



TRACING EMERGING ADULTHOOD ON UNIVERSITY STUDENTS: THE CASE OF MEDICINE SCHOOL AT A GREEK UNIVERSITY

Natassa Raikou¹ⁱ,

Georgia Konstantopoulou²

¹Department of Educational Sciences and Early Childhood Education,
School of Humanities and Social Sciences,
University of Patras, Rion Campus,
Rion Patras, 26504 Patras,
Greece

²Special Office for Health Consulting Services and
Faculty of Education and Social Work,
School of Humanities and Social Sciences,
University of Patras, Rion Campus,
Rion Patras, 26504 Patras,
Greece

Abstract:

In this paper we investigate the dimensions of emerging adulthood on medical students. Our aim is to explore special characteristics and possible differentiations between university medical students in comparison with other disciplines. We argue that university is a social context that plays a critical role on the development and shaping the identity of young students. In our case we examine medical students of a Greek peripheral university in order to trace the characteristics of their emerging adulthood. The research was conducted between November 2019-January 2020, with the participation of 110 students of School of Medicine of Patras University in Greece. The research tool was Arnett's IDEA questionnaire, adjusted by the researchers. The results confirmed the emerging adulthood characteristics of medical students, nevertheless interesting findings also revealed. It seems that demanding and/or difficult university programs with emphasis on practical experience during studies, foster young students to manifest adult characteristics earlier than their peers.

Keywords: emerging adulthood, medical education, medical students, higher education, university pedagogy

ⁱ Correspondence: email araikou@upatras.gr

1. Introduction

Recent studies on university students as a particular educational group highlight the psychological, pedagogical and sociological parameters of their learning path, while their developmental characteristics are of particular interest (Cranton, 2000; Arnett, 2004; Brookfield, 2012). If we want to mobilize students in learning, it is important firstly to understand them, to realize the way they think, feel and learn (Raikou, 2020). In this paper we focus on university students, in order to gain an understanding of their developmental path towards adulthood and the role of the university context on this process.

Nowadays, in contemporary university the conditions of massification prevail and higher education concerns almost all young adults (Raikou, 2020). Therefore, the university, as a social framework in which the young person exists, lives and acts, has a catalytic effect on his/her development. In Greece, the initiatives developed to study students' characteristics were limited until recently. Modern theoretical approaches provide us with tools through which we can more easily identify the dimensions of their developmental process in relation to their studies in higher education.

The question of the transition to adulthood, the timing or period that this is happening are questions that have been of concern to adult education researchers for more than a century (Lindeman, 1926; Knowles, 1970; Brookfield, 1986; Merriam & Caffarella, 1999; Jarvis, 2010). Today, there is a universal convergence in the view that adulthood is not determined on the basis of the typical criterion of the age. This criterion is not maintained in different eras and societies anyway, while the age at which one can be described as an adult may vary even within a society. In order to classify a person as an adult, we should consider whether s/he is in the state of adulthood, while a broader consensus among researchers is identified as to the critical importance of taking on roles and responsibilities for the transition to adulthood (Kokkos, 2005).

2. Emerging Adulthood

The period of university studies, meaning the developmental period after adolescence and in the early years of adulthood (from 18 and up to almost 30 years old), have been the subject of research in recent years. The American developmental psychologist Jeffrey Jensen Arnett (2004) systematically studied the specific period of development of the individual, giving it the term emerging adulthood. According to relevant research (Arnett, 2007; Reifman, Arnett & Collwell, 2007), emerging adulthood is a period associated with developmental challenges, which in some cases can be difficult, while there is a great heterogeneity, mainly due to socio-cultural differences.

As Arnett (2000) states, emerging adulthood is not seen worldwide among young people, but especially in developed modern societies, which provide the opportunity to explore the different alternative paths in their lives. However, even among these societies, differences in nationality, economy, social classes and culture of each region are

distinguished (Arnett, 2004, 2014). The findings of these surveys, with emphasis on the impact of the socio-cultural context on shaping the characteristics of emerging adulthood, confirmed by corresponding surveys carried out in recent years in the Greek field, mainly on students of Greek universities (Petrogiannis, 2011; Leontopoulou, Mavridis, & Giotsa, 2016; Galanaki & Leontopoulou, 2017; Galanaki & Sideridis, 2018).

