et al., 2004). At present, Lebanese people live "in a country with the largest religious diversity in the region – 17 religions... and on a territory that matches a religious membership – *cantonization* –: a village, a region or a district in a town can correspond to a religious community" (Rarrbo, 2009, p. 6).

According to Ghosn (2009), the Lebanese society is distinguished by its "complex socio-cultural and political diversity" (p. 72) and the

presence of a cultural blend of western and Arab values. The impact of this blend may be seen in the Lebanese population in the form of a combination of individualism orientation adopted from the west and collectivism orientation originally present in the Lebanese culture (Ayyash-Abdo as cited in Ghosn, 2009). Lustig and Koester (as cited in Ghosn, 2009) argued that in societies characterized by a collectivist orientation, the welfare of the group takes priority over that of the individual. Hence, importance is not given to the individual but rather to togetherness and social bonds. As such, it is evident that in the Lebanese society, family bonds and “family traditional kinship attachments” are strongest, and the “individuals’ loyalty to their families is optimal” (Ayyash-Abdo as cited in Ghosn, 2009, p. 506). Therefore, contrary to the youth in the West who value their independence and identify with peers, Lebanese youth show significant loyalty to their families, country and sect (Issam Fares Institute for Public Policy and International Affairs American University of Beirut, 2010). In the same vein, studies on the social fabric in Lebanon have determined that the Lebanese people regard family as the most important social institution, regardless of their gender or religious affiliation (Faour, as cited in Ayyash-Abdo et al., 2009). In one study, Kazarian (2005) found that the Lebanese nuclear and extended family impose on their members demands of conformity, loyalty, self-sacrifice, and preservation of family honor. Young people internalize these values and feel obligated to adopt and defend them.

In the same vein, Rarrbo (2009) stipulated that young people in Lebanon grow to be rather dependent individuals with no distinct identity of their own because they are raised and seen as only members of a greater denominational community. Rarrbo (2009) also postulated that “Families give youth a status of young people in training, becoming open to modernity and to foreign languages but with limits, the ones of community frontiers” (p. 14). In addition, Nammour (2007) posited that Lebanese youth shift between three conflicting identity establishments: religious, national and supra-national and can be either Islamic, Arabic, or occidental. Thus, the Lebanese youth may experience conflicting feelings about their identity. On the one hand, they feel compelled to embrace global values made available to them through international networks and mass media and on the other hand, they care about preserving their Arab traditions. In sum, researchers seem to agree that the Lebanese youth have their loyalty first and foremost to their families, their country and their religious sects, but are not immune to the outside influences of the West (Issam Fares Institute for Public Policy and International Affairs American University of Beirut, 2011). It is not known, however, to what extent these contradictions might impact the adolescents’ identity statuses.

Furthermore, Lebanon is a patriarchal society where male births are preferred over female births, and males receive more privileges and special treatment than females who are seen as individuals in need of help and care (Ayyash-Abdo et al., 2009). Thus, males enjoy more opportunities to experiment and explore during the adolescence stage. This discrimination in gender, however, does not seem to apply to all domains in the Lebanese society. According to a United Nations Development Program (UNDP) report, gender inequality in Lebanon did not lead to gender differences in basic education between males and females (Ayyash-Abdo et al., 2009). Hence, Lebanese parents place equal importance on the education of their sons and daughters.

Ayyash-Abdo (2007) claimed that the awareness of the importance of the transitional period of adolescence is still at a preliminary stage among the Lebanese community. According to Shaar (2013), adolescents are a vulnerable group, particularly those youth who face war adversities. She argued that traumatized adolescents might find consolation in alcohol, substance abuse, and/or through antisocial behavior. They also might display learning and academic problems. This is of significance in Lebanon because most adolescents have witnessed at one point or another traumatizing atrocities due to the repetitive wars witnessed in the country. In addition, not much support is provided to the youth in terms of governmental resources. In this respect, Rarrbo (2009) stipulated that the needs of Lebanese adolescents with regard to “autonomy, support to training, job search, health, housing, information and citizenship involvement” (p. 24)

are not being met due to the absence of a comprehensive governmental plan or youth policies in general. In one study on life satisfaction, Ayyash-Abdo and Alamuddin (2010) found that Lebanese youth suffered from low levels of subjective well-being due to the hardships of their daily life experienced in the forms of unemployment, migration, poverty, and societal and economic inequality. In sum, it is not known to what extent adverse circumstances have affected and continue to affect the process of identity development in Lebanese youth. Thus, this study has shed light on one aspect of identity formation, that is, the ego strategies that Lebanese youth adopt in constructing and structuring their identities.