Arnett (2000, 2004, 2014) in his work identified five dimensions of emerging adulthood, which include (a) identity exploration, (b) instability, (c) self-focus, (d) feeling in-between, and (e) possibilities. In other words, despite the socio-cultural heterogeneity, the above research has shown that these dimensions are identified, however, with different connotations and gravity depending on the context. The dimensions of emerging adulthood are described as follows:

- a) During this period, identity is investigated. Young people test possibilities and process their thoughts on how they want to live their lives and on the commitments, they will make, mainly by focusing on relationships, profession and ideology (Arnett, 2000). Although the formation of identity starts from adolescence (Erikson, 1968), however during the emerging adulthood the young person, without full dependence on parents in adolescence and without committing yet to specific roles, has the ability to try alternative options and explore different lifestyles. It is perhaps the "*best opportunity for such a form of self-discovery*" (Arnett, 2004, p. 8).
- b) This is probably the most unstable period of human life. During this time there are usually very frequent changes in love relationships and work. According to Arnett (2014) this instability is mainly attributed to the internal search for the identity of young people. However, in some cases he claims to be due to external factors, such as a dismissal in the workplace or different choices of their partner (Arnett, 2000, 2014). However, instability can also occur with regard to the young person's studies. Contact with reality is likely to lead them to change their original plan for what they wish to study and what profession they will choose to do in the future.
- c) At this time the person focuses on himself, as at no other time in his life. The demands of the parents and the school of adolescence and the professional and family obligations of adulthood, absorb the individual so that he does not have the ability to turn to himself and think about himself. On the contrary, young people in emerging adulthood probably have the most time to do so, because their obligations are usually less. They have the opportunity to focus on themselves, which is a positive thing according to Arnett (2004), because in this way they discover their potential, acquire useful skills for the future, both in interpersonal and professional terms, while learning to act as self-sufficient individuals and rely on their own skills and strengths.
- d) Individuals currently have the feeling of an intermediate situation because they may feel that they cannot identify themselves either as teenagers or as adults. In many cases they are partially dependent on parents, and do not yet fully feel the ability to take responsibility and make independent decisions, which young

people associate with adulthood, because this ability is gradually acquired (Arnett, 2014). This is a slow process linked to previous dimensions, because the instability observed, as well as the exploration of identity and the focus on the self that characterize emerging adulthood, take time and justify the nearly ten-year duration of this development period.

- e) It is a period filled with possibilities and optimism. Young people, despite the difficulties they often have to manage, have a positive attitude and high expectations for their future. Due to the fact that most of them have not yet experienced serious problems or critical life events and have not been forced to make important decisions, they feel optimistic and have great choice, as well as many possible scenarios for their future.

3. The university context: Being a student at School of Medicine

As mentioned above, the university is a social framework, which has an impact on the formation of students' lives. Particularly in Greece, where the majority of young people attend university, this influence is significant. The university framework could be seen as an intermediate stage between the family and the wider social context. It contributes, in other words, to the transition from the full family dependency of adolescence to the autonomy of adulthood.

Research carried out on university students in Greece confirms the existence of the same dimensions of emerging adulthood in Greek students (Petrogiannis, 2011; Leontopoulou, Mavridis, & Giotsa, 2016; Galanaki & Leontopoulou, 2017; Galanaki & Sideridis, 2018). At the same time, however, research focusing on specific groups of students has begun to be carried out in recent years, in order to investigate the specific conditions of education and how they affect the development of young people. In particular, studies have been carried out on the emerging adulthood of Greek students concerning the role of practicum in the development of future teachers (Raikou & Filippidi, 2019), as well as the contribution of the Erasmus student mobility programme to the emerging adulthood of the participants (Mastora, Panagopoulou & Raikou, 2020). The results of the above researches reveal that those experiences during their studies had significant benefits for students, both in shaping their identity and in developing professional and social skills. At the same time, a survey of fighter pilots showed that student pilots feel adults in rates at least two times higher than their peers and this should be addressed, on the one hand, to the kind of education they have received and, on the other hand, the feeling of responsibility that is received from their new role (Kapogiannis, Karalis & Raikou, 2021).