1.3. Hypotheses

Based on the review of literature and the context of this study, the following hypotheses were postulated:

Hypothesis 1. In late adolescence, a progression occurs towards the more advanced statuses (Marcia, 1993; Meeus et al., 2010). Accordingly, a significantly higher proportion of participants will be classified in the advanced statuses of Moratorium, Achievement, and Foreclosure than in the Diffusion status.

Hypothesis 2. In line with recent research on gender differences in the identity statuses (e.g., Meeus et al., 2010; Sarouphim and Issa, 2017) a significantly higher proportion of female participants will be classified in the Moratorium and Achieved identity statuses.

Hypothesis 3. Youth in the more advanced statuses have better study habits and higher academic achievement (Berzonsky, 2004; Lange and Byrd, 2002). Accordingly, there will be significant differences in academic achievement across the identity statuses, with the highest academic achievement scores corresponding to the Achieved Identity Status and the lowest academic achievement corresponding to the Diffusion Identity Status.

2. Method

2.1. Participants

A purposive and small sample was used for this study to assess the adequacy of conducting such research, as studies on identity development are scarce in the country. The sample consisted of 255 college students (111 males and 144 females) pursuing undergraduate studies in various majors and selected randomly from one university with campuses located in major cities in Lebanon, with the main campus being in Beirut, the capital. The university was selected based on its accessibility for data collection. Participants were all Lebanese citizens or residing in Lebanon, from middle to upper socio-economic status as evidenced by the university tuition fees and their place of residence. Participants’ age ranged from 18 to 21 years, with a mean of 20 (SD = 0.95). A large percentage of participants (42.3%) were in their second year of college (sophomore), with only a few students in their first year (freshmen), and about half in either their third year (junior) or fourth and last year of college (senior) (See Table 1).

2.2. Procedure and instruments

To determine the participants’ identity statuses, all were administered the Ego Identity Process Questionnaire (EIPQ; Balistreri et al.,

Table 1

Participants’ gender and class distribution.

Gender	Frequency	Percent	Valid Percent	Cumulative Percent
Male	111.00	43.53	43.53	43.53
Female	144.00	56.47	56.47	56.47
Freshmen	16	6.27	6.27	6.27
Sophomore	108	42.35	42.35	42.35
Junior	61	23.92	23.92	23.92
Senior	70	27.45	27.45	27.45
Total	255.00	100.00	100.00	100.00

1995). The instrument consists of 32 items, divided equally among the two Exploration and Commitment subscales. The items are answered on a 5-point Likert-type scale ranging from *Strongly Agree* to *Strongly Disagree*, and ordered randomly across eight domains, which are: Occupation, Religion, Politics, Values, Family, Friendships, Dating and Sex Roles. An Arabic translation of the EIPQ was prepared by a language expert and made available to the participants, but none chose to take the Arabic version, probably because English is the language of instruction at the university from which the participants were recruited and all participants were proficient in English.

Following the administration of the EIPQ, participants received one score on each of the Exploration and Commitment subscales by summing up their scores on all the 16 items in each subscale. Next, participants were classified in one of Marcia's four ego identity statuses (Achievement, Moratorium, Foreclosure, Diffusion) based on their individual scores on the Exploration and Commitment subscales. In addition, participants were asked to provide information on their age, major, and class. Also, they had to disclose their cumulative GPA, an index that served as the participants' achievement data (See [Identity Statuses datafile](#)).

2.3. Ethical considerations

This study has followed the standard ethical guidelines for research. Before data collection, the approval of the Lebanese American University Institutional Review Board was sought and obtained. All participants signed a consent form and were briefed on the purpose of the study and their rights as participants. The data were kept confidential and the anonymity of participants was upheld throughout the duration of the study and in this article.