On this basis, and since this is a period of shaping the identity of the young person, the question arises as to whether the subject of study relates to differences in the dimensions of emerging adulthood. In other words, it is interesting to explore other specialties related to subjects of increased responsibility, such as medical studies. In Greece, graduating the Faculty of Medicine requires attendance of six academic years.

The teaching includes lectures, tutorials and exercises, clinical training or laboratory training. However, in order to obtain the doctor's license, one needs after graduation to complete a period of practice as well as medical specialty. This is a very demanding profession with great responsibility and dedication, which requires many years of effort by the young student.

4. Research

The aim of this research is to investigate the period of emerging adulthood experienced by young people studying at Medicine School, in order to detect and understand the factors and parameters that influence this period. The main research questions regard how emerging adulthood is related to the effective training of medical students, as well as how the characteristics of the period of emerging adulthood affect the development of motives for the successful completion of the medical studies for the future doctors.

From the overview of Greek and international literature, it became clear that the stage of emerging adulthood includes a large number of factors that affect the way in which young people participate in the educational procedure. Nevertheless, through the bibliographical review no studies on the emerging adulthood of medical students could be found. The survey was approved by the Ethics Committee of the University of Patras and took place from November 2019 until March 2020, just before the beginning of the quarantine due to COVID-19 pandemic. The participants were 110 medical students from the University of Patras, aged between 18-28 years old, 37 of whom were male (33.6%) and 73 were women (66.4%).

The research tool was a questionnaire of 75 closed-type questions, in most of which the five-level Likert scale was applied. The questionnaire included three parts: demographics, a part of Arnett's IDEA questionnaire (2004), adjusted by the researchers, as well as questions about participants' views on medical education.

The research procedure included five distinctive stages:

- The stage of determining the participants to be studied,
- The stage of ensuring the permission required for the research,
- The examination of the information collected from various sources available to us (literature, electronic databases, participants)
- The selection of the research tool to be used, through which the useful data for our study shall be obtained
- The application of the collection and sorting procedure for data processing.

5. Results

Of the participants, the majority said they live alone (69.1%), 20.9% live with their parents and 10% cohabitate; in terms of parents' educational level, 76.3% of fathers and 58.2% of mothers have completed higher education studies. Compared to their socio-economic status, the majority are at a satisfactory level (64.5%) followed by 21.8% moderate, 10.9%

high and 2.7% low. During their studies, 73.6% of the participants said they had worked, either permanently or periodically, while 29.1% mentioned that they faced financial problems.

The majority of participants (values above 60%) consider that marriage or long-term relationship, the creation of a family as well as the care of the home and the family, are not characteristics of adulthood, either for the man or the woman. On the other hand, what are distinguished as adult characteristics are responsibility (63.6%), economic independence (60%) and independence from parents (60%, that is, not living in your parents' home, emotional weaning by parents and the formation of personal beliefs without influence from parental authorities). These findings partly confirm the conclusions that were drawn in the relevant researches of Arnett (1998, 2000, 2004) and Petrogiannis (2011).

Nevertheless, the percentages on assuming responsibilities (67.2% - Petrogiannis: 89.9%), financial independence (60% - Petrogiannis: 82.8%) and marriage and creation of family (15.4% - Petrogiannis: 29.1%) were lower than Petrogiannis study which was conducted ten years ago on Greek students of different disciplines, while independence from family home was higher (60% - Petrogiannis: 53.3%). In comparison with Kapogiannis, Karalis & Raikou (2021) on fighter pilots, all the above results referring to medical students were much lower than the corresponding results about student fighter pilots.

At the same time, the majority of medical students are optimistic about the future, considering that they will have a better life than their parents. In particular, they believe that compared to their parents they will have a higher quality of life (68.2%), better financial and professional achievements (70%), as well as better interpersonal relationships (78.2%). Especially with regard to the level of professional achievements, almost all participants (93.6%) think they will do better than their parents, and this is obviously due to prevailing perceptions of the high status of the doctor's profession.