3. Results

3.1. Instrument's validity and reliability

Research on the validity and reliability of the instrument support its use in Lebanon (Sarouphim and Issa, 2017). Principle analysis with Varimax rotation of the EIPQ has yielded five distinct factors with clear patterns of responding, and explaining 65.08% of the variance. These factors are: Family and Values, Friendship and Dating, Religion and Politics, Sex Roles, and Occupation. Appropriate values were obtained for the EIPQ reliability as well. In this study, reliability as measured by Cronbach alpha was .77 and .79 for the Exploration and Commitment subscales, respectively.

3.2. Identity statuses

As shown in [Table 2](#), the results showed that about an equal percentage of participants were in either Foreclosure (29.41%) or Moratorium (29.02%), followed by a lower percentage in Achievement (23.14%). The lowest percentage of participants was in Diffusion (18.43%). The difference was statistically different $X^2(3) = -18.71, p = 0.04$, with a moderate effect size $r = 2.3$ indicating that the number of participants in Diffusion was significantly lower than that in the other three categories. Inter-correlations among the identity statuses provide further clarification of this result (see [Table 3](#)). Thus, the first hypothesis of this study was supported and the null hypothesis of no differences was

Table 2
Participants' distribution in the identity statuses.

Identity Status	Males	Females	Total
Diffused	20 (18.02%)	27 (18.75%)	47 (18.43%)
Achieved	23 (20.72%)	36 (25.00%)	59 (23.14%)
Foreclosed	33 (29.73%)	42 (29.17%)	75 (29.42%)
Moratorium	35 (31.53%)	39 (27.08%)	74 (29.02%)
Total	111 (43.53%)	144 (56.47%)	255 (100%)

rejected, indicating a statistically higher percentage of participants in the more advanced statuses of Achievement, Foreclosure, and Moratorium than in the less mature status of Diffusion.

3.3. Gender differences

The number and percentages of males and females in each of the identity statuses are depicted in [Table 2](#). As shown, most males were in Moratorium (31.53%); and most females in Foreclosure (29.17%). The percentages of males and females in Diffusion were almost equal (18.01% and 18.02%, respectively). Thus, the overall gender differences were small and not significant across all identity statuses, $X^2(3) = .93, p > .05$, suggesting that both males and females had an equal probability to be in any one of the four identity statuses.

Along the same lines, no gender differences were found in either the Exploration or Commitment subscales (see [Table 4](#)). That is, although males ($M = 62.33, SE = .89$) scored lower than females ($M = 64.06, SE = .76$) in the Exploration subscale, the difference was small and not statistically significant, $t(253) = -1.49, p = .09$, with a negligible effect size $r = .01$. Similarly, in the Commitment Subscale, males ($M = 63.30, SE = .87$) scored slightly lower than females ($M = 63.47, SE = .72$). This difference was not statistically significant either, $t(253) = -.16, p = .15$. In sum, the results of this study did not reveal significant gender differences in identity statuses; thus, the second hypothesis was not supported and the null hypothesis failed to be rejected.

3.4. Academic achievement

The participants' mean GPA differences were small and not significant across the four identity statuses (see [Table 5](#)), with the highest being that of the Achieved group ($M = 3.02, SD = .51$) and the lowest of the Foreclosed group ($M = 2.83, SD = .52$). No significant interaction effect was found for identity status and GPA; $F(3, 248) = 1.58, p > .05, ns, \eta_p^2 = .003$. Thus, the results did not reveal significant differences in achievement among participants in the different identity statuses, and the third null hypothesis of no differences failed to be rejected.

4. Discussion

This study investigated Marcia's ego identity paradigm among Lebanese college students. The results were mixed but mostly aligned with the literature on identity development in late adolescence that revealed that a large portion of individuals in college are still not identity achieved, but most are not in Diffusion either (e.g., Kroger, 2012; Kroger et al., 2010). In this study, the majority of participants (about 60%) were either in Foreclosure or Moratorium, and a small portion only (about 18%) were in Diffusion. About one quarter of the participants (23.14%) were in Achievement. These results are also compatible with the findings of research on identity development in other traditional countries (Schwartz et al., 2012). For example, in one study in Italy, the results suggested that Italian youth delay exploration and settling on an identity until their mid or late twenties, mostly because many live with their parents until 30 years of age and beyond (Crocetti et al., 2012), a practice that is also prevalent in Lebanon and other countries in the Middle East and North Africa (Ahmed, 2010).