In an attempt to associate all the above with the training of the medical students, we have recorded the participants' opinions on questions concerning their assumption of their choices and their ability to respond on them. More specifically, almost half of them feel that they have taken a lot of responsibilities in an early stage of their lives (44.5%), they feel "pressure" (55.5%) and mostly the fear of failure (60.9%). On the other hand, they think that they are able to respond to requirements (52.7%), they have faith in their potential (49%), as well as in their choices and their attitudes towards taking responsibilities (40%).

In the question "do you think you have reached adulthood" (Table 1), 38.2% of them chose the answer "yes", 1.8% the answer "no", 50.9% the answers "in some respect yes" and 9.1% "in some respect no". As it can be concluded from the data of other researches in the Greek context (Table 2), the answer "yes", i.e., the clear choice that they feel like adults, ranges between 15.6% and 37.7% for the university students (in the oldest research among them), while the incapability of a clear choice ranges from 59.3% to 80.7% (Kapogiannis, Karalis & Raikou, 2021).

Table 1: Medical students' assumptions on reaching adulthood

Do you think you have reached adulthood?	N	%
In some respect YES	56	50.9
YES	42	38.2
In some respect NO	10	9.1
NO	2	1.8

In particular, in terms of their sense of themselves and their readiness to take on roles and responsibilities attributed to an adult, the majority (68.2%) feel ready to take responsibility for their own actions, half (50%) to independent of their parents and just under half to make commitments (47.3%). The students take a vague attitude (neither agree nor disagree 32.7%) regarding commitment to a long-term relationship, while a small percentage feel ready to become parents (13.6%). These findings confirm the fact that the students who are in a "critical" age, are going, like their peers, through the period of emerging adulthood (Arnett, 2000, 2004, 2014).

It is clear from the above that a significant proportion already feel adults, while about half of the participating medical students feel that they are on the path to adulthood, without having yet fully conquered it. These findings are similar to the corresponding conclusions of Petrogiannis (2011) and the results of Galanaki & Sideridis study (2018) on the incapability of a clear choice (Table 2). However, we see significant variations in comparison with Galanaki & Leontopoulou (2017), Tsipianitis & Karalis (2018) and Kapogiannis, Karalis & Raikou (2021). It seems that medical students, with the exception of student fighter pilots, consider themselves as adults in a larger percentage than their peers and in a similar percentage with vocational institute students.

Table 2: Perceived adult status in various studies in Greece

Study/Researchers	Sample	Yes (%)	In some respect yes, in some respect no (%)	No (%)
Petrogiannis, 2011	183 undergraduate students from various Departments of the University of Ioannina and the Technological/Vocational Institute, Ioannina, Greece	37.7	59.3	3.0
Galanaki & Leontopoulou, 2017	784 undergraduate students from various Departments of the National and Kapodistrian University, Athens, Greece	15.6	71.4	13.0
Galanaki & Sideridis, 2018	814 undergraduate students from various Departments of the National and Kapodistrian University and the Athens University of Economics and Business, Athens, Greece	27.4	62.7	9.9
Tsipianitis & Karalis, 2018	332 undergraduate students from two Departments of the University of Patras, Patras, Greece	16.9	80.7	3.3
Kapogiannis,	81 student fighter pilots of the Hellenic Air Force	74.1	24.7	1.2

Karalis & Raikou, 2021				
	110 undergraduate students from the Medicine School of the University of Patras, Patras, Greece	38.2	60	1.8

Source: Kapogiannis, Karalis & Raikou, 2021.

In our attempt to link the above-mentioned characteristics of emerging adulthood to what constitutes a motive for the successful completion of the training, we have recorded the participants' opinions to questions concerning earnings, distinction among colleagues, personal satisfaction of successfully achieving a goal, acquisition of new knowledge and skills, gaining confidence in their abilities and improving their self-esteem.

The main motives that urge young doctors to successfully complete their studies seem to be similar with student pilots and concern mostly self-development issues (Kapogiannis, Karalis & Raikou, 2021). These include personal satisfaction of successfully fulfilling a goal (91.8% - 95% student pilots), acquisition of new knowledge and skills (88.2% - 95.1%), gaining confidence in their strengths (86.4% - 97.5% student pilots) and improvement of their self-esteem (88.2% - 90.1% student pilots). On the other hand, only half of them (48.2%) are motivated by the desire to distinguish among colleagues, despite the high-demanding training environment.

An interesting fact is that less than half of the participants (44.6%) consider financial earnings as a clear motive for the successful completion of their studies (Table 3). This finding diverges from what is stated in the research by Galanaki & Sideridis (2018), who came to the conclusion that, gaining financial independence has been considered as the most important characteristic of adulthood by the majority of Greeks for a very long time. This divergence could be interpreted by the high level of unemployment observed in doctors in recent years, as opposed to the financial security offered by this profession in the past.

Table 3: Medical students' motives for the successful completion of their studies

Motive	Disagree (totally-just)	Neither disagree nor agree	Agree (totally-just)
Financial earnings	24 21.8%	37 33.6%	49 44.6%
Distinction among colleagues	24 21.8%	33 30%	53 48.2%
Personal satisfaction of successfully fulfilling a goal	2 1.8%	7 6.4%	101 91.8%
Acquisition of new knowledge and skills	5 4.5%	8 7.3%	97 88.2%
Gaining confidence in my strengths	3 2.7%	12 10.9%	95 86.4%
Improvement of my self-esteem	3 2.7%	10 9.1%	97 88.2%

6. Conclusions

The aim of this research was to investigate the period of emerging adulthood experienced by young medical students, in order to detect and understand how emerging adulthood is related to the effective training of medical students, as well as how the characteristics of the period of emerging adulthood affect the development of motives for the successful completion of the medical studies for the future doctors. The survey involved 110 medical students from the University of Patras, aged between 18-28 years old. The participants answered a questionnaire with closed-ended questions.

Most of the findings confirm previous studies on Greek students, regardless the discipline of study. The majority acknowledges the phase of transition to adulthood that they are going through, feeling in-between and not totally independent and responsible for their actions, but optimistic about the future. They have also focused on themselves, giving priority to their personal development as individuals and leaving beside other social roles (such as husband/wife, parent, etc.) or what is called a mature social behaviour (in driving, speaking, communicating, etc.). In other words, the dimensions of emerging adulthood as described by Arnett (2004) can be all traced by the answers of the participants.

Nevertheless, it seems that medical students consider themselves as adults in a larger percentage than their peers (except for student pilots) and in a similar percentage with vocational institute students. This perceived adult status should be attributed, on the one hand, to the kind of education they have received and, on the other hand, the feeling of responsibility that is derived from their new role. The common element of these different disciplines seems to be the early inclusion of practical exercise during studies, meaning the development of students' professional role from the beginning of their studies.

In other words, the medical studies include years of clinical training and practice in hospitals. From the beginning of their studies, young doctors are in close contact with patients and the demanding conditions of their profession, and this experience possibly fosters skills such as responsibility and dedication much earlier than their peers. Therefore, it seems that when students, who could undoubtedly be considered as emerging adults, are studying in a demanding and/or difficult training program (Kapogiannis, Karalis & Raikou, 2021) with emphasis on practical experience, they are 'forced' to manifest adult characteristics earlier than their peers.

Conflict of Interest Statement

The authors declare no conflicts of interest

About the Authors

Dr. Natassa Raikou is Teaching Staff in Adult and Higher Education at the University of Patras and Tutor-Counselor at the Hellenic Open University. She has a long teaching experience on higher education and teachers training programs, with publications in

international and Greek journals. She is also member of several International and Greek scientific networks. Her research interests include adult education, university pedagogy, transformative learning, emerging adulthood and critical reflection.

Dr. Georgia Konstantopoulou is a Clinical Psychologist in the Department of Education Sciences and Social Work (Laboratory and Teaching Staff). She has clinical and psychotherapeutic experience since 1999 and from 2009 until today she supports with her participation the "Special Office for Health Consulting Services" of the University of Patras. Her main research interest since 2014 is "Modeling of the Telemedicine Service for Distance Diagnosis and Evaluation of Emotional Disorders" and she has participated in conferences working with her colleagues in the use of machine learning to prevent suicide.

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