Given the context of the study, the results were also compatible with research on the Lebanese culture being patriarchal in nature (Sarouphim,

Table 3
Intercorrelations between the four identity statuses.

	Achievement	Moratorium	Foreclosure	Diffusion
Achievement	–	0.38**	0.29*	0.09
Moratorium	–	–	0.12	0.20
Foreclosure	–	–	–	0.19
Diffusion	–	–	–	–

Note. * < 0.05 ** < 0.01.

Table 4
Gender differences in the exploration and commitment subscales.

Subscale		Levene's Test for Equality of Variances		t	t-test for Equality of Means	
		F	Sig.		df	Sig. (2-tail)
Exploration	Equal variances assumed	0.07	0.80	-1.49	253	0.14
Commitment	Equal variances assumed	0.94	0.33	-0.16	253	0.88

Table 5
Differences in GPA across the four identity statuses.

95% Confidence Interval for Mean				
Status	N	Mean GPA	Std. Deviation	Std. Error
Diffused	47	2.97	0.54	0.08
Achieved	59	3.02	0.51	0.07
Foreclosure	75	2.83	0.52	0.06
Moratorium	74	2.95	0.53	0.06
Total	255	2.93	0.53	0.03

2015). Typically, in such cultures, young people are raised with the expectation that they will adopt the values and beliefs of their family and culture (Ayyash-Abdo et al., 2009), as the family is placed ahead of all other institutions (Kazarian, 2005). As such, the finding that about one-third of participants were in Foreclosure was not surprising. According to Joseph (2004), starting in the mid 1970's with the onset of the civil war in Lebanon, parents felt an added pressure to guide their children's beliefs and ensure their loyalty to the family to shield them from the influence of local militias who were recruiting young adolescents to participate in the fighting. Although the civil war has ended in the early 1990's, the country still suffers from political instability and religious divisions, as well as a rise in radical ideology, which might explain Lebanese parents' continuous pressure on their children to be loyal to the family values. Hence, this loyalty is breeding more adolescents in the Foreclosure status.

How can one explain then the almost equal percentage of participants in Moratorium (29.02%)? Youth in Moratorium engage in high levels of exploration before they make commitments. If the Lebanese culture promotes loyalty to the family and conformity to local values (i.e., Foreclosure) how is it that one third of participants in the sample reported questioning these values? One explanation may be related to the unique position of Lebanon, as an Arab country in the Middle East. Indeed, Lebanon is considered "...in terms of social life, the most liberal and Western-oriented Arab country" (Dwairy et al., 2006, p.13). Although the youth are pressured to conform to the local traditions and norms, they are equally bombarded with messages on individual freedom and independent choice. Another culprit might be a new parenting style adopted in Lebanon called the "mixed flexible pattern" (Dwairy et al., 2006). This style combines both authoritative and permissive methods of child rearing. Parents who use this style encourage their children to become independent and inquisitive while focusing on self-control and pride in one's family traditions. Consequently, children develop an eagerness to explore before making identity commitments. Hence, the mixed results yielded in the current study, with high numbers in both Foreclosure and Moratorium statuses.

Another result incompatible with the literature is the lack of gender differences in participants in the different statuses (Meeus et al., 2010; Sarouphim and Issa, 2017). In the same vein, this finding does not align with the results of research on Egyptian and Kuwaiti youth (Megreya and Ahmed, 2011) that showed a significant difference in the number of foreclosed males over their female counterparts. One possible explanation might be related to the changes that have taken place recently in the Lebanese traditions and norms. Although Lebanon's culture is patriarchal in nature, the country has witnessed a major shift in values in the last

decade, mostly towards gender equality (Issam Fares Institute for Public Policy and International Affairs American University of Beirut, 2012). For example, the repelling of the honor crimes law in 2011 has constituted a major accomplishment toward that goal. Also, great efforts extended by Lebanese feminists and human rights activists for eliminating discrimination against women in various scopes played a major role as well. Consequently, the judiciary in Lebanon "in some cases, went beyond the text of the law and granted women their rights, based on the principles of equity and justice" (Issam Fares Institute for Public Policy and International Affairs American University of Beirut, 2012, p. 14).

Finally, the last finding incompatible with the literature (Berzonsky, 2004; Berzonski and Kuk, 2000) is the lack of achievement differences among participants in the different statuses. Although this finding is significant and might be a true reflection of the peculiarities of the Lebanese settings, the self-reported GPA used in this study as achievement data might have skewed the results. For example, participants in Diffusion could have reported higher than actual GPAs to put themselves in good light. Thus, the findings may have been different had university records (i.e., students' transcripts) been used instead, but these were not made available to the researchers at the time of data collection.

4.1. Limitations and recommendations for future research

One major limitation of this study is the small sample size. In research on identity development, large samples must be used for solid conclusions. Another limitation is related to data sources. In this study, data collection was limited to one university, which restricts diversity in the sample. Finally, a major limitation is the self-reported achievement data due to the researchers' inability to access the participants' achievement records.

In future research, larger and more representative samples must be used to generalize the results to the Lebanese population of youth. Also, other instruments with open-ended questions might allow for deeper probing, such as Marcia's interview protocols (Marcia, 1966). Another recommendation is to conduct comparative studies on identity formation among youth from diverse populations to investigate the universal aspect of this process as well as the unique elements of identity development particular to each culture. Lastly, studies on the influence of religious affiliation on identity development might add to our understanding of identity formation and consequently, to the development of youth programs that contribute to positive identity formation.

4.2. Implications and future directions

This study has shed light on the strategies used by Lebanese youth in identity formation. It has contributed to the literature by exploring a topic not much investigated in Lebanon, although of utmost importance. With the rise of fundamentalism and radical ideologies in the Arab world, the time is ripe to examine the various facets of identity formation in Arab youth. Investigating correlates to identity development, such as family, social, and political influences are needed to develop programs that target positive identity development, taking into consideration the unique setting of the Middle East. For example, youth programs could capitalize on the close kinship ties between family members in the Middle East to promote educating parents in how to develop positive identities in their children and inoculate them against radicalized messages. As Sarouphim and Issa (2017) observed: "The aim [of these programs] would be to provide the Lebanese youth with the skills and knowledge to generate and compare alternatives in several interpersonal and ideological domains for making positive choices and developing healthy identities" (p. 17).

Finally, although this study was conducted on a small scale, the results might indicate new directions worth exploring in further research, such as a paradigm shift in the belief that a large gender gap exists between males and females in patriarchal societies. With the world becoming a global village, especially for young people using social

media, more research should be devoted to exploring the changing values of different cultures and how these play a role in identity development, especially in cultures traditionally known as patriarchal and male-dominated in nature.

Declarations

Author contribution statement

Nadya Kaddoura: Conceived and designed the experiments; Performed the experiments; Analyzed and interpreted the data; Wrote the paper.

Ketty M. Sarouphim: Conceived and designed the experiments; Contributed reagents, materials, analysis tools or data; Wrote the paper.

Funding statement

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Competing interest statement

The authors declare no conflict of interest.

Additional information

Supplementary content related to this article has been published online at <https://doi.org/10.1016/j.heliyon.2019.e02851>.

Acknowledgements

This article is dedicated to the memory of the first author. Nadya Kaddoura was a guidance counselor. She passed away on November 27, 2017 before she had the opportunity to publish this article. She was a loving wife, a wonderful mother and an admirable friend. She is utterly missed.

References

- Ahmed, R.A., 2010. North Africa and the Middle East. In: Bornstein, M.H. (Ed.), *Handbook of Cultural Developmental Science*. Psychology Press, New York.
- Anderson, K., 2008. Who Am I? The Experience of Subjective Identity. Doctoral dissertation, School of Life and Social Sciences, Swinburne University of Technology. Retrieved from: <http://researchbank.swinburne.edu.au/vital/access/services/Download/swin:11511/SOURCE2>.
- Ayyash-Abdo, H., 2010. Adolescence in Lebanon. In: Arnett, J.J. (Ed.), *International Encyclopedia of Adolescence*. Routledge, London, pp. 583–590.
- Ayyash-Abdo, H., Alamuddin, R., 2007. Predictors of subjective well-being among college youth in Lebanon. *J. Soc. Psychol.* 147 (3), 265–284.
- Ayyash-Abdo, H., Bahous, R., Nabhani, M., 2009. Educating young adolescents in Lebanon. In: Mertens, S.B., Anfara, V.A., Roney, K. (Eds.), *An International Look at Educating Young Adolescents*. Information Age Publishing, Inc, Charlotte, NC, pp. 25–46.
- Balistreri, E., Busch-Rossnagel, N., Geisinger, K., 1995. Development and preliminary validation of the ego identity process questionnaire. *J. Adolesc.* 18, 179–192.
- Bergh, S., Erling, A., 2005. Adolescent identity formation: a Swedish study of identity status using the EOM-EIS-II. *Adolescence* 40 (158), 377–396.
- Berzonsky, M.D., Kuk, L.S., 2000. Identity status, identity processing style, and the transition to university. *J. Adolesc. Res.* 15 (1), 81–98.
- Berzonsky, M.D., 2004. Identity style, parental authority, and identity commitment. *J. Youth Adolesc.* 33 (3), 213–220.
- Brinthaup, T.M., Lipka, R.P., 2002. *Understanding Early Adolescent Self and Identity: an Introduction. Understanding Early Adolescent Self and Identity: Applications and Interventions*. University of New York Press, New York.
- Cakir, S., Aydin, G., 2005. Parental attitudes and ego identity status of Turkish adolescents. *Adolescence* 40, 847–859.
- Crocetti, E., Rabaglietti, E., Sica, L.S., 2012. Personal identity in Italy. *New Dir. Child Adolesc. Dev.* 138, 87–102.
- Dwairy, M., Achoui, M., Abouserie, R., Farah, A., Sakhleh, A.A., Fayad, M., Khan, H.K., 2006. Parenting styles in Arab societies: a first cross-regional research study. *J. Cross Cult. Psychol.* 37 (3), 230–247.
- Erikson, E.H., 1968. *Identity: Youth and Crisis*. Norton, New York.
- Flores-Crespo, P., 2007. Ethnicity, identity and educational achievement in Mexico. *Int. J. Educ. Res.* 27 (3), 331–339.
- Ghosn, I.K., 2009. Religion, rule of law, or the family honor? Moral commitment among Lebanese children. *Int. J. Early Child.* 41 (1), 69–86.
- Head, J., 2002. *Working with Adolescents: Constructing Identity*. Falmer Press, London.
- Issam Fares Institute for Public Policy, International Affairs American University of Beirut, 2012. *Research, Advocacy and Public Policy-Making: Women's Citizenship Rights in Lebanon*. Retrieved from: http://www.aub.edu.lb/ifi/public_policy/rapp/Documents/working_paper_series.
- Issam Fares Institute for Public Policy, International Affairs American University of Beirut, 2011. *A Generation on the Move: Insights into the Conditions, Aspirations and Activism of Arab Youth*. Retrieved from: http://www.unicef.org/media/files/Summary_Report_A_GENERATION_ON_THE_MOVE_AUB_IFI_UNICEF_MENARO_.pdf.
- Issam Fares Institute for Public Policy, International Affairs American University of Beirut, 2010. *Youth in the Arab World: Describing the Lebanese Youth: a National and Psycho-Social Surveys*. Retrieved from: https://www.aub.edu.lb/ifi/public_policy/arab_youth/Documents/working_paper_series/ifi_wps03_ay_Harb.pdf.
- Joseph, S., 2004. *Encyclopedia of Women and Islamic Cultures*. Brill, Leiden.
- Kazarian, S.S., 2005. Family functioning, cultural orientation, and psychological well-being among university students in Lebanon. *J. Soc. Psychol.* 145 (2), 141–154.
- Krettenauer, T., 2005. The role of epistemic cognition in adolescent identity formation: further evidence. *J. Youth Adolesc.* 34 (3), 185–198.
- Kroger, J., 2012. The status of identity development in identity research. In: Kerig, P.K., Shultz, M.S., Hauser, S.T. (Eds.), *Adolescence and beyond*. Oxford University Press, New York.
- Kroger, J., Marcia, J.E., 2011. The identity statuses: origins, meanings, and interpretations. In: Schwartz, S.J., Luyckx, K., Vignoles, V.L. (Eds.), *Handbook of Identity Theory and Research*. Springer, New York, pp. 31–53.
- Kroger, J., Martinussen, M., Marcia, J., 2010. Identity change during adolescence and young adulthood: a meta-analysis. *J. Adolesc.* 33, 683–698.
- Kumru, A., Thompson, R., 2003. Ego identity status and self-monitoring behavior in adolescents. *J. Adolesc. Res.* 1, 1–16.
- Lange, C., Byrd, M., 2002. Differences between students' estimated and attained grades in a first-year introductory psychology course as a function of identity development. *Adolescence* 37 (145), 93–107.
- Luyckx, K., Klimstra, T.A., Schwartz, S.J., Duriez, B., 2013. Personal identity in college and the work context: developmental trajectories and psychosocial functioning. *Eur. J. Personal.* 27 (3), 222–237.
- Macksoud, M.S., Aber, J.L., 1996. The war experiences and psychosocial development of children in Lebanon. *Child Dev.* 67 (1), 70–88.
- Marcia, J., 1966. Development and validation of ego identity status. *J. Personal. Soc. Psychol.* 3 (5), 551–558.
- Marcia, J., 1980. Identity in adolescence. In: Marcia, J., Adelson, J. (Eds.), *Handbook of Adolescent Psychology*. Wiley-Interscience, New York, pp. 159–187.
- Marcia, J., 1993. The ego identity status approach to ego identity. In: Marcia, J.E., Waterman, A.S., Matteson, D.R., Archer, S.L., Orlofsky, J.L. (Eds.), *Ego Identity: A Handbook for Psychosocial Research*. Springer-Verlag, New York, pp. 3–41.
- Meeus, W., Van De Schoot, R., Keijsers, L., Schwartz, S.J., Branje, S., 2010. On the progression and stability of adolescent identity formation: a five-wave longitudinal study in early to middle and middle to late adolescence. *Child Dev.* 81 (5), 1565–1581.
- Megraha, A., Ahmed, R., 2011. A cross-cultural investigation of identity statuses in middle eastern countries. *J. North Afr. Stud.* 16 (1), 49–57.
- Nammour, J., 2007. Les identités au Liban, entre complexité et perplexité. *Cités* 1, 49–58.
- Njus, D., Johnson, D.R., 2008. Need for cognition as a predictor of psychosocial identity development. *J. Psychol.* 142 (6), 645–655.
- Rarbo, K., 2009. *Studies on Youth Policies in the Mediterranean Partner Countries; Lebanon*. Retrieved from EuroMed youth III programme website: http://www.youthpolicy.org/national/Lebanon_2009_Youth_Policy_Report.pdf.
- Sarouphim, K.M., 2015. Slowly but surely: small steps toward establishing gifted education programs in Lebanon. *J. Educ. Gift.* 38, 196–211.
- Sarouphim, K.M., 2011. Gifted and non-gifted Lebanese adolescents: gender differences in self-concept, self-esteem and depression. *Int. Educ.* 41 (1), 26–41.
- Sarouphim, K.M., 2010. A model for the education of gifted learners in Lebanon. *Int. J. Special Edu.* 25 (Issue 1), 71–79.
- Sarouphim, K.M., Issa, N., 2017. Investigating identity statuses among Lebanese youth: relation with gender and academic achievement. *Youth Society*.
- Shaar, K.H., 2013. Post-traumatic stress disorder in adolescents in Lebanon as wars gained in ferocity: a systematic review. *Journal of Public Health Research* 2 (2), e17.
- Schwartz, S.J., Beyers, W., Luyckx, K., Soenens, B., Zambanga, B.L., Forthun, L.F., Hardy, S.A., Vazsonyi, A.T., Ham, L.S., Kim, S.Y., Whitbourne, S.K., Waterman, A.S., 2011. Examining the light and dark sides of emerging adults' identity: a study of identity status differences in positive and negative psychosocial functioning. *J. Youth Adolesc.* 40 (7), 839–859.
- Schwartz, S.J., Zambanga, B.L., Meca, A., Ritchie, R.A., 2012. Identity around the world: an overview. *New Dir. Child Adolesc. Dev.* 138, 1–18.
- Soweid, R.A., Khawaja, M., Salem, M.T., 2004. Religious identity and smoking behavior among adolescents: evidence from entering students at the American University of Beirut. *Health Commun.* 16 (1), 47–62.
- Solomontos-Kountouri, O., Hurry, J., 2008. Political, religious and occupational identities in context: placing identity status paradigm in context. *J. Adolesc.* 31, 241–258